A° 2024 **N° 92**

PUBLICATIEBLAD

MINISTERIËLE REGELING MET ALGEMENE WERKING, van de 29ste augustus 2024 houdende wijziging van de Regeling nadere voorschriften toezicht luchtvaart

———————

De Minister van Verkeer, Vervoer en Ruimtelijke Planning,

Overwegende:

dat het wenselijk is de bijlagen 1 tot en met 11 bij de Regeling nadere voorschriften toezicht luchtvaart[1] te vervangen;

Gelet op de artikelen 2A, 5, tweede lid, 15, 36, 44, 84, derde en vierde lid, 81, zevende lid, 93, derde lid, 99, artikel 113, zesde lid, 114, 115, 118, zesde lid, 120, 121, 125, 127, van het Landsbesluit toezicht luchtvaart[2];

Heeft besloten:

Artikel I

De bijlagen, genoemd in artikel 1 van de Regeling nadere voorschriften toezicht luchtvaart worden vervangen door de bijlagen behorende bij deze regeling.

Artikel II

Deze regeling treedt in werking met ingang van de dag na die waarop het is bekendgemaakt.

De Minister van Verkeer, Vervoer
en Ruimtelijke Planning,
C.F. COOPER

Uitgegeven de 13de september 2024
De Minister van Algemene Zaken,
G.S. PISAS

[1] P.B. 2015, no. 60.
[2] P.B. 2003, no. 56, zoals laatstelijk gewijzigd bij P.B. 2008, no. 17.

Toelichting behorende bij de Ministeriële regeling met algemene werking, van de 29ste augustus 2024 tot wijziging van de Regeling nadere voorschriften toezicht luchtvaart:

§1. Algemeen

Het Verdrag van Chicago kent verschillende annexen oftewel bijlagen genoemd. In totaal bestaan er 19 annexen of bijlagen waarvan een aantal van deze bijlagen uit verschillende volumes bestaan. Dit verdrag met haar bijlagen heeft geen directe werking. Ze moet worden geïmplementeerd in nationale wet- en regelgeving. De annexen bij het verdrag zijn aan regelmatige wijziging onderhevig. Om de implementatie van deze annexen voor kleine landen - zoals Curaçao - te vergemakkelijken, heeft de burgerluchtvaartautoriteit van de Verenigde Staten van Amerika, de Federal Aviation Administration (FAA) model-regelgeving opgesteld. Deze modelregelgeving wordt aangeduid als "Model Civil Aviation Regulation" (MCAR) en bestrijkt de Annexen 1, 6, 7 en 8 van het Verdrag van Chicago. Deze MCARs zijn aan verandering onderhevig telkens wanneer voornoemde Annexen wijzigen.

Doordat de MCARs een aantal versie wijzigingen heeft ondergaan, was het noodzakelijk om ook de Civil Aviation Regulations (CCARs), die bijlagen zijn bij de Regeling nadere voorschriften toezicht luchtvaart en die gebaseerd zijn op de MCARs versie 2.8, te wijzigen.

Voor het opstellen van de bij deze regeling behorende bijlagen, CCARs, is gebruik gemaakt van de modelregelgeving opgesteld door de FAA, versie 2.11 van november 2022.

§2. Financiële paragraaf

De bij deze ministeriële regeling behorende bijlagen, de nieuwe CCARs, houden op onderdelen wijzigingen in, maar zullen geen substantiële wijziging veroorzaken in de normale werkzaamheden van de Curaçaose Burgerluchtvaart Autoriteit en daarmede de landsbegroting. Er zijn derhalve over het algemeen geen financiële consequenties verbonden aan onderhavige regeling.

De Minister van Verkeer, Vervoer en Ruimtelijke Planning,
C.F. COOPER

CURAÇAO CIVIL AVIATION REGULATIONS

PART 1 – GENERAL POLICIES, PROCEDURES, AND DEFINITIONS

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CCAR PART 1 – GENERAL POLICIES, PROCEDURES, AND DEFINITIONS

1.1 GENERAL POLICIES

1.1.1.1 RULES OF CONSTRUCTION

(a) Throughout these regulations the following word usage applies:

(1) *Shall* indicates a mandatory requirement.

(2) *"No person may ..."* or *"a person may not ..."* means that no person is required, authorised, or permitted to perform an act described in a regulation.

(3) *May* indicates that discretion can be used when performing an act described in a regulation.

(4) *Will* indicates an action incumbent upon the Authority.

(5) *Includes* means "includes but is not limited to."

(6) *Approved* means the Authority has reviewed the method, procedure, or policy in question and has issued a formal written approval.

(7) *Acceptable* means the Authority has reviewed the method, procedure, or policy in question and has neither objected to nor approved its proposed use or implementation.

(8) *Prescribed* means the Authority has issued written policy or methodology that imposes either a mandatory requirement, if the written policy or methodology states "shall," or a discretionary requirement, if the written policy or methodology states "may."

1.1.1.2 APPLICABILITY

(a) These regulations shall apply to all persons operating or maintaining the following:

(1) Curaçao-registered aircraft;

(2) Aircraft registered in another Contracting State that are operated by a person licensed by Curaçao and maintained in accordance with the standards of the aircraft's State of Registry, wherever that maintenance is performed; or

(3) Aircraft of other Contracting States operating in Curaçao.

(b) Regulations addressing persons certificated under any part of these regulations apply also to any person who engages in an operation governed by any part of these regulations without the appropriate certificate and associated operations specifications, licence, or similar document required as part of the certification.

(c) Regulations addressing general matters establish minimum standards for all aircraft operated in Curaçao. Specific standards applicable to the holder of a certificate shall apply if they conflict with a more general regulation.

(d) Foreign air operators who conduct commercial air transport into, from, or within Curaçao shall be governed by the special limitations and specific approvals of the operations specifications issued by the Authority and by those requirements in CCAR Parts 7, 8, and 10 of these regulations that specifically address commercial air transport. Regulations that address AOC holders apply only to operators certificated by Curaçao

1.1.1.3 ORGANISATION OF REGULATIONS

(a) These regulations are subdivided into five hierarchical categories:

(1) *Part* refers to the primary subject area.

(2) *Subpart* refers to any subdivision of a part.

(3) *Section* refers to any subdivision of a subpart.

(4) *Subsection* refers to the title of a regulation and can be a subdivision of a subpart or section.

(5) *Paragraph* refers to the text describing the regulations. All paragraphs are outlined alphanumerically in the following hierarchical order: (a), (1), (i), (A), 1.

(b) Abbreviations used within each part are defined at the beginning of those parts.

(c) Notes appear in subsections to provide exceptions, explanations, and examples to individual requirements.

(d) Regulations may refer to IS, which provide additional detailed requirements that support the purpose of the subsection and, unless otherwise indicated, have the legal force and effect of the referring regulation. The rules of construction specified in 1.1.1.1 of this part shall apply to each IS.

1.1.1.4 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **2D –** two-dimensional

(2) **3D –** three-dimensional

(3) **AAT –** airworthiness approval tag

(4) **AD –** Airworthiness Directive

(5) **ADS –** automatic dependent surveillance

(6) **ADS-B –** automatic dependent surveillance – broadcast

(7) **ADS-C –** automatic dependent surveillance – contract

(8) **AIP –** Aeronautical Information Publication

(9) **AMM –** Aircraft Maintenance Manual

(10) **AMO –** approved maintenance organisation

(11) **AMT –** aviation maintenance technician

(12) **AOC –** air operator certificate

(13) **AOM –** Aircraft Operating Manual

(14) **APV –** approach procedure with vertical guidance

(15) **ATC –** air traffic control

(16) **ATO –** approved training organisation

(17) **ATS –** air traffic service

(18) **C2 –** command and control

(19) **C2CSP –** C2 Link communication service provider

(20) **C2 Link –** command and control link

(21) **CAT I –** Category I

(22) **CAT II –** Category II

(23) **CAT III –** Category III

(24) **CDFA –** continuous descent final approach

(25) **CFIT –** controlled flight into terrain

(26) **CP –** co-pilot

(27) **CPL –** commercial pilot licence

(28) **DA –** decision altitude

(29) **DA/H –** decision altitude/height

(30) **DCA –** Director General of Curaçao Civil Aviation Authority

(31) **DH –** decision height

(32) **EDTO –** extended diversion time operations

(33) **EFB –** electronic flight bag

(34) **ELT –** emergency locator transmitter

(35) **EVS –** enhanced vision system

(36) **FAS –** final approach segment

(37) **FATO –** final approach and take-off area

(38) **FSTD –** flight simulation training device

(39) **GLS –** global landing system

(40) **IAP –** instrument approach procedure

(41) **ICAO –** International Civil Aviation Organization

(42) **IFR –** instrument flight rules

(43) **ILS –** instrument landing system

(44) **IMC –** instrument meteorological conditions

(45) **IS –** Implementing Standards

(46) **LDP –** landing decision point

(47) **MCM –** Maintenance Control Manual

(48) **MDA –** minimum descent altitude

(49) **MDA/H –** minimum descent altitude/height

(50) **MDH –** minimum descent height

(51) **MEL –** minimum equipment list

(52) **MLS –** microwave landing system

(53) **MMEL –** master minimum equipment list

(54) **MSL –** mean sea level

(55) **NM –** nautical mile

(56) **NOTAM –** Notice to Airmen

(57) **NPA –** non-precision approach

(58) **OCA –** obstacle clearance altitude

(59) **OCH –** obstacle clearance height

(60) **OM –** Operations Manual

(61) **PA –** precision approach

(62) **PBC –** performance-based communication

(63) **PBN –** performance-based navigation

(64) **PBS –** performance-based surveillance

(65) **PF** – pilot flying

(66) **PIC –** pilot-in-command

(67) **PM** – pilot monitoring

(68) **PPL(A) –** private pilot licence – aeroplane

(69) **PSR –** primary surveillance radar

(70) **QoS –** quality of service

(71) **QoSD –** quality of service delivered

(72) **QoSR –** quality of service required

(73) **RCP –** required communication performance

(74) **RNAV –** area navigation

(75) **RNP –** required navigation performance

(76) **RPA –** remotely piloted aircraft

(77) **RPAS –** remotely piloted aircraft system

(78) **RPS –** remote pilot station

(79) **RSP –** required surveillance performance

(80) **RVR –** runway visual range

(81) **SARPs –** Standards and Recommended Practices

(82) **SBAS –** satellite-based augmentation system

(83) **SMS –** safety management system

(84) **SNOWTAM –** Snow Notice to Airmen

(85) **SSP –** State safety programme

(86) **SSR –** secondary surveillance radar

(87) **SVS –** synthetic vision system

(88) **TC –** type certificate

(89) **TDP –** take-off decision point

(90) **TEM –** threat and error management

(91) **TSO –** technical standard order

(92) **UA –** unmanned aircraft

(93) **UAS –** unmanned aircraft system

(94) **ULD –** unit load device

(95) **UN –** United Nations

(96) **UPU –** Universal Postal Union

(97) **USD –** U.S. dollars

(98) **UTC –** coordinated universal time

(99) **VFR –** visual flight rules

(100) **VMC –** visual meteorological conditions

(101) **VNAV –** vertical navigation

1.2 GENERAL ADMINISTRATIVE RULES GOVERNING TESTING, LICENCES, AND CERTIFICATES

1.2.1.1 DISPLAY AND INSPECTION OF LICENCES AND CERTIFICATES

(a) PILOT LICENCE.

(1) To act as a pilot of a civil aircraft of Curaçao registry, a pilot shall be in physical possession of, or shall have readily accessible in the aircraft, the pilot licence or a special purpose authorisation issued under these regulations.

(2) To act as a pilot of a civil aircraft of foreign registry within Curaçao, a pilot shall be the holder of a valid pilot licence and shall be in physical possession of the pilot licence or shall have the pilot licence readily accessible in the aircraft.

(b) FLIGHT INSTRUCTOR LICENCE. A person who holds a flight instructor licence shall have that licence, or other documentation acceptable to the Authority, in that person's physical possession or readily accessible in the aircraft or at the worksite when exercising the privileges of that licence.

(c) OTHER AIRMAN LICENCE. A person required by any part of these regulations to have an airman licence shall have that licence in that person's physical possession or readily accessible in the aircraft or at the worksite when exercising the privileges of that licence.

(d) MEDICAL CERTIFICATE. A person required by any part of these regulations to have a current medical certificate shall have that certificate in that person's physical possession or readily accessible in the aircraft or at the worksite when exercising the privileges of that certificate.

(e) ATO CERTIFICATE. Each holder of an ATO certificate shall display that certificate in the school in a place that is normally accessible to the public and is not obscured.

(f) CERTIFICATE OF AIRCRAFT REGISTRATION. Each owner or operator of an aircraft shall carry the certificate of aircraft registration on the aircraft and shall have that certificate available for inspection.

(g) CERTIFICATE OF AIRWORTHINESS. Each owner or operator of an aircraft shall display the certificate of airworthiness for that aircraft in the cabin of the aircraft or at the entrance to the aircraft flight deck.

(h) AMO CERTIFICATE. Each holder of an AMO certificate shall prominently display that certificate in a place that is accessible to the public in the principal place of business of the AMO.

(i) AERIAL WORK CERTIFICATE. Each owner or operator of an aircraft engaged in aerial work shall carry the aerial work certificate or a copy of that certificate on the aircraft and shall have the certificate available for inspection. When the Authority issues equivalent authorisations in lieu of a certificate to authorise aerial work, those authorisations, or a copy thereof, shall be on the aircraft and available for inspection.

(j) AOC. Each owner or operator of an aircraft engaged in commercial air transport shall carry the AOC or a copy of the AOC on the aircraft and shall have that certificate available for inspection.

(k) INSPECTION OF LICENCE, CERTIFICATE, OR AUTHORISATION. Each person who holds a licence, a medical certificate, or an authorisation required by these regulations shall present it for inspection upon a request from:

(1) The Authority; or

(2) Any national or local law enforcement officer.

1.2.1.2 CHANGE OF NAME

(a) A holder of a licence or certificate issued under these regulations may apply to change the name on that licence or certificate. The holder shall include with any such request:

(1) The current licence or certificate; and

(2) A copy of the marriage licence, court order, or other document verifying the name change.

(b) The Authority will return to the licence or certificate holder the documents specified in paragraph 1.2.1.2(a) of this subsection.

1.2.1.3 CHANGE OF ADDRESS

(a) The holder of a licence or certificate who has made a change in permanent mailing address shall not, after 30 days from the date of that change, exercise the privileges of the licence or certificate unless the holder has notified the Authority in writing of the new permanent mailing address, or the current residential address if the permanent mailing address includes a post office box number.

1.2.1.4 REPLACEMENT OF A LOST OR DESTROYED AIRMAN LICENCE, MEDICAL CERTIFICATE, OR KNOWLEDGE TEST REPORT

(a) An applicant or holder of an airman licence or a medical certificate who has lost or destroyed one of the following documents issued under these regulations shall request a replacement in writing from the office designated by the Authority:

(1) Airman licence;

(2) Medical certificate; or

(3) Knowledge test report.

(b) The airman or applicant shall state in the request letter:

(1) The name of the airman or applicant;

(2) The permanent mailing address of the airman or applicant or, if the permanent mailing address includes a post office box number, that person's current residential address;

(3) The Social Security number or equivalent national identification number of the airman or applicant;

(4) The date and place of birth of the airman or applicant; and

(5) Any available information regarding the:

(i) Grade, number, and date of issuance of the airman licence, ratings, or medical certificate, if applicable;

(ii) Date of the medical examination, if applicable; and

(iii) Date the knowledge test was taken, if applicable.

(c) After receiving a copy from the Authority confirming that the lost or destroyed document was issued, the airman shall carry the copy in lieu of the lost or destroyed document for up to 60 days pending the airman's receipt of a duplicate licence or medical certificate.

1.2.1.5 FALSIFICATION, REPRODUCTION, OR ALTERATION OF APPLICATIONS, LICENCES, CERTIFICATES, LOGBOOKS, REPORTS, OR RECORDS

(a) No person shall make or cause to be made concerning any licence, certificate, rating, qualification, or authorisation, or application for or duplicate thereof, issued under these regulations:

(1) Any fraudulent or intentionally false statement;

(2) Any fraudulent or intentionally false entry in any logbook, record, or report that these regulations require or use to show compliance with any requirement of these regulations;

(3) Any reproduction for fraudulent purpose; or

(4) Any alteration.

(b) Any person who commits any act prohibited under paragraph 1.2.1.5(a) of this subsection shall have the airman licence, rating, certificate, qualification, or authorisation revoked or suspended.

1.2.1.6 VOLUNTARY SURRENDER OR EXCHANGE OF LICENCE

(a) The holder of a licence issued under these regulations may voluntarily surrender it for:

(1) Cancellation;

(2) Issuance of a lower grade licence; or

(3) Another licence with specific ratings deleted.

(b) A licence holder requesting voluntary surrender of a licence shall include the following signed statement or its equivalent: “This request is made for my own reasons, with full knowledge that my [INSERT NAME OF LICENCE OR RATING, AS APPROPRIATE] may not be reissued to me unless I again pass the tests prescribed for its issuance.”

1.2.1.7 PROHIBITION ON PERFORMANCE DURING MEDICAL DEFICIENCY

(a) A person who holds a current medical certificate issued under these regulations shall not act in a capacity for which that medical certificate is required while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the required medical certificate; or

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the required medical certificate.

1.2.1.8 PSYCHOACTIVE SUBSTANCE TESTING AND REPORTING

(a) Any person who performs any function requiring a licence, certificate, rating, qualification, or authorisation prescribed by these regulations directly or by contract for a certificate holder under these regulations may be tested for usage of psychoactive substances.

(b) Any person subject to these regulations who refuses to submit to a test to indicate the percentage by weight of alcohol in the blood, when requested by a law enforcement officer or the Authority, or refuses to furnish or to authorise the release of the test results requested by the Authority may:

(1) Be denied any licence, certificate, rating, qualification, or authorisation issued under these regulations for a period of up to 1 year after the date of that refusal; or

(2) Have the licence, certificate, rating, qualification, or authorisation issued under these regulations suspended or revoked.

(c) Any person subject to these regulations who refuses to submit to a test to indicate the presence of narcotic drugs, marijuana, or depressant or stimulant drugs or substances in the body, when requested by a law enforcement officer or the Authority, or refuses to furnish or to authorise the release of the test results requested by the Authority may:

(1) Be denied any licence, certificate, rating, qualification, or authorisation issued under these regulations for a period of up to 1 year after the date of that refusal; or

(2) Have the licence, certificate, rating, qualification, or authorisation issued under these regulations suspended or revoked.

(d) Any person subject to these regulations who is convicted for the violation of any local or national statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances, may:

(1) Be denied any licence, certificate, rating, qualification, or authorisation issued under these regulations for a period of up to 1 year after the date of final conviction; or

(2) Have the licence, certificate, rating, qualification, or authorisation issued under these regulations suspended or revoked.

(e) A list of chemicals that are considered psychoactive substances is contained in IS 1.2.1.8.

1.3 INVESTIGATIVE AND ENFORCEMENT PROCEDURES

1.3.1 INVESTIGATIVE PROCEDURES

1.3.1.1 REPORTS OF VIOLATIONS

(a) Any person who knows of a violation of the Luchtvaartlandsverordening[1] (the Civil Aviation Act /the Act), as amended, or any regulation or order issued thereunder, shall report it to the Authority.

(b) Each report made under this section, together with any other information the Authority may have that is relevant to the matter reported, will be reviewed by the Authority to determine the nature and type of any additional investigation or enforcement action the Authority will take.

1.3.1.2 INVESTIGATIONS – GENERAL

Under the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, the DCA may conduct investigations; hold hearings; issue poenas; require the production of relevant documents, records, and property; and take evidence and depositions.

1.3.1.3 FORMAL COMPLAINTS

Complaints submitted to the Authority under paragraph 1.3.1.1(a) of this part shall be submitted in a form and manner prescribed by the Authority.

[1] P.B. 2019, no. 4 GT

1.3.2 ADMINISTRATIVE ACTION

(a) If the Authority determines that a violation or an alleged violation of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any regulation or order issued thereunder, is appropriate for administrative action, the Authority may take administrative action by one of the following:

(1) A *Warning Notice*, which recites available facts and information about the incident or condition and indicates that it may have been a violation; or

(2) A *Letter of Correction*, which confirms the Authority's decision in the matter and states the necessary corrective action the alleged violator has taken or has agreed to take. If the agreed corrective action is not fully completed, formal licence or certificate action may be taken in accordance with 1.3.3.3 of this part.

(b) An administrative action under this section does not constitute a formal adjudication of the matter.

1.3.3 LEGAL ENFORCEMENT ACTIONS

Note: Table 2, Sanctions, in IS 1.3.3 contains a sanctions guidance. This guidance conforms to the penalty provisions in Luchtvaartlandsverordening (the Civil Aviation Act), as amended.

1.3.3.1 CIVIL PENALTIES

(a) Any person, other than a person conducting an operation in commercial air transport, who violates any provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any order, rule, directive, or regulation issued thereunder, shall be subject to a civil penalty imposed by the Authority.

(b) Any person conducting an operation in commercial air transport who violates any provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any order, rule, directive, or regulation issued thereunder, shall be subject to a civil penalty imposed by the Authority.

(c) Civil penalties may be assessed instead of or in addition to any licence or certificate action described in 1.3.3.3 of this part.

(d) Civil penalties and licence and certificate actions are prescribed in IS 1.3.3.

1.3.3.2 CRIMINAL PENALTIES

(a) The Luchtvaartlandsverordening (the Civil Aviation Act), as amended, establishes criminal penalties for any person who knowingly and willfully violates specified provisions of that Act or any order, rule, directive, or regulation thereunder.

(b) If the Authority becomes aware of a possible violation of any criminal provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, that is under the jurisdiction of another Curaçao government agency, the Authority will immediately report it to the appropriate Curaçao government agency in a manner prescribed by both government agencies.

(c) Criminal penalties and licence and certificate actions are prescribed in IS 1.3.3.

1.3.3.3 LICENCE AND CERTIFICATE ACTIONS

(a) SUSPENSION OR REVOCATION OF A LICENCE OR CERTIFICATE FOR VIOLATION OF THE LUCHTVAARTLANDSVERORDENING (the CIVIL AVIATION ACT), AS AMENDED, OR ANY REGULATION OR ORDER ISSUED THEREUNDER.

(1) The holder of any licence or certificate issued under these regulations who violates any provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any order, rule, directive, or regulation issued thereunder, is subject to suspension or revocation of that licence or certificate., in accordance with the provisions of . the Civil Aviation Act, as amended, or any regulation issued thereunder.

(2) Any licence or certificate issued under these regulations ceases to be effective if it is surrendered, suspended, or revoked.

(3) The holder of any licence or certificate issued under these regulations whose licence or certificate has been suspended, surrendered, or revoked shall return that licence or certificate to the Authority when requested by the Authority.

(b) REINSPECTION OR REEXAMINATION OF A LICENCE OR CERTIFICATE FOR LACK OF QUALIFICATION.

(1) Under article 14.2 of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, the Authority may reinspect or reexamine any civil aircraft or aeronautical product, air operator, ATO, AMO, or airman holding a licence or certificate issued under the Act as amended, or any order, rule, directive, or regulation issued thereunder.

(2) If, as a result of that reinspection or reexamination or any other investigation made by the Authority, the Authority determines that a lack of qualification exists, and that safety in air transport and the public interest requires it, the Authority may issue an order to amend, modify, suspend, or revoke the licence or certificate in whole or in part.

(3) Procedures for the reexamination of personnel licences or certificates are set forth in CCAR Part 2 of these regulations.

(c) NOTICE AND OPPORTUNITY TO BE HEARD. Unless safety in air transport requires immediate action, prior to a final determination under 1.3.3 of this part, the Authority will provide the person with an opportunity to be heard as to why such licence or certificate should not be amended, modified, suspended, or revoked.

(d) REAPPLICATION AFTER REVOCATION. Unless otherwise authorised by the Authority, a person whose licence or certificate has been revoked shall not apply for any licence or certificate for 1 year after the date of revocation.

(e) REAPPLICATION AFTER SUSPENSION. Unless otherwise authorised by the Authority, a person whose licence or certificate has been suspended shall not apply for any licence or certificate during the period of suspension.

1.3.3.4 SEIZURE OF AIRCRAFT

(a) As provided by the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, an aircraft that is involved in a violation for which a civil penalty has been imposed or may be imposed on its owner or operator may be subject to seizure by the Authority in accordance with enforcement procedures set forth by the Authority.

Note: The seizure of aircraft is typically done only in instances where the violation is particularly egregious (e.g., use of the aircraft in a continuing violation).

1.4 EXEMPTIONS

1.4.1 APPLICABILITY

(a) This subpart prescribes procedures for the application, review, and denial or issuance of exemptions from the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any regulation or order issued thereunder.

1.4.2 GENERAL

(a) Any interested person may apply to the Authority for an exemption from these regulations, if the article of these regulations allows for this.

(b) Only the Authority may issue exemptions, and no person may take or cause to be taken any action not in compliance with these regulations unless the Authority has issued an applicable exemption to that person.

(c) Exemptions will be granted by the Authority only in extraordinary circumstances.

1.4.3 APPLICATION FOR EXEMPTION

(a) Applications for exemptions shall be submitted at least 60 days in advance of the proposed effective date, to obtain timely review.

(b) The application shall contain the applicant's:

(1) Name;

(2) Street address and mailing address, if different;

(3) Telephone number;

(4) Fax number, if available;

(5) Email address, if available; and

(6) Agent for all purposes related to the application.

(c) In addition to paragraph 1.4.3(b) of this subsection, the application shall contain:

(1) A citation of the specific requirement from which the applicant seeks relief. A risk assessment or analysis;

(2) A description of the type of operations to be conducted under the proposed exemption;

(3) The proposed duration of the exemption;

(4) An explanation of how the exemption would be in the public interest, that is, how it would benefit the public as a whole;

(5) A detailed description of the alternative means by which the applicant will ensure a level of safety equivalent to that established by the regulation in question;

(6) A review and discussion of any known safety concerns with the regulation, including information about any relevant accidents or incidents of which the applicant is aware; and

(7) If the applicant seeks to operate under the proposed exemption outside Curaçao airspace, an indication of whether the exemption would contravene any provision of the ICAO SARPs.

(d) If the applicant is not a citizen or legal resident of Curaçao, the application shall specify a Curaçao agent for service.

(e) If the applicant seeks emergency processing, the application shall contain supporting facts and reasons that the application was not timely filed and the reasons it is an emergency. The Authority may deny an application if the Authority finds that the applicant has not justified the failure to apply in a timely fashion.

1.4.4 REVIEW, PUBLICATION, NOTIFICATION, AND EXTENSION OF THE EXEMPTION

1.4.4.1 INITIAL REVIEW BY THE AUTHORITY

(a) The Authority will review the application for accuracy and compliance with the requirements of 1.4.3 of this part.

(b) If the filing requirements of 1.4.3 of this part have not been met, the Authority will notify the applicant and take no further action until the applicant complies with the requirements of that subsection.

(c) If the application appears on its face to satisfy the requirements of 1.4.3 of this part and the Authority determines that a review of its merits is justified, the Authority will publish a detailed summary of the application for comment and will specify the date by which comments shall be received by the Authority for consideration.

1.4.4.2 EVALUATION OF THE REQUEST

(a) After initial review, if the filing requirements have been satisfied, the Authority will conduct a technical evaluation of the request, to include:

(1) A determination of whether an exemption would be in the public interest.

(2) A determination of whether the applicant's proposal would provide a level of safety equivalent to that established by the regulation.

(i) If it appears to the Authority that a technical evaluation of the request would impose a significant burden on the Authority's technical resources, the Authority may deny the exemption on that basis.

(3) A determination, if the applicant seeks to operate under the exemption outside of Curaçao airspace, of whether a grant of the exemption would contravene the provisions of the applicable ICAO SARPs.

(4) An evaluation of comments received from interested parties concerning the proposed exemption.

(5) A recommendation, based on the preceding elements, of whether the request may be granted or denied, and of any conditions or limitations that shall be part of the exemption.

1.4.4.3 NOTIFICATION OF DETERMINATION

(a) The Authority will notify the applicant by formal letter of its decision to grant or not the request for exemption. The decision shall specify the duration of the exemption and any conditions or limitations to the exemption.

(b) If the request is for emergency relief, the Authority will publish the Authority's decision as soon as possible after processing the application.

(c) If the exemption affects a significant population of the aviation community of Curaçao, the Authority will also publish the decision in its AIP.

1.4.4.4 EXTENSION OF THE EXEMPTION TO OTHER INTERESTED PARTIES

(a) If the Authority determines that an exemption may be granted whether or not with limitations or other conditions, as applicable, other persons or organisations may apply to the Authority to be included in the relief granted.

(b) Such applications shall be in accordance with the requirements of 1.4.3 of this part.

(c) If the Authority determines that the request merits extension of the exemption to the applicant, it will notify the applicant by letter, specifying the duration of the exemption and listing any additional conditions that may pertain to the applicant that are not addressed in the underlying exemption.

1.5 DEFINITIONS

Note: All definitions used in these regulations (the CCAR Parts 2 up to 11) have been moved to this subpart for ease of reference. Definitions that are predominantly used in specific parts of these regulations may also be included in those parts. In some instances, definitions in the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, may be different from the definitions used in these regulations. This is because the laws tend to be written more broadly... This part uses ICAO definitions, where available.

(a) For the purpose of these regulations, the following definitions shall apply:

(1) **Accelerate-stop distance available (ASDA).** The length of the take-off run available plus the length of the stopway, if provided.

(2) **Acceptable.** A rule of construction in paragraph 1.1.1.1(a)(7) of this part that means the Authority has reviewed the method, procedure, or policy and has neither objected to nor approved its proposed use or implementation.

(3) **Acceptance checklist.** As relating to the safe transport of dangerous goods, a document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met.

(4) **Accident.** In a safety management context, an occurrence associated with the operation of an aircraft that, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of a UA, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, and in which:

(i) A person is fatally or seriously injured as a result of being in the aircraft; having direct contact with any part of the aircraft, including parts that have become detached from the aircraft; or having direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted, or inflicted by other persons or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew;

(ii) The aircraft sustains damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories); propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, or the aircraft skin (such as small dents or puncture holes); minor damages to main rotor blades, tail rotor blades, or landing gear; and damage resulting from hail or bird strike (including holes in the radome); or

(iii) The aircraft is missing or is completely inaccessible.

Note 1: For statistical uniformity only, an injury resulting in death within 30 days of the date of the accident is classified by ICAO as a fatal injury.

Note 2: An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3: The type of UAS to be investigated is addressed in ICAO Annex 13: 5.1.

Note 4: Guidance for determining aircraft damage can be found in ICAO Annex 13, Attachment E.

(5) **Accountable manager.** The person acceptable to the Authority who has corporate authority for ensuring that all activities can be financed and carried out to the standard required by the Authority and any additional requirements defined by the operator. The accountable manager may delegate in writing to another person within the organisation the day-to-day management, but not the overall approval management responsibility.

(6) **Accredited medical conclusion.** The conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.

(7) **Accredited representative.** As relating to an aircraft accident, a person designated by a State, on the basis of the person's qualifications, for the purpose of participating in an investigation conducted by another party.

(8) **Acrobatic flight.** Manoeuvres intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude, or an abnormal variation in speed.

(9) **Acts of unlawful interference.** Acts or attempted acts such as to jeopardise the safety of civil aviation and air transport, including:

(i) Unlawful seizure of aircraft;

(ii) Destruction of an aircraft in service;

(iii) Hostage-taking on board aircraft or at aerodromes;

(iv) Forcible intrusion on board an aircraft, at an aerodrome, or on the premises of an aeronautical facility;

(v) Introduction on board an aircraft or at an aerodrome of a weapon or hazardous device or material intended for criminal purposes;

(vi) Use of an aircraft in service for the purpose of causing death, serious bodily injury, or serious damage to property or the environment; and

(vii) Communication of false information such as to jeopardise the safety of an aircraft in flight or on the ground, or of passengers, crew, ground personnel, or the general public, at an aerodrome or on the premises of a civil aviation facility.

(10) **Adapted competency model.** A group of competencies with their associated descriptions and performance criteria adapted from an ICAO competency framework that an organisation uses to develop competency-based training and assessment for a given role.

(11) **Advanced aircraft.** An aircraft with equipment in addition to that required for a basic aircraft for a given take-off, approach, or landing operation.

(12) **Advisor.** As relating to an aircraft accident, a person appointed by a State, on the basis of the person's qualifications, for the purpose of assisting its accredited representative in an investigation.

(13) **Advisory airspace.** An airspace of defined dimensions, or a designated route, within which air traffic advisory service is available.

(14) **Advisory route.** A designated route along which air traffic advisory service is available.

(15) **Aerial work.** An aircraft operation in which an aircraft is used for specialised services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.

(16) **Aerodrome.** A defined area on land or water (including any buildings, installations, and equipment) intended to be used either wholly or in part for the arrival, departure, and surface movement of aircraft.

(17) **Aerodrome control service.** ATC service for aerodrome traffic.

(18) **Aerodrome control tower.** A unit established to provide ATC service to aerodrome traffic.

(19) **Aerodrome flight information service (AFIS).** A directed traffic information and operational information service provided within an aerodrome flight information zone to all radio equipped aircraft, to assist in the safe and efficient conduct of flight.

(20) **Aerodrome operating minima.** The limits of usability of an aerodrome for:

(i) Take-off, expressed in terms of RVR and/or visibility and, if necessary, cloud conditions;

(ii) Landing in 2D instrument approach operations, expressed in terms of visibility and/or RVR, MDA/H, and if necessary, cloud conditions; and

(iii) Landing in 3D instrument approach operations, expressed in terms of visibility and/or RVR and DA/H, as appropriate to the type and/or category of operation.

(21) **Aerodrome traffic.** All traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.

Note: An aircraft is in the vicinity of an aerodrome when it is in, entering, or leaving an aerodrome traffic circuit.

(22) **Aerodrome traffic zone (ATZ).** An airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.

(23) **Aeronautical experience.** Pilot time obtained in an aircraft or approved FSTD for meeting the training and flight time requirements of these regulations.

(24) **Aeronautical Information Publication (AIP).** A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

(25) **Aeronautical product.** Any aircraft, aircraft engine, or aircraft propeller, or a part to be installed thereon.

(26) **Aeronautical station.** A land station in the aeronautical mobile service. In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea.

(27) **Aeroplane.** A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces that remain fixed under given conditions of flight.

(28) **Aeroplane system.** Includes all elements of equipment necessary for the control and performance of a particular major function. It includes both the equipment specifically provided for the function in question and other basic related aeroplane equipment, such as that required to supply power for the equipment operation. The engine is not considered to be an aeroplane system.

(29) **Agreement summary.** When an aircraft is operating under an Article 83 *bis* agreement between the State of Registry and another State, the agreement summary is a document transmitted with the Article 83 *bis* agreement registered with the ICAO Council that identifies succinctly and clearly which functions and duties are transferred by the State of Registry to that other State.

Note: The other State in the above definition refers to either the State of the Operator for commercial air transport operations or, for general aviation operations, to the State of the principal location of a general aviation operator.

(30) **Agricultural aircraft operation.** The operation of an aircraft for the purpose of:

(i) Dispensing any economic poison;

(ii) Dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life, or pest control; or

(iii) Engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects.

(31) **Aided night flight.** For a flight in which a pilot uses night vision goggles, the portion of the flight in which the pilot uses night vision goggles to maintain visual surface reference.

(32) **Airborne collision avoidance system (ACAS).** An aircraft system based on SSR transponder signals that operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

(33) **Airborne image recorder (AIR).** A device that uses a combination of cameras to collect and record information that reflects the status of various parts of the aircraft (internal and external). Source: Current edition of EUROCAE ED-112A, *Minimum Operational Performance Specification for Crash Protected Airborne Recorder Systems*, paragraph 1-1.5.1.

Note: The FAA defines AIR as equipment intended to record aircraft flight images and store the data in crash-protected memory to assist in accident or incident investigations. Source: Current edition of FAA TSO-C176, Aircraft Cockpit Image Recorder Systems*, paragraph 3(a).*

(34) **Aircraft.** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. The term "aircraft," when used in the Luchtvaartlandsverordening (Civil Aviation Act) (the Act) or in these regulations, shall apply only to civil aircraft and not to State or public aircraft.

Note 1: Classification of aircraft is prescribed in IS 4.2.1.6.

Note 2: As of 26 November 2026, when the word "aircraft" is used, it includes the remotely piloted aircraft.

(35) **Aircraft avionics.** A term designating any electronic device, including its electrical part, for use in an aircraft, including radio, automatic flight control, and instrument systems.

(36) **Aircraft – category.** Classification of aircraft according to specified basic characteristics (e.g., aeroplane, helicopter, glider, free balloon, airship, powered-lift).

(37) **Aircraft certificated for multi-pilot operation.** A type of aircraft that the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of two pilots.

(38) **Aircraft certificated for single-pilot operation.** A type of aircraft that the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of one pilot.

(39) **Aircraft component.** Any component part of an aircraft up to and including a complete powerplant and/or any operational/emergency equipment.

(40) **Aircraft data recording system (ADRS).** A device or devices that use a combination of data providers to collect and record parameters that reflect the state and performance of an aircraft. Source: Current edition of EUROCAE ED-155, *Minimum Operational Performance Specification for Lightweight Flight Recording Systems*, paragraph 1-1.5.1.

(41) **Aircraft engine.** Any engine used, or intended to be used, for propulsion of aircraft, including all parts, appurtenances, and accessories thereof other than propellers.

(42) **Aircraft Flight Manual (AFM).** A manual, associated with the certificate of airworthiness, containing the limitations within which the aeroplane is to be considered airworthy and the instructions and information necessary to the flight crew members for the safe operation of the aeroplane.

(43) **Aircraft Operating Manual (AOM).** A manual, acceptable to the State of the Operator, containing normal, abnormal, and emergency procedures; checklists; limitations; performance information; details of the aircraft systems; and other material relevant to the operation of the aircraft.

Note: The AOM is part of the operator's OM.

(44) **Aircraft piracy.** Any actual or attempted seizure or exercise of control, by force or violence or by any other form of intimidation, with wrongful intent, of an aircraft within the jurisdiction of Curaçao.

(45) **Aircraft required to be operated with a CP.** A type of aircraft that is required to be operated with a CP, as specified in the flight manual or by the AOC.

(46) **Aircraft security check.** An inspection of the interior of an aircraft to which passengers may have had access and an inspection of the hold for the purpose of discovering suspicious objects, weapons, explosives, or other dangerous devices, articles, or substances.

(47) **Aircraft security search.** A thorough inspection of the interior and exterior of an aircraft for the purpose of discovering suspicious objects, weapons, explosives, or other dangerous devices, articles, or substances.

(48) **Aircraft technical log.** A document that is carried on an aircraft and contains information to meet ICAO Standards; it contains two independent sections: a journey records section and an aircraft continuing airworthiness records section.

(49) **Aircraft tracking.** A process established by the operator that maintains and updates, at standardised intervals, a ground-based record of the four-dimensional position of individual aircraft in flight.

(50) **Aircraft – type of.** All aircraft of the same basic design, including all modifications thereto except those modifications that result in a change in handling or flight characteristics.

(51) **Airframe.** The fuselage, booms, nacelles, cowlings, fairings, aerofoil surfaces (including rotors but excluding propellers and rotating aerofoils of a powerplant), and landing gear of an aircraft and their accessories and controls.

(52) **Air-ground control radio station.** An aeronautical telecommunication station having primary responsibility for handling communications pertaining to the operation and control of aircraft in a given area.

(53) **Airman.** Refers to:

(i) Any individual who engages, as the person in command or as a pilot, mechanic, or member of the crew, or navigates an aircraft while the aircraft is underway;

(ii) Any individual in charge of the inspection, maintenance, overhaul, or repair of aircraft and any individual in charge of the inspection, maintenance, overhaul, or repair of aircraft engines, propellers, or appliances; or

(iii) Any individual who serves in the capacity of flight operations officer.

(54) **Airmanship.** The consistent use of good judgement and well-developed knowledge, skills, and attitudes to accomplish flight objectives.

(55) **Air navigation facility.** Any facility used in, available for use in, or designed for use in the aid of air navigation, including aerodromes, landing areas, and lights; any apparatus or equipment for disseminating weather information, signalling, radio directional finding, or radio or other electrical communication; and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing and take-off of aircraft.

(56) **Air operator.** Any organisation that undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement.

(57) **Air operator certificate (AOC).** A certificate authorising an operator to carry out specified commercial air transport operations.

(58) **Air operator security programme.** Each Contracting State shall establish and implement a written national civil aviation security programme to safeguard civil aviation operations against acts of unlawful interference, through regulations, practices, and procedures that take into account the safety, regularity, and efficiency of flights.

(59) **Airship.** A power-driven lighter-than-air aircraft.

(60) **Airside.** The movement area of an aerodrome and adjacent terrain and buildings, or portions thereof, access to which is controlled.

(61) **Air-taxiing.** Movement of a helicopter/vertical take-off and landing above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt).

Note: The actual height may vary, and some helicopters may require air-taxiing 8 m (25 ft) above ground level to reduce ground-effect turbulence or provide clearance for cargo slingloads.

(62) **Air traffic.** All aircraft in flight or operating on the manoeuvring area of an aerodrome.

(63) **Air traffic advisory service.** A service provided within advisory airspace to ensure separation, insofar as practical, between aircraft that are operating on IFR flight plans.

(64) **Air traffic control (ATC) clearance.** Authorisation for an aircraft to proceed under conditions specified by an ATC unit.

Note 1: For convenience, the term "ATC clearance" is frequently abbreviated to "clearance" when used in appropriate contexts.

Note 2: The abbreviated term "clearance" may be prefixed by the words "taxi," "take-off," "departure," "en route," "approach," or "landing" to indicate the particular portion of flight to which the ATC clearance relates.

(65) **Air traffic control (ATC) facility.** A building holding the persons and equipment responsible for providing ATC services (e.g., aerodrome tower, approach control, centre). May also be called an ATC unit.

(66) **Air traffic control (ATC) service.** A service provided within advisory airspace that promotes the safe, orderly, and expeditious flow and separation of air traffic at aerodromes and during the approach, departure, and en route environments including aircraft that are operating on IFR flight plans. May also be called air traffic advisory service or ATS.

(67) **Air traffic service (ATS).** A generic term meaning variously, flight information service, alerting service, air traffic advisory service, ATC service (area control service, approach control service, or aerodrome control service.) See also air traffic control (ATC) service.

(68) **Air traffic service (ATS) airspaces.** Airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which ATSs and rules of operation are specified.

Note: ATS airspaces are classified as Class A to G.

(69) **Air traffic service (ATS) or air traffic control (ATC) route.** A specified route designed for channelling the flow of air traffic as necessary for the provision of ATSs, defined by route specifications that include an ATS or ATC route designator, the track to or from significant points (way points), the distance between significant points, the reporting requirements, and as determined by the appropriate ATS or ATC authority, the lowest safe altitude.

Note: ATS or ATC route is used to mean variously: airway, advisory route, controlled or uncontrolled route, or arrival or departure route.

(70) **Air traffic service (ATS) reporting office.** A unit established for the purpose of receiving reports concerning ATS and flight plans submitted before departure.

Note: An ATS reporting office may be established as a separate unit or combined with an existing unit, such as another ATS unit, or a unit of the aeronautical information service.

(71) **Air traffic service (ATS) surveillance service.** Indicates a service provided directly by means of an ATS surveillance system.

(72) **Air traffic service (ATS) surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR, or any comparable ground-based system that enables the identification of aircraft.

Note: A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.

(73) **Air traffic service (ATS) unit.** A generic term meaning variously, ATC unit, flight information centre, or ATS reporting office.

(74) **Airway.** A control area or portion thereof established in the form of a corridor.

(75) **Airworthiness approval tag (AAT).** A tag that shall be attached to a part. The tag shall include the part number, serial number, and current life status of the part. Each time the part is removed from a type-certificated product, a new tag shall be created or the existing tag shall be updated with the current life status. The AAT has two distinct purposes: (1) as an approval for return to service of an aeronautical product or assembly after maintenance, overhaul, modification, repair, or inspection; and (2) for shipping of a newly manufactured part.

(76) **Airworthiness data.** Any information necessary to ensure that an aircraft or aircraft component can be maintained in a condition such that airworthiness of the aircraft or serviceability of operational and emergency equipment, as appropriate, is assured.

(77) **Airworthiness Directive (AD).** Continuing airworthiness information that applies to the following products: aircraft, aircraft engines, propellers, and appliances. An AD is mandatory if issued by the State of Design.

(78) **Airworthiness release.** The air operator's aircraft are released for service following maintenance by a person specifically authorised by the air operator rather than by an individual or maintenance organisation on the air operator's behalf.

Note: Regarding the airworthiness release, in effect, the person signing the release acts in the capacity of an authorised agent for the operator and is certifying that the maintenance covered by the release was accomplished according to the air operator's continuing airworthiness maintenance programme. Normally, a release is required following inspections prescribed by the air operator's operations specifications, maintenance activities involving inspections, and any other significant maintenance. A copy of the airworthiness release must be given to the PIC before the aircraft commences operations. The air operator is obligated to designate, by name or occupational title, each licensed AMT or maintenance organisation authorised to execute the airworthiness release. In addition, the air operator shall designate when an airworthiness release is required.

(79) **Airworthy.** Until 25 November 2026, the status of an aircraft, engine, propeller, or part when it conforms to its approved design and is in a condition for safe operation.

(80) **Airworthy.** As of 26 November 2026, the status of an aircraft, RPS, engine, propeller, or part when it conforms to its approved design and is in a condition for safe operation.

(81) **Alerting service.** A service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid and to assist such organisations as required.

(82) **Alternate aerodrome.** An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or land at the aerodrome of intended landing and where the necessary services and facilities are available, where aircraft performance requirements can be met, and which is operational at the expected time of use. Alternate aerodromes include the following:

(i) **Take-off alternate.** An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and if it is not possible to use the aerodrome of departure.

(ii) **En route alternate.** An alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.

(iii) **Destination alternate.** An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.

Note: The aerodrome from which a flight departs may also be an en route or a destination alternate aerodrome for that flight.

(83) **Alternative means of compliance.** An approved alternative to prescribed approaches, which has been demonstrated to consistently achieve or exceed the desired outcomes as intended through regulation.

Note: An example of an alternative means of compliance would be the Authority's approval of reduced flight time from 40 hours to 35 hours for a PPL(A) when training is conducted in an ATO.

(84) **Altimetry system error (ASE).** The difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure.

(85) **Altitude.** The vertical distance of a level, a point, or an object considered as a point, measured from MSL.

(86) **Annexes to the Chicago Convention.** The documents issued by ICAO containing the SARPs applicable to civil aviation.

(87) **Anticipated operating conditions.** Until 25 November 2026, those conditions that are envisaged to occur during the operation life of the aircraft, taking into account the operations for which the aircraft is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, the configuration of terrain, the functioning of the aircraft, the efficiency of personnel, and all the factors affecting safety in flight. Anticipated operating conditions do not include:

(i) Those extremes that can be effectively avoided by means of operating procedures; and

(ii) Those extremes that occur so infrequently that to require the standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical.

(88) **Anticipated operating conditions.** As of 26 November 2026, those conditions that are envisaged to occur during the operation life of the aircraft and the RPS, taking into account the operations for which the aircraft or RPS is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, the configuration of terrain, the functioning of the aircraft and RPS, the efficiency of personnel, and all the factors affecting safety in flight. Anticipated operating conditions do not include:

(i) Those extremes that can be effectively avoided by means of operating procedures; and

(ii) Those extremes that occur so infrequently that to require the standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical.

(89) **Appliances.** Instruments, equipment, apparatus, parts, appurtenances, or accessories, of whatever description, that are used, or are capable of being or intended to be used, in the navigation, operation, or control of aircraft in flight (including parachutes, communication equipment, and any other mechanism or mechanisms installed in or attached to aircraft during flight) and that are not part or parts of aircraft, aircraft engines, or propellers.

(90) **Approach and landing phase – helicopters.** That part of the flight from 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or from the commencement of the descent in the other cases, to landing or to the balked landing point.

(91) **Approach control service.** ATC service for arriving or departing controlled flights.

(92) **Approach control unit.** A unit established to provide ATC service to controlled flights arriving at, or departing from, one or more aerodromes.

(93) **Approach procedure with vertical guidance (APV).** A PBN IAP designed for 3D instrument approach operations Type A.

(94) **Appropriate air traffic service (ATS) or air traffic control (ATC) authority.** The relevant authority designated by the State responsible for providing ATS or ATC in the airspace concerned.

(95) **Appropriate airworthiness requirements.** Until 25 November 2026, the comprehensive and detailed airworthiness codes established, adopted, or accepted by a Contracting State for the class of aircraft, engine, or propeller under consideration.

(96) **Appropriate airworthiness requirements.** As of 26 November 2026, the comprehensive and detailed airworthiness codes established, adopted, or accepted by a Contracting State for the class of aircraft, RPS, engine, or propeller under consideration.

(97) **Appropriate authority.**

(i) Regarding flight over the high seas: The relevant authority of the State of Registry.

(ii) Regarding flight other than over the high seas: The relevant authority of the State having sovereignty over the territory being overflown.

(98) **Approval.** As relating to dangerous goods in Parts 8 and 9 of these regulations, a provision in ICAO Annex 18 states that an approval is an authorisation granted by an appropriate national authority for:

(i) The transport of dangerous goods forbidden on passenger and/or cargo aircraft where the Technical Instructions state that such goods may be carried with an approval; or

(ii) Other purposes as provided for in the Technical Instructions.

Note 1: In the absence of a specific reference in the Technical Instructions allowing the granting of an approval, an exemption may be sought.

Note 2: See definition below for Technical Instructions.

(99) **Approval for return to service.** A document that contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the AMO Procedures Manual or under an equivalent system.

(100) **Approved.** Accepted by a Contracting State as suitable for a particular purpose.

Note: Relating to approvals as used in these regulations, the term "approved" is a rule of construction in paragraph 1.1.1.1(a)(6) of this part that means the Authority has reviewed the method, procedure, or policy in question and has issued a formal written approval.

(101) **Approved by the Authority.** Approved by the Authority directly or in accordance with a procedure approved by the Authority.

(102) **Approved curriculum.** A set of special training courses in an area of specialisation offered by an ATO and approved by the Authority.

(103) **Approved data.** Technical information approved by the Authority.

(104) **Approved maintenance organisation (AMO).** An organisation approved by the Authority, in accordance with Part 6 of these regulations, to perform maintenance, overhaul, modification, repair, or inspection on an aircraft, aeronautical product, or, as of 26 November 2026, an RPS, and operating under supervision approved by the Authority.

(105) **Approved standard.** A manufacturing, design, maintenance, or quality standard approved by the Authority.

(106) **Approved training.** Training carried out under special curricula and supervision approved by the Authority.

(107) **Approved training organisation (ATO).** An organisation approved by the Authority, in accordance with Part 3 of these regulations, to perform flight crew training, mechanic training, and other training approved by the Authority.

(108) **Approved Training Organisation (ATO) Procedures Manual.** A manual containing procedures, instructions, and guidance for use by personnel of an ATO in the execution of their duties in meeting the requirements of the certificate. It may be a combined manual or may be separated into a Training Manual and a Procedures Manual.

(i) **Training manual.** A manual containing the training goals, objectives, standards, syllabi, and curriculum for each phase of the approved training course.

(ii) **Procedures manual.** A manual containing procedures, instructions, and guidance for use by personnel of the ATO in the execution of their duties in meeting the requirements of the certificate.

(109) **Area control centre.** A unit established to provide ATC service to controlled flights in control areas under its jurisdiction.

(110) **Area control service.** ATC service for controlled flights in control areas.

(111) **Area navigation (RNAV).** A method of navigation that permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

Note: Area navigation includes PBN as well as other operations that do not meet the definition of PBN.

(112) **Authorised instructor.** A person who:

(i) Holds a valid ground instructor certificate issued under Part 2 of these regulations when conducting ground training;

(ii) Holds a current flight instructor certificate issued under Part 2 of these regulations when conducting ground training or flight training; or

(iii) Is authorised by the Authority to provide ground training or flight training under Parts 2 and 3 of these regulations.

(113) **Authority.** The CCAA responsible for the oversight of civil aviation in Curaçao.

(114) **Automatic dependent surveillance (ADS).** A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position, and additional data as appropriate.

(115) **Automatic dependent surveillance (ADS) agreement.** An ADS reporting plan that establishes the conditions of ADS data reporting (i.e., data required by the ATS or control unit and frequency of ADS reports that shall be agreed to prior to the provision of the ADS services).

(116) **Automatic dependent surveillance – broadcast (ADS-B).** A means by which aircraft, aerodrome vehicles, and other objects can automatically transmit and/or receive data such as identification, position, and additional data, as appropriate, in a broadcast mode via a data link.

(117) **Automatic dependent surveillance – contract (ADS-C).** A means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated and what data would be contained in the reports.

Note: The abbreviated term "ADS contract" is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract, or an emergency mode.

(118) **Automatic dependent surveillance – contract (ADS-C) agreement.** A reporting plan that establishes the conditions of ADS-C data reporting (i.e. data required by the ATS unit and frequency of ADS-C reports that shall be agreed to prior to using ADS-C in the provision of ATS).

Note: The terms of the agreement will be exchanged between the ground system and the aircraft by means of a contract or a series of contracts.

(119) **Automatic deployable flight recorder (ADFR).** A combination flight recorder that is installed on the aircraft and is capable of automatically deploying from the aircraft.

Note: This could include the cockpit voice recorder or flight data recorder.

(120) **Aviation medical assessor.** A physician, appointed by the Licensing Authority, who is qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance.

(121) **Aviation medical examiner.** A physician with training in aviation medicine and practical knowledge and experience of the aviation environment who is designated by the Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed.

(122) **Aviation security.** The safeguarding civil aviation against acts of unlawful interference. This objective is achieved by a combination of measures and human and material resources.

(123) **Balloon.** A non-power-driven lighter-than-air aircraft.

(124) **Banner.** An advertising medium supported by a temporary framework attached externally to the aircraft and towed behind the aircraft.

(125) **Basic aircraft.** An aircraft which has the minimum equipment required to perform the intended take-off, approach, or landing operation.

(126) **Behaviour detection**. Within an aviation security environment, the application of techniques involving the recognition of behavioural characteristics, including physiological or gestural signs indicative of anomalous behaviour, to identify persons who may pose a threat to civil aviation.

(127) **Cabin crew member.** A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the PIC of the aircraft, but who shall not act as a flight crew member.

Note: Cabin crew may or may not be licensed by the Authority.

(128) **Calendar day.** The period of elapsed time, using coordinated universal time or local time, that begins at midnight and ends 24 hours later at the next midnight.

(129) **Calendar month.** A period of a month beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered month (as 1 January through 31 January in the Gregorian calendar).

(130) **Calendar year.** A period of a year beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as 1 January through 31 December in the Gregorian calendar).

(131) **Calibration.** A set of operations, performed in accordance with a definite documented procedure that compares the measurement performed by a measurement device or working standard with a recognised bureau of standards for the purpose of detecting and reporting or eliminating adjustment errors in the measurement device, working standard, or aeronautical product tested.

(132) **Cargo.** Any property carried on an aircraft other than mail, stores, and accompanied or mishandled baggage.

(133) **Cargo aircraft.** Any aircraft carrying goods or property but not passengers. In this context, the following are not considered to be passengers:

(i) A crew member

(ii) An operator's employee permitted by, and carried in accordance with, the instructions contained in the OM

(iii) An authorised representative of an Authority

(iv) A person with duties with respect to a particular shipment on board

(134) **Causes.** As relating to an aircraft accident or incident, the actions, omissions, events, or conditions, or a combination thereof, that led to the accident or incident.

(135) **Ceiling.** The height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky.

(136) **Certificate of airworthiness.** A certificate issued by the State of Registry when an aircraft has been deemed fit and safe for flight and in conformity with the type design approved by the State of Design and maintained in accordance with the continuing airworthiness requirements of the State of Registry.

Note: The definition of certificate of airworthiness was developed by using primarily the definition from Transport Canada with additional ICAO material.

(137) **Certify as airworthy.** The act of completing an approval for return to service, by a properly authorised person after the maintenance, overhaul, modification, repair, or inspection of an aircraft or aeronautical product, by which the aircraft or aeronautical part is cleared for use in flight as meeting the requirements of the certificate of airworthiness of Curaçao.

(138) **Certifying staff.** Those personnel who are authorised by the AMO in accordance with a procedure acceptable to the Authority to approve aircraft or aeronautical products for return to service.

(139) **Changeover point.** The point at which an aircraft navigating on an ATC or ATS route segment defined by reference to very high frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.

Note: Changeover points are established to provide the optimum balance with respect to signal strength and quality between facilities at all levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.

(140) **Check person.** A qualified person who is authorised by the Authority to conduct an evaluation of either an AOC holder's flight crew (pilots, flight engineers, or flight navigators), cabin crew, or flight operations officer. Terms that may be used to describe this person, depending upon responsibilities, are check pilot, check flight engineer, check flight navigator, check cabin crew member, and check flight operations officer. Check persons for flight crew may be further authorised to perform checks in either an aircraft or simulator, as defined below.

(i) **Check person (aircraft).** A person who is qualified, and authorised by the Authority, to conduct a flight crew evaluation in an aircraft or in an FSTD for a particular type aircraft, for a particular AOC holder.

(ii) **Check person (simulator).** A person who is qualified, and authorised by the Authority, to conduct a flight crew evaluation, but only in an FSTD for a particular type aircraft, for a particular AOC holder.

(141) **Citizen of Curaçao.** Refers to one of the following:

(i) An individual who is a citizen of Curaçao;

(ii) A partnership of which each member is a citizen of Curaçao; or

(iii) A corporation or association created or organised and authorised under the laws of Curaçao.

(142) **Civil aircraft.** Any aircraft other than a State or public aircraft.

(143) **Civil aviation.** The operation of any civil aircraft for the purpose of general aviation operations, aerial work, or commercial air transport operations.

(144) **Clearance limit.** The point to which an aircraft is granted an ATC clearance.

(145) **Cockpit audio recording system (CARS).** A device that uses a combination of microphones and other audio and digital inputs to collect and record the aural environment of the flight deck and communications to, from, and between the pilots. Source: Current edition of EUROCAE ED-155, *Minimum Operational Performance Specification for Lightweight Flight Recording Systems*, paragraph 1-1.5.1.

(146) **Combined vision system (CVS).** A system to display images from a combination of an EVS and an SVS.

(147) **Command and control link (C2 Link).** As of 26 November 2026, the data link between the RPA and the RPS for the purposes of managing the flight.

(148) **Command and control link (C2 Link) communication service provider (C2CSP).** An entity which provides a portion of, or al of, the C2 Link service for the operation of an RPAS.

(149) **Command and control link (C2 Link) interruption.** As of 26 November 2026, any temporary situation where the C2 Link is unavailable or discontinuous, introduces too much delay, or has inadequate integrity; but where the lost C2 Link decision time has not been exceeded.

(150) **Command and control link (C2 Link) specification.** As of 26 November 2026, the minimum performance to be achieved by the C2 Link equipment in conformity with the applicable airworthiness system design requirements.

(151) **Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo, or mail for remuneration or hire.

(152) **Common mark.** A mark assigned by ICAO to the common mark registering authority registering aircraft of an international operating agency on other than a national basis.

Note: All aircraft of an international operating agency that are registered on other than a national basis will bear the same common mark.

(153) **Common mark registering authority.** The authority maintaining the non-national register or, where appropriate, the part thereof, in which aircraft of an international operating agency are registered.

(154) **Company materials (COMAT).** Operator material carried on an operator's aircraft for the operator's own purposes.

(155) **Competency.** A dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviours that mobilise the relevant knowledge, skills, and attitudes to carry out activities or tasks under specified conditions.

(156) **Competency-based training and assessment.** Training and assessment that are characterised by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.

Note: This training process is derived from a job and task analysis and focuses on the achievement of well-defined, benchmarked standards of performance as opposed to training programmes that simply focus on the acquisition of prescribed levels of experience.

(157) **Competency standard**. A level of performance that is defined as acceptable when assessing whether or not competency has been achieved.

(158) **Complex aeroplane.** An aeroplane that has retractable landing gear, flaps, and a controllable-pitch propeller or, in the case of a seaplane, flaps and a controllable-pitch propeller.

(159) **Composite.** Structural materials made of substances, including wood, metal, ceramic, plastic, fiber-reinforced materials, graphite, boron, or epoxy, with built-in strengthening agents that may be in the form of filaments, foils, powders, or flakes of a different material.

(160) **Computer system.** Any electronic or automated system capable of receiving, storing, and processing external data and transmitting and presenting such data in a usable form for the accomplishment of a specific function.

(161) **Conditions**. Anything that may qualify a specific environment in which performance will be demonstrated.

(162) **Configuration (as applied to the aeroplane).** A particular combination of the positions of the moveable elements, such as wing flaps and landing gear, etc., that affects the aerodynamic characteristics of the aeroplane.

(163) **Configuration deviation list (CDL).** A list, established by the organisation responsible for the type design with the approval of the State of Design, that identifies any external parts of an aircraft type that may be missing at the commencement of a flight and that contains, where necessary, any information on associated operating limitations and performance correction.

(164) **Congested area.** A city, town, or settlement or an open-air assembly of people.

(165) **Congested hostile environment.** A hostile environment within a congested area.

(166) **Consignment.** One or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot, and moving to one consignee at one destination address.

(167) **Contaminated runway.** A runway is contaminated when a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed in the runway surface condition descriptors.

(168) **Continuing airworthiness.** Until 25 November 2026, the set of processes by which an aircraft or aeronautical product complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

(169) **Continuing airworthiness.** As of 26 November 2026, the set of processes by which an aircraft, RPS, or aeronautical product complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

(170) **Continuing airworthiness maintenance programme.** A maintenance programme approved by the State of Registry.

(171) **Continuing airworthiness records.** Records that are related to the continuing airworthiness status of an aircraft or aeronautical product.

(172) **Continuous descent final approach (CDFA).** A technique, consistent with stabilised approach procedures, for flying the FAS of an instrument NPA procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre begins for the type of aircraft flown; for the FAS of an NPA procedure followed by a circling approach, the CDFA technique applies until circling approach minima (circling OCA/H) or visual flight manoeuvre altitude/height are reached.

(173) **Contracting State.** A State that is a signatory to the Convention on International Civil Aviation (Chicago Convention).

(174) **Control area.** A controlled airspace extending upward from a specified limit above the earth.

(175) **Control zone.** A controlled airspace extending upward from the surface of the earth to a specified upper limit.

(176) **Controlled aerodrome.** An aerodrome at which ATC service is provided to aerodrome traffic.

(177) **Controlled airspace.** An airspace of defined dimensions within which ATC service is provided in accordance with the airspace classification.

Note: Controlled airspace is a generic term that covers ATC or ATS airspace Classes A, B, C, D, and E as described in ICAO Annex 11: 2.6.

(178) **Controlled flight.** Any flight that is subject to an ATC clearance.

(179) **Controlled flight into terrain (CFIT).** Occurs when an airworthy aircraft is flown, under the control of a qualified pilot, into terrain, water, or an obstacle with inadequate awareness on the part of the pilot of the impending collision.

(180) **Controller-pilot data link communications (CPDLC).** A means of communication between controller and pilot, using data link for ATC communications.

(181) **Convention on International Civil Aviation (Chicago Convention).** The Convention on International Civil Aviation concluded in Chicago, Illinois, of the United States of America, in 1944, in effect, 1947. The Articles of the Chicago Convention govern the actions of the Contracting States in matters of international civil aviation safety directly and through the Annexes to the Chicago Convention, which set forth the ICAO SARPs.

(182) **Conversion.** Conversion is the action taken by Curaçao in issuing its own licence on the basis of a licence issued by another Contracting State for use on aircraft registered in Curaçao.

(183) **Co-pilot (CP).** A licensed pilot serving in any piloting capacity other than as PIC but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

(184) **Corporate aviation.** The non-commercial operation or use of aircraft by a company for the carriage of passengers or goods as an aid to the conduct of company business, flown by (a) professional pilot(s) employed to fly the aircraft.

(185) **Course.** A programme of instruction to teach knowledge, skills, and/or competencies in a particular area or subject or to maintain existing qualifications.

(186) **Courseware.** Instructional material developed for each course or curriculum, including lesson plans and other aids such as computer software programs, audiovisual programmes, workbooks, and handouts.

(187) **Credit.** Recognition of alternative means or prior qualifications.

(188) **Crew member.** A person assigned by an operator to duty on an aircraft during a flight duty period.

(189) **Crew resource management.** A programme designed to improve the safety of flight operations by optimising the safe, efficient, and effective use of human resources, hardware, and information through improved crew communication and coordination.

(190) **Critical engine.** The engine whose failure would most adversely affect the performance or handling qualities of an aircraft.

(191) **Critical phases of flight.** Those portions of operations involving taxiing, take-off and landing, and all flight operations below 3 050 m (10 000 ft) except cruise flight.

(192) **Critical power unit(s).** A power unit, the failure of which has the most adverse effect on the aircraft characteristics relative to the case under consideration.

Note: On some aircraft there may be more than one equally critical power unit. In that case, the phrase "the critical power unit" means one of those critical power units.

(193) **Cross-country.** A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.

(194) **Cross-country time.** That time a pilot spends in flight in an aircraft, which includes a landing at a point other than the point of departure and, for the purpose of meeting the cross-country time requirements for a PPL (except with a rotorcraft rating), a CPL, or an instrument rating, includes a landing at an aerodrome that shall be a straight-line distance of more than 50 NM from the original point of departure.

(195) **Cruise climb.** An aeroplane cruising technique resulting in a net increase in altitude as the aeroplane mass decreases.

(196) **Cruise relief pilot.** A flight crew member who is assigned to perform pilot tasks during cruise flight to allow the PIC or CP to obtain planned rest.

(197) **Cruising level.** A level maintained during a significant portion of a flight.

(198) **Current flight plan.** The flight plan, including changes, if any, brought about by subsequent clearances.

(199) **Curriculum.** A set of courses in an area of specialisation offered as part of a training programme.

(200) **Danger area.** An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

(201) **Dangerous goods.** Articles or substances that are capable of posing a risk to health, safety, property, or the environment and are shown in the list of dangerous goods in the Technical Instructions or are classified according to those instructions.

Note 1: See definition below for Technical Instructions.

Note 2: Dangerous goods are classified in Chapter 3 of ICAO Annex 18, The Safe Transport of Dangerous Goods by Air.

(202) **Dangerous goods accident.** An occurrence associated with and related to the transport of dangerous goods by air that results in fatal or serious injury to a person or major property or environmental damage.

Note: See definition below for Technical Instructions.

(203) **Dangerous goods incident.** An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, that results in injury to a person, property or environmental damage, fire, breakage, spillage, leakage of fluid or radiation, or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods that seriously jeopardises the aircraft or its occupants is also deemed to constitute a dangerous goods incident.

Note: See definition below for Technical Instructions.

(204) **Dangerous goods transport document.** A document specified by Technical Instructions. It is completed by the person who offers dangerous goods for air transport and contains information about those dangerous goods. The document bears a signed declaration indicating that the dangerous goods are fully and accurately described by their proper shipping names and UN numbers (if assigned) and that they are correctly classified, packed, marked, labelled, and in a proper condition for transport.

Note: See definition below for Technical Instructions.

(205) **Data link communications.** A form of communication intended for the exchange of messages via a data link.

(206) **Data link recording system.** A device, controlled directly or indirectly, that records the messages through which the flight path of an aircraft is authorised and that relays those messages over a digital data link rather than by voice communication. Source: Current edition of EUROCAE ED-155, *Minimum Operational Performance Specification for Lightweight Flight Recording Systems*, paragraph 1-1.5.1.

(207) **Deadhead transportation.** Time spent in transportation on aircraft (at the insistence of the AOC holder) to or from a crew member's home station.

(208) **Decision altitude (DA) or decision height (DH).** A specified altitude or height in a 3D instrument approach operation at which a missed approach shall be initiated if the required visual reference to continue the approach has not been established.

Note 1: DA is referenced to MSL and DH is referenced to the threshold elevation.

Note 2: The required visual reference means that section of the visual aids or of the approach area that should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position in relation to the desired flight path. In CAT III operations with a DH, the required visual reference is that specified for the particular procedure and operation.

Note 3: For convenience where both expressions are used, they may be written in the form "decision altitude/height" and abbreviated "DA/H."

(209) **Defined point after take-off (DPATO).** The point, within the take-off and initial climb phase, before which the performance Class 2 helicopter's ability to continue the flight safely, with one engine inoperative, is not ensured and a forced landing may be required.

(210) **Defined point before landing (DPBL).** The point, within the approach and landing phase, after which the performance Class 2 helicopter's ability to continue the flight safely, with one engine inoperative, is not ensured and a forced landing may be required.

(211) **Design landing mass.** The maximum mass of the aircraft at which, for structural design purposes, it is assumed that it will be planned to land.

(212) **Design take-off mass.** The maximum mass at which the aircraft, for structural design purposes, is assumed to be planned to be at the start of the take-off run.

(213) **Design taxiing mass.** The maximum mass of the aircraft at which structural provision is made for load liable to occur during use of the aircraft on the ground prior to the start of take-off.

(214) **Designated examiner.** Any person designated by the Authority to act as a representative of the Authority in examining, inspecting, and testing persons for the purposes of issuing licences, ratings, or certificates.

(215) **Designated postal operator**. Any governmental or non-governmental entity officially designated by a UPU member country to operate postal services and to fulfil the related obligations arising from the acts of the UPU Convention on its territory.

(216) **Detect and avoid.** As of 26 November 2026, the capability to see, sense, or detect conflicting traffic or other hazards and take the appropriate action.

(217) **Directly in charge.** As relating to an AMO in Part 6 of these regulations, an appropriately licensed person(s) having the responsibility for the work of an AMO that performs maintenance, overhaul, modification, repair, inspection, or other functions affecting aircraft airworthiness. A person directly in charge does not need to physically observe and direct each worker constantly but must be available for consultation on matters requiring instruction or decision from a higher authority.

(218) **Director.** The DG CCAA.

(219) **Discrete source damage.** Structural damage of the aeroplane that is likely to result from impact with a bird, uncontained fan blade failure, uncontained engine failure, uncontained high-energy rotating machinery failure, or similar causes.

(220) **Disruptive passenger.** A passenger who fails to respect the rules of conduct at an aerodrome or on board an aircraft or to follow the instructions of aerodrome personnel or crew members and thereby disturbs the good order and discipline at the aerodrome or on board the aircraft.

(221) **Dry lease.** The lease of an aircraft without the crew.

(222) **Dry runway.** A runway is considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used.

(223) **Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorised pilot on board the aircraft or from a properly authorised remote pilot using the RPS during an RPA flight.

(224) **Duty.** Any task that flight or cabin crew members are required by the operator to perform, including, for example, flight duty, administrative work, training, positioning, and standby when it is likely to induce fatigue.

(225) **Duty period.** As related to an air operator, a period that starts when a flight or cabin crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties.

(226) **Duty time.** The total time from the moment a person identified in these regulations begins, immediately after a rest period, any work on behalf of the operator until that person is free from all restraint associated with that work.

(227) **Economic poison.** Any substance or mixture of substances intended for:

(i) Preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, except viruses on or in living human beings or other animals, that the Curaçao may declare to be a pest; or

(ii) Use as a plant regulator, defoliant, or desiccant.

(228) **Effective length of the runway.** The distance for landing from the point at which the obstruction clearance plane associated with the approach end of the runway intersects the centre line of the runway to the far end.

(229) **Electronic flight bag (EFB).** An electronic information system, consisting of equipment and applications for flight crew, that allows for the storing, updating, displaying, and processing of EFB functions to support flight operations or duties.

(230) **Elevated heliport.** A heliport located on a raised structure on land.

(231) **Emergency locator transmitter (ELT).** A generic term describing equipment that broadcasts distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or manually activated. An ELT may be any of the following:

(i) **Automatic fixed ELT (ELT(AF)).** An automatically activated ELT that is permanently attached to an aircraft.

(ii) **Automatic portable ELT (ELT(AP)).** An automatically activated ELT that is rigidly attached to an aircraft but readily removable from the aircraft.

(iii) **Automatic deployable ELT (ELT(AD)).** An ELT that is rigidly attached to an aircraft and automatically deployed and activated by impact and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

(iv) **Survival ELT (ELT(S)).** An ELT that is removable from an aircraft, stowed to facilitate its ready use in an emergency, and manually activated by survivors.

(232) **Engine.** A unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but it excludes the propeller/rotors (if applicable).

(233) **Enhanced ground proximity warning system (EGPWS).** A forward-looking warning system that uses the terrain database for terrain avoidance.

(234) **Enhanced vision system (EVS).** A system to display electronic real-time images of the external scene achieved through the use of image sensors.

Note: EVS does not include night vision imaging systems.

(235) **En-route phase.** That part of the flight from the end of the take-off and initial climb phase to the commencement of the approach and landing phase.

Note: Where adequate obstacle clearance cannot be guaranteed visually, flights must be planned to ensure that obstacles can be cleared by an appropriate margin. In the event of failure of the critical engine, operators may need to adopt alternative procedures.

(236) **Equivalent system of maintenance.** An AOC holder may conduct maintenance activities through an arrangement with an AMO or may conduct its own maintenance, overhaul, modifications, repairs, or inspections, as long as the AOC holder's maintenance system is approved by the Authority and is equivalent to that of an AMO, except that the approval for return to service of an aircraft/aeronautical product shall be made by an appropriately licensed AMT or ARS in accordance with Part 2 of these regulations, as appropriate.

(237) **Error.** As relates to the flight crew, an action or inaction by the flight crew that leads to deviations from organisational or flight crew intentions or expectations.

(238) **Error management.** The process of detecting errors and responding to them with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired states.

Note: See Chapter 6 of Part II, Section I, of ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG)*; and ICAO Circular 314,* Threat and Error Management (TEM) in Air Traffic Control*, for a description of undesired states.*

(239) **Estimated off-block time.** The estimated time at which the aircraft will commence movement associated with departure.

(240) **Estimated time of arrival.** For IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an IAP will be commenced or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For VFR flights, the time at which it is estimated that the aircraft will arrive over the aerodrome.

(241) **Examiner.** Any person designated by the Authority to act as a representative of the Authority in examining, inspecting, and testing persons and aircraft for the purpose of issuing licences, ratings, and certificates.

(242) **Exception.** As relating to dangerous goods in Part 9 of these regulations, a provision in ICAO Annex 18 that excludes a specific item of dangerous goods from the Standards normally applicable to that item.

(243) **Expected approach time.** The time at which ATC expects that an arriving aircraft, following a delay, will leave the holding point to complete its approach for a landing.

Note: The actual time of leaving the holding point will depend upon the approach clearance.

(244) **Extended diversion time operations (EDTO).** Any operation by an aeroplane with two or more turbine engines where the diversion time to an en route alternate aerodrome is greater than the threshold time established by the State of the Operator.

(245) **Extended diversion time operations (EDTO) critical fuel.** The fuel quantity necessary to fly to an en route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure.

(246) **Extended diversion time operations (EDTO) significant system.** An aeroplane system whose failure or degradation could adversely affect the safety particular to an EDTO flight or whose continued functioning is specifically important to the safe flight and landing of an aeroplane during an EDTO diversion.

(247) **Extended flight over water.** A flight operated over water at a distance of more than 93km (50 NM) or 30 minutes at normal cruising speed, whichever is the lesser, away from land suitable for making an emergency landing.

(248) **Extended overwater operation.** With respect to aircraft other than helicopters, an operation over water at a horizontal distance of more than 50 NM from the nearest shoreline; and to helicopters, an operation over water at a horizontal distance of more than 50 NM from the nearest shoreline and more than 50 NM from an offshore heliport structure.

(249) **Facility.** A physical plant, including land, buildings, and equipment, that provides a means for the conduct of the activities approved by the Authority for an approved or certificated entity.

(250) **Factor of safety.** A design factor used to provide for the possibility of loads greater than those assumed and for uncertainties in design and fabrication.

(251) **Fatal injury.** As relates to an aircraft accident, any injury that results in death within 30 days of the accident.

(252) **Fatigue.** A physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational duties.

(253) **Fatigue risk management system (FRMS).** A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience, that aims to ensure relevant personnel are performing at adequate levels of alertness.

(254) **Filed flight plan.** The flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes.

(255) **Final approach and take-off area (FATO).** A defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced. Where the FATO is to be used by performance Class 1 helicopters, the defined area includes the rejected take-off area available.

(256) **Final approach segment (FAS).** The segment of an IAP in which alignment and descent for landing are accomplished.

(257) **Finding.** A conclusion by audit personnel that demonstrates nonconformity with a specific standard.

(258) **Fireproof.** The capability to withstand the application of heat by a flame for a period of 15 minutes.

Note: The characteristics of an acceptable flame can be found in ISO 2685, Aircraft **–** Environmental test procedure for airborne equipment **–** Resistance to fire in designated fire zones.

(259) **Fireproof material.** A material capable of withstanding heat as well as or better than steel when the dimensions in both cases are appropriate for the specific purpose.

(260) **Fire resistant.** The capability to withstand the application of heat by a flame for a period of 5 minutes.

Note: The characteristics of an acceptable flame can be found in ISO 2685, Aircraft **–** Environmental test procedure for airborne equipment **–** Resistance to fire in designated fire zones.

(261) **Flight crew member.** A licensed crew member charged with duties essential to the operation of an aircraft during flight duty period.

(262) **Flight data analysis.** A process of analysing recorded flight data in order to improve the safety of flight operations.

(263) **Flight duty period.** A period that commences when a flight or cabin crew member is required to report for duty that includes a flight or a series of flights and that finishes when the aircraft finally comes to rest and the engines are shut down at the end of the last flight on which that individual is a crew member.

(264) **Flight information centre.** A unit established to provide flight information service and alerting service.

(265) **Flight information region.** An airspace of defined dimensions within which flight information service and alerting service are provided.

(266) **Flight information service.** A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

(267) **Flight level.** A surface of constant atmospheric pressure that is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

(268) **Flight manual.** A manual associated with the certificate of airworthiness that contains limitations within which the aircraft is to be considered airworthy and instructions and information necessary to the flight crew members for the safe operation of the aircraft.

(269) **Flight operations officer/flight dispatcher.** A person designated by the operator to engage in the control and supervision of flight operations, whether licensed or not, who is suitably qualified in accordance with ICAO Annex 1 and who supports, briefs, and/or assists the PIC in the safe conduct of the flight.

(270) **Flight plan.** Specified information provided to ATS units, relative to an intended flight or portion of a flight of an aircraft.

(271) **Flight recorder.** Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.

(272) **Flight(s).** The period from take-off to landing.

(273) **Flight safety documents system.** A set of interrelated documentation established by the operator, compiling and organising information necessary for flight and ground operations and comprising, as a minimum, the OM and the operator's MCM.

(274) **Flight simulation training device (FSTD).** Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

(i) **Flight simulator.** Provides an accurate representation of the flight deck of a particular aircraft type or an accurate representation of the RPAS to the extent that the mechanical, electrical, electronic, etc., aircraft systems control functions; the normal environment of flight crew members; and the performance and flight characteristics of that type of aircraft are realistically simulated.

(ii) **Flight procedures trainer.** Provides a realistic flight deck environment or realistic RPAS environment and simulates instrument responses; simple control functions of mechanical, electrical, electronic, etc., aircraft systems; and the performance and flight characteristics of aircraft of a particular class.

(iii) **Basic instrument flight trainer.** Is equipped with appropriate instruments and simulates the flight deck environment of an aircraft in flight or the RPAS environment in instrument flight conditions.

(275) **Flight simulator.** See flight simulation training device (FSTD).

(276) **Flight status.** An indication of whether or not a given aircraft requires special handling by ATS units.

(277) **Flight time.** The period of time that an aircraft moves under its own power for the purpose of flight, ending when the aircraft comes to rest after it is parked, with engine(s) shut down, if applicable.

Note: Flight time, as defined here, is synonymous with the terms "block-to-block" time or "chock-to-chock" time in general usage and is measured from the time an aircraft moves from the loading point until it stops at the unloading point.

(278) **Flight time – aeroplanes.** The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

(279) **Flight time – glider.** The total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight.

(280) **Flight time – helicopters.** The total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight and the rotor blades are stopped.

(281) **Flight time — remotely piloted aircraft (RPA) systems.** The total time from the moment a C2 Link is established between the RPS and the RPA for the purpose of taking off or from the moment the remote pilot receives control following a handover until the moment the remote pilot completes a handover or the C2 Link between the RPS and the RPA is terminated at the end of the flight.

(282) **Flight training.** Training, other than ground training, received from an authorised instructor in flight in an aircraft.

(283) **Flight visibility.** The visibility forward from the flight deck of an aircraft in flight.

(284) **Foreign air operator.** Any air operator, other than a Curaçao air operator, that undertakes, whether directly or indirectly or by lease or any other arrangement, to engage in commercial air transport operations within the borders or airspace of Curaçao, whether on a scheduled or charter basis.

(285) **Foreign Authority.** The civil aviation authority that issues and oversees the AOC of the foreign operator.

(286) **Freight container.** See unit load device (ULD).

(287) **Freight container in the case of radioactive material transport.** An article of transport equipment designed to facilitate the transport of packaged goods by one or more modes of transport without intermediate reloading. It shall be of a permanent enclosed character, rigid and strong enough for repeated use, and shall be fitted with devices facilitating its handling, particularly in transfer between aircraft and from one mode of transport to another. A small freight container is one that has either an overall outer dimension less than 1.5 m or an internal volume of not more than 3 m^3. Any other freight container is considered to be a large freight container.

(288) **General aviation operation.** An aircraft operation other than a commercial air transport operation or an aerial work operation.

(289) **Glider.** A non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces that remain fixed under given conditions of flight.

(290) **Ground handling.** Services necessary for an aircraft's arrival at, and departure from, an aerodrome, other than ATS.

(291) **Ground proximity warning system (GPWS).** A warning system that uses radar altimeters to alert the pilots of hazardous flight conditions.

(292) **Ground visibility.** The visibility at an aerodrome, as reported by an accredited observer or by automatic systems.

(293) **Gyroplane.** A heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors that rotate freely on substantially vertical axes.

(294) **Handling agent.** An agency that performs on behalf of the operator some or all of the latter's functions, including receiving, loading, unloading, transferring, or other processing of passengers or cargo.

(295) **Handover.** As of 26 November 2026, the act of passing piloting control from one RPS to another.

(296) **Hazard.** A condition or an object with the potential to cause injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

(297) **Heading.** The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from north (true, magnetic, compass, or grid).

(298) **Head-up display (HUD).** A display system that presents flight information into the pilot's forward external field of view.

(299) **Heavier-than-air aircraft.** Any aircraft deriving its lift in flight chiefly from aerodynamic forces.

(300) **Height.** The vertical distance of a level, a point, or an object considered a point, measured from a specified datum.

(301) **Helicopter.** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

(i) Categories:

(A) **Category A.** A multi-engine helicopter designed with engine and system isolation features specified in ICAO Annex 8, Part IVB, and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off.

(B) **Category B.** A single-engine or multi-engine helicopter that does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed.

(ii) Performance classes:

(A) **Class 1 helicopter.** A helicopter with performance such that, in case of critical engine failure, it is able to land within the rejected take-off area or safely continue the flight to an appropriate landing area, depending on when the failure occurs.

(B) **Class 2 helicopter.** A helicopter with performance such that, in case of critical engine failure, it is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which case a forced landing may be required.

(C) **Class 3 helicopter.** A helicopter with performance such that, in case of engine failure at any point in the flight profile, a forced landing must be performed.

Note 1: See also the definitions for operations in performance Class 1, Class 2, and Class 3 below.

Note 2: Helicopters operating as Class 1 or 2 will be certified as Category A. Helicopters operating as Class 3 will be certified as either Category A or B (or equivalent).

Note 3: Some States use the term "rotorcraft" as an alternative to "helicopter."

(302) **Helideck.** A heliport located on a floating or fixed offshore structure.

(303) **Heliport.** An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure, and surface movement of helicopters.

(304) **Heliport operating minima.** The limits of usability of a heliport for:

(i) Take-off, expressed in terms of RVR and/or visibility and, if necessary, cloud conditions;

(ii) Landing in 2D instrument approach operations, expressed in terms of visibility and/or RVR, MDA/H, and if necessary, cloud conditions; and

(iii) Landing in 3D instrument approach operations, expressed in terms of visibility and/or RVR and DA/H as appropriate to the type and/or category of the operation.

(305) **High-risk cargo or mail.** Cargo or mail which is deemed to pose a threat to civil aviation as a result of specific intelligence; or shows anomalies or signs of tampering which give rise to suspicion.

(306) **High speed aural warning.** A speed warning that is required for turbine-engine aeroplanes and aeroplanes with a Vmo/Mmo greater than 0.80 Vdf/Mdf or Vd/Md.

(307) **Holdover time.** The estimated time de-icing or anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft. Holdover time begins when the final application of de-icing or anti-icing fluid commences and expires when the de-icing or anti-icing fluid applied to the aircraft loses its effectiveness.

(308) **Hostile environment.** An environment in which:

(i) A safe forced landing cannot be accomplished because the surface and surrounding environment are inadequate;

(ii) The helicopter occupants cannot be adequately protected from the elements;

(iii) Search and rescue response/capability is not provided consistent with anticipated exposure; or

(iv) There is an unacceptable risk of endangering persons or property on the ground.

(309) **Housing.** As relating to AMOs that are certificated in accordance with Part 6 of these regulations, buildings, hangars, and other structures to accommodate the necessary equipment and materials of a maintenance organisation and to:

(i) Provide working space for the performance of maintenance, overhaul, modification, repair, and inspection for which the maintenance organisation is approved and rated;

(ii) Provide structures for the proper protection of aircraft and aeronautical products during disassembly, cleaning, inspection, repair, modification, assembly, and testing; and

(iii) Provide for the proper storage, segregation, and protection of materials, parts, and supplies.

(310) **Human factors principles.** Principles that apply to aeronautical design, certification, training, operations, and maintenance and that seek safe interface between the human and other system components by proper consideration to human performance.

(311) **Human performance.** Human capabilities and limitations that have an impact on the safety and efficiency of aeronautical operations.

(312) **ICAO.** Where used in these regulations, an abbreviation for the International Civil Aviation Organization.

(313) **ICAO competency framework**. Developed by ICAO, it is a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviours.

(314) **IFR.** The symbol used to designate the instrument flight rules.

(315) **IFR flight.** A flight conducted in accordance with the instrument flight rules.

(316) **IMC.** The symbol used to designate instrument meteorological conditions.

(317) **Incident.** An occurrence, other than an accident, associated with the operation of an aircraft, that affects or could affect the safety of operations.

Note: The types of incidents that are of interest for safety-related studies include the incidents listed in ICAO Annex 13, Attachment C.

(318) **Includes.** A rule of construction defined in paragraph 1.1.1.1(a)(5) of this part as "includes but is not limited to."

(319) **Incompatible.** Describing dangerous goods that, if mixed, would be liable to cause a dangerous evolution of heat or gas or produce a corrosive substance.

(320) **Industry codes of practice.** Guidance material developed by an industry body for a particular sector of the aviation industry to comply with the requirements of the ICAO SARPs, other aviation safety requirements, and the best practices deemed appropriate.

Note: Some States accept and reference industry codes of practice in the development of regulations to meet the requirements of ICAO Annex 6, Part II, and ICAO Annex 19, and make available, for the industry codes of practice, their sources and how they may be obtained.

(321) **Inspection.** The examination of an aircraft or aeronautical product to establish conformity with a standard approved by the Authority.

(322) **Instructions for continuing airworthiness.** A set of descriptive data, maintenance planning, and accomplishment instructions, developed by a design approval holder in accordance with the certification basis for the product, providing operators with the necessary information for the development of their own maintenance programme and accomplishment instructions.

(323) **Instrument approach categories.**

(i) **Category I (CAT I) operation.** A precision instrument approach and landing with a DH not lower than 60 m (200 ft) and with either a visibility not less than 800 m or an RVR not less than 550 m.

(ii) **Category II (CAT II) operation.** A precision instrument approach and landing with a DH lower than 60 m (200 ft), but not lower than 30 m (100 ft), and an RVR not less than 300 m.

(iii) **Category III (CAT III) operation.** A DH lower than 30 m (100 ft) or no DH and an RVR less than 300 m or no RVR limitations.

(324) **Instrument approach operations.** An approach and landing using instruments for navigation guidance based on an IAP. There are two methods for executing instrument approach operations:

(i) A 2D instrument approach operation, using lateral navigation guidance only; and

(ii) A 3D instrument approach operation, using both lateral and vertical navigation guidance.

Note: Lateral and vertical navigation guidance refers to the guidance provided either by: (a) a ground-based radio navigation aid; or (b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.

(325) **Instrument approach procedure (IAP).** A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix or, where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply. IAPs are classified as follows:

(i) **Non-precision approach (NPA) procedure.** An IAP designed for 2D instrument approach operations Type A.

Note: NPA procedures may be flown using a CDFA technique. CDFAs with advisory VNAV guidance calculated by on-board equipment are considered 3D instrument approach operations. CDFAs with manual calculation of the required rate of descent are considered 2D instrument approach operations. For more information on CDFAs, refer to ICAO Doc 8168, PANS-OPS*, Volume I, Part II, Section 5.*

(ii) **Approach procedure with vertical guidance (APV).** A PBN IAP designed for 3D instrument approach operations Type A.

(iii) **Precision approach (PA) procedure.** An IAP based on navigation systems (ILS, MLS, GLS, and SBAS CAT I) designed for 3D instrument approach operations Type A or B.

Note: Refer to ICAO Annex 6 for instrument approach operation types.

(326) **Instrument flight rules (IFR).** The rules that allow properly equipped aircraft to be flown under IMC.

Note: IFR are detailed in ICAO Annex 2, Chapter 5.

(327) **Instrument flight time.** Time during which a pilot is piloting an aircraft, or a remote pilot is piloting an RPA, solely by reference to instruments and without external reference points.

(328) **Instrument ground time.** Time during which a pilot is practising, on the ground, simulated instrument flight in an FSTD approved by the Licensing Authority.

(329) **Instrument landing system (ILS).** A precision runway approach aid based on two radio beams which together provide pilots with both vertical and horizontal guidance during an approach to land.

(330) **Instrument meteorological conditions (IMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

(331) **Instrument time.** Time in which flight deck instruments are used as the sole means for navigation and control, which may be instrument flight time or instrument ground time.

(332) **Instrument training.** Training that is received from an authorised instructor under actual or simulated IMC.

(333) **Integrated survival suit.** A survival suit that meets the combined requirements of the survival suit and life jacket.

(334) **Interchange agreement.** A leasing agreement that permits an air carrier to dry lease and take or relinquish operational control of an aircraft at an aerodrome.

(335) **International commercial air transport.** The carriage by aircraft of persons or property for remuneration or hire or the carriage of mail between any two or more countries.

(336) **International operating agency.** An agency of the kind contemplated in Article 77 of the Convention on International Civil Aviation (Chicago Convention).

(337) **Investigation.** As relates to an aircraft accident or incident, a process conducted for the purpose of accident prevention that includes the gathering and analysis of information; the drawing of conclusions, including the determination of causes; and when appropriate, the making of safety recommendations.

(338) **Investigator-in-charge.** As relates to an aircraft accident or incident, a person charged, on the basis of that person's qualifications, with the responsibility for the organisation, conduct, and control of an investigation.

(339) **Isolated aerodrome.** A destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type.

(340) **Journey log.** A form signed by the PIC of each flight that records the aeroplane's registration, crew member names and duty assignments, the type of flight, and the date, place, and time of arrival and departure.

(341) **Knowledge test.** A test on the aeronautical knowledge areas required for an airman licence or rating that can be administered in written form or by a computer.

(342) **Land distance available (LDA).** The length of runway that is declared available and suitable for the ground run of an aeroplane landing.

(343) **Landing area.** That part of a movement area intended for the landing or take-off of aircraft.

(344) **Landing decision point (LDP).** The point used in determining the Class 1 helicopter's landing performance from which, an engine failure having been recognised at this point, the landing may be safely continued or a balked landing initiated.

(345) **Landing surface.** That part of the surface of an aerodrome that the aerodrome authority has declared available for the normal ground or water run of aircraft landing in a particular direction.

(346) **Large aeroplane.** An aeroplane having a maximum certificated take-off mass of over 5 700 kg (12 500 lbs.).

(347) **Level.** A generic term relating to the vertical position of an aircraft in flight and meaning, variously, height, altitude, or flight level.

(348) **Licensing Authority.** The Authority designated by a Contracting State as responsible for the licensing of personnel.

Note: In these regulations, the Licensing Authority is deemed to have been given the following responsibilities by the Contracting State:

- *Assessment of an applicant's qualifications to hold a licence or rating;*
- *Issue and endorsement of licences and ratings;*
- *Designation and authorisation of approved persons;*
- *Approval of training courses;*

- *Approval of the use of FSTDs and authorisation for their use in gaining the experience or demonstrating the skill required for the issue of a licence or rating; and*
- *Validation of licences issued by other Contracting States.*

(349) **Life-limited part.** Any part for which a mandatory replacement limit is specified in the type design, the instructions for continuing airworthiness, or the AMM.

(350) **Lighter-than-air aircraft.** Any aircraft supported chiefly by its buoyancy in the air.

(351) **Likely.** In the context of the medical requirements for licensing in Part 2 of these regulations, likely means a probability of occurring that is unacceptable to the medical assessor.

(352) **Limit load.** The maximum load assumed to occur in the anticipated operating conditions.

(353) **Line check.** A check given to a pilot by a check pilot to evaluate the pilot's operational competency during line operating flight time, in an aircraft type the pilot is qualified to fly, over a route and area in which the AOC holder is authorised to operate.

(354) **Line maintenance.** Any unscheduled maintenance resulting from unforeseen events, or scheduled checks containing servicing and/or inspections that do not require specialised training, equipment, or facilities.

(355) **Line operating flight time.** Flight time recorded by the PIC or CP while in revenue service for an AOC holder.

(356) **Load factor.** The ratio of a specified load to the weight of the aircraft, the former being expressed in terms of aerodynamic forces, inertia forces, or ground reactions.

(357) **Long-range overwater flights.** Routes on which an aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 740 km (400 NM), whichever is the lesser, away from land suitable for making an emergency landing.

(358) **Lost command and control link (C2 Link) decision time.** As of 26 November 2026, the maximum length of time permitted before declaring a lost C2 Link state during which the C2 Link performance is not sufficient to allow the remote pilot to actively manage the flight in a safe and timely manner appropriate to the airspace and operational conditions.

(359) **Lost command and control link (C2 Link) state.** As of 26 November 2026, the state of the RPAS in which the C2 Link performance has degraded, as a result of a C2 Link interruption that is longer than the lost C2 Link decision time, to a point where it is not sufficient to allow the remote pilot to actively manage the flight in a safe and timely manner.

(360) **Low-altitude wind shear warning and guidance system.** A system that will issue a warning of low-altitude wind shear and in some cases provide the pilot with guidance information of the escape manoeuvre.

(361) **Low-visibility operations (LVO).** Approach operations in RVRs less than 550 m and/or with a DH less than 60 m (200 ft) or take-off operations in RVRs less than 400 m.

(362) **Mach number indicator.** An indicator that shows airspeed as a function of the Mach number.

(363) **Maintenance.** Until 25 November 2026, the performance of tasks on an aircraft, engine, propeller, or associated part required to ensure the continuing airworthiness of an aircraft, engine, propeller, or associated part, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

(364) **Maintenance.** As of 26 November 2026, the performance of tasks on an aircraft, RPS, engine, propeller, or associated part required to ensure the continuing airworthiness of an aircraft, RPS, engine, propeller, or associated part, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair

(365) **Maintenance Control Manual (MCM).** A document that describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

(366) **Maintenance organisation's procedures manual.** A document endorsed by the head of the maintenance organisation that details the maintenance organisation's structure and management responsibilities, scope of work, description of facilities, maintenance procedures, and quality assurance programme or equivalent system of inspections.

(367) **Maintenance programme.** A document that describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies.

(368) **Maintenance release.** A document that contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner in accordance with appropriate airworthiness requirements.

(369) **Major modification.** With respect to an aeronautical product for which a TC has been issued, a change in the type design that has an appreciable effect, or other than a negligible effect, on the mass and balance limits, structural strength, powerplant operation, flight characteristics, reliability, operational characteristics, or other characteristics or qualities affecting the airworthiness or environmental characteristics of an aeronautical product.

(370) **Major repair.** A repair that (1) if improperly done might appreciably affect mass, balance, structural strength, performance, powerplant, operations, flight characteristics, or other qualities affecting airworthiness or (2) is not done according to accepted practices or cannot be done by elementary operations.

(371) **Manoeuvring area.** That part of an aerodrome to be used for the take-off, landing, and taxiing of aircraft, excluding ramps.

(372) **Master minimum equipment list (MMEL).** A list established for a particular aircraft type by the organisation responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations, or procedures. The MMEL provides the basis for development, review, and approval by the Authority of an individual operator's MEL.

(373) **Materially modified aircraft.** Aircraft having powerplants installed other than those for which it is certified or modifications to the aircraft or its components that materially affect flight characteristics.

(374) **Maximum certificated take-off mass.** The maximum permissible take-off mass of the aircraft according to the certificate of airworthiness, the flight manual, or other official document.

(375) **Maximum diversion time.** Maximum allowable range, expressed in time, from a point on a route to an en route alternate aerodrome.

(376) **Maximum certificated take-off mass.** The maximum permissible take-off mass of the aircraft according to the certificate of airworthiness, the flight manual, or other official document.

(377) **May.** A rule of construction in paragraph 1.1.1.1(a)(3) of this part that indicates that discretion can be used when performing an act described in a regulation.

(378) **Medical assessment.** The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness.

(379) **Medical certificate.** A document issued by the Authority as acceptable evidence of physical fitness as required for certain personnel licence holders.

(380) **Meteorological information.** A meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions.

(381) **Minimum descent altitude (MDA) or minimum descent height (MDH).** A specified altitude or height in a 2D instrument approach operation or circling approach operation below which descent must not be made without the required visual reference.

Note 1: MDA is referenced to MSL and MDH is referenced to the aerodrome elevation or to the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An MDH for a circling approach is referenced to the aerodrome elevation.

Note 2: The required visual reference means that section of the visual aids or of the approach area that should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position in relation to the desired flight path. In the case of a circling approach, the required visual reference is the runway environment.

Note 3: For convenience, when both expressions are used they may be written in the form "minimum descent altitude/height" and abbreviated "MDA/H."

(382) **Minimum equipment list (MEL).** A list approved by the Authority that provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.

(383) **Minister.** The Minister responsible for civil aviation, as identified in the Luchtvaartlandsverordening (the Civil Aviation Act).

(384) **Minor modification.** A modification other than a major modification.

(385) **Modification.** The alteration of an aircraft/aeronautical product in conformity with an approved standard.

(386) **Monitoring**. A cognitive process to compare an actual to an expected state.

Note: Monitoring is embedded in the competencies for a given role within an aviation discipline, which serve as countermeasures in the threat and error management model. It requires knowledge, skills, and attitudes to create a mental model and to take appropriate action when deviations are recognised.

(387) **Movement area.** That part of an aerodrome to be used for take-off, landing, and taxiing of aircraft, consisting of the manoeuvring area and the ramp(s).

(388) **Navigable airspace.** The airspace above the minimum altitudes of flight prescribed in Part 8 of these regulations; includes airspace needed to ensure safety in the take-off and landing of aircraft.

(389) **Navigation of aircraft.** A function that includes the piloting of aircraft.

(390) **Navigation specification.** A set of aircraft and flight crew requirements needed to support PBN operations within a defined airspace. There are two kinds of navigation specifications:

(i) **Required navigation performance (RNP) specification.** A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP (e.g., RNP 4, RNP APCH).

(ii) **Area navigation (RNAV) specification.** A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV (e.g., RNAV 5, RNAV 1).

Note 1: ICAO Doc 9613, Performance-based Navigation (PBN) Manual*, Volume II, contains detailed guidance on navigation specifications.*

Note 2: The term RNP, previously defined as "a statement of the navigation performance necessary for operation within a defined airspace," has been removed from these regulations, as the concept of RNP has been overtaken by the concept of PBN. The term RNP is now solely used in the context of navigation specifications that require performance monitoring and alerting; for example, RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting, that are detailed in ICAO Doc 9613.

(391) **Night.** The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.

Note: Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.

(392) **Nominal command and control link (C2 Link) state.** As of 26 November 2026, the state of the RPAS when the C2 Link performance is sufficient to allow the remote pilot to actively manage the flight of the RPA in a safe and timely manner appropriate to the airspace and operational conditions.

(393) **Non-congested hostile environment.** A hostile environment outside a congested area.

(394) **Non-hostile environment.** An environment in which:

(i) A safe forced landing can be accomplished because the surface and surrounding environment are adequate;

(ii) Occupants can be adequately protected from the elements;

(iii) Search and rescue response/capability is provided consistent with anticipated exposure; and

(iv) The assessed risk of endangering persons or property on the ground is acceptable.

Note: Those parts of a congested area satisfying the above requirements are considered non-hostile.

(395) **Non-precision approach (NPA) procedure.** An IAP designed for 2D instrument approach operations Type A.

Note: NPA procedures may be flown using a CDFA. CDFA with advisory VNAV guidance calculated by on-board equipment (see ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), *Volume I,* Flight Procedures, *Part I, Section 4, Chapter 1, paragraph 1.8.1) are considered 3D instrument approach operations. CDFA with manual calculation of the required rate of descent are considered 2D instrument approach operations.*

(396) **NOTAM.** A notice distributed by means of telecommunication containing information concerning the establishment, condition, or change in any aeronautical facility, service, procedure, or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

(397) **Observable behaviour (OB)**. A single role-related behaviour that can be observed and may or may not be measurable.

(398) **Obstacle clearance altitude (OCA) or obstacle clearance height (OCH).** The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation, as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

Note 1: OCA is referenced to MSL and OCH is referenced to the threshold elevation or, in the case of NPA procedures, to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An OCH for a circling approach procedure is referenced to the aerodrome elevation.

Note 2: For convenience, when both expressions are used, they may be written in the form "obstacle clearance altitude/height" and abbreviated "OCA/H."

(399) **Obstruction clearance plane.** A plane sloping upward from the runway at a slope of 1:20 to the horizontal and tangent to or clearing all obstructions within a specified area surrounding the runway as shown in a profile view of that area. In the plane view, the centre line of the specified area coincides with the centre line of the runway, beginning at the point where the obstruction clearance plane intersects the centre line of the runway and proceeding to a point at least 450 m (1 500 ft) from the beginning point. Thereafter, the centre line coincides with the take-off path over the ground for the runway (in the case of take-offs) or with the instrument approach counterpart (for landings), or where the applicable one of these paths has not been established, it proceeds consistent with turns of at least a 1.2-km (4 000-ft) radius until a point is reached beyond which the obstruction clearance plane clears all obstructions. This area extends laterally 60 m (200 ft) on each side of the centre line at the point where the obstruction clearance plane intersects the runway and continues at this width to the end of the runway; then it increases uniformly to 150 m (500 ft) on each side of the centre line at a point 450 m (1 500 ft) from the intersection of the obstruction clearance plane with the runway; thereafter, it extends laterally 150 m (500 ft) on each side of the centre line.

(400) **Offshore operations.** Operations that routinely have a substantial proportion of the flight conducted over sea areas to or from offshore locations. Such operations include support of offshore oil, gas, and mineral exploitation and sea-pilot transfer.

(401) **Operating base.** The location from which operational control is exercised.

Note: An operating base is normally the location where personnel involved in the operation of the aeroplane work and where the records associated with the operation are located. An operating base has a degree of permanency beyond that of a regular point of call.

(402) **Operation.** An activity or group of activities that are subject to the same or similar hazards and require a set of equipment to be specified, or the achievement and maintenance of a set of pilot competencies, to eliminate or mitigate the risk of such hazards.

Note 1: Such activities could include offshore operations, heli-hoist operations, or emergency medical service.

(403) **Operational control.** The exercise of authority over the initiation, continuation, diversion, or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

(404) **Operational credit.** A credit authorised for operations with an advanced aircraft enabling a lower aerodrome operating minimum than would normally be authorised for a basic aircraft, based upon the performance of advanced aircraft systems utilising the available infrastructure.

(405) **Operational flight plan.** The operator's plan for the safe conduct of the flight based on considerations of aircraft performance, other operating limitations, and relevant expected conditions on the route to be followed and at the aerodromes or heliports concerned.

(406) **Operational personnel.** Personnel involved in aviation activities who are in a position to report safety information.

Note: Such personnel include flight crews, air traffic controllers, aeronautical station operators, maintenance technicians, personnel of aircraft design and manufacturing organisations, cabin crews, flight dispatchers, ramp personnel, and ground handling personnel.

(407) **Operations in performance Class 1.** Helicopter operations with performance such that, in the event of critical engine failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, unless the failure occurs prior to reaching the take-off decision point or after passing the LDP, in which cases the helicopter must be able to land within the rejected take-off or landing area.

(408) **Operations in performance Class 2.** Helicopter operations with performance such that, in the event of critical engine failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required.

(409) **Operations in performance Class 3.** Helicopter operations with performance such that, in the event of an engine failure at any time during the flight, a forced landing will be required.

(410) **Operations Manual (OM).** A manual containing procedures, instructions, and guidance for use by operational personnel in the execution of their duties.

(411) **Operations specifications (AOC).** The authorisations including specific approvals, conditions, and limitations associated with the AOC and subject to the conditions in the OM.

(412) **Operations specifications (AMO).** A part of the AMO certificate used to administer safety standards and define the terms, conditions, and limitations within which the AMO shall conduct business operations.

Note: Operations specifications are issued by the Authority and are considered a legal, contractual agreement between the Authority and the AMO.

(413) **Operator.** ~~A~~ person, organisation, or enterprise engaged in or offering to engage in an aircraft operation. The person who causes or authorises the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft, and/or the PIC.

Note: In the context of RPA, an aircraft operation includes the RPAS.

(414) **Operator's Maintenance Control Manual (MCM).** A document that describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

(415) **Organisation responsible for the type design.** Until 25 November 2026, the organisation that holds the TC, or an equivalent document, for an aircraft, engine, or propeller type, issued by a Contracting State.

(416) **Organisation responsible for the type design.** As of 26 November 2026, the organisation that holds the TC, or an equivalent document, for an aircraft, RPS, engine, or propeller type, issued by a Contracting State.

(417) **Ornithopter.** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on aeroplanes to which a flapping motion is imparted.

(418) **Overhaul.** The restoration of an aircraft/aeronautical product to a condition that will give a reasonable assurance of operation for a specified amount of time using methods, techniques, and practices acceptable to the Authority, including disassembly, cleaning, inspection, repair, reassembly; and testing.

(419) **Overpack.** An enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

(420) **Package.** The complete product of the packing operation, consisting of the packaging and its contents prepared for transport.

(421) **Packaging.** Receptacles and any other components or materials necessary for the receptacle to perform its containment function.

(422) **Passenger aircraft.** An aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorised representative of an appropriate national authority, or a person accompanying a consignment or other cargo.

(423) **Passenger exit seats.** Those seats having direct access to an exit, and those seats in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit. A passenger seat having "direct access" means a seat from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction.

(424) **Performance-based aerodrome operating minimum (PBAOM).** A lower aerodrome operating minimum, for a given take-off, approach, or landing operation, than is available when using a basic aircraft.

Note 1: The PBAOM is derived by considering the combined capabilities of the aircraft and available ground facilities. Additional guidance material on PBAOM may be found in ICAO Doc 9365, Manual of All-Weather Operations*.*

Note 2: The PBAOM is not limited to PBN operations.

(425) **Performance-based communication (PBC).** Communication based on performance specifications applied to the provision of ATS.

Note: An RCP specification includes communication performance requirements that are allocated to system components in terms of the communication to be provided and the associated transaction time, continuity, availability, integrity, safety, and functionality needed for the proposed operation in the context of a particular airspace concept.

(426) **Performance-based navigation (PBN).** Area navigation based on performance requirements for aircraft operating along an ATS route, on an IAP, or in a designated airspace.

Note: Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability, and functionality needed for the proposed operation in the context of a particular airspace concept.

(427) **Performance-based surveillance (PBS).** Surveillance based on performance specifications applied to the provision of ATS.

Note: An RSP specification includes surveillance performance requirements that are allocated to system components in terms of the surveillance to be provided and the associated data delivery time, continuity, availability, integrity, accuracy of the surveillance data, safety, and functionality needed for the proposed operation in the context of a particular airspace concept.

(428) **Performance Class 1 helicopter.** A helicopter with performance such that, in case of engine failure, it is able to land on the rejected take-off area or safely continue the flight to an appropriate landing area.

(429) **Performance Class 2 helicopter.** A helicopter with performance such that, in case of engine failure, it is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which cases a forced landing may be required.

(430) **Performance Class 3 helicopter.** A helicopter with performance such that, in case of engine failure at any point in the flight profile, a forced landing must be performed.

(431) **Performance criteria.** Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s), and a competency standard.

(432) **Person.** Any individual, firm, partnership, corporation, company, association, joint stock association, or body politic, including any trustee, receiver, assignee, or other similar representative of these entities.

(433) **Pilot flying (PF).** The pilot whose primary task is to control and manage the flight path. The secondary tasks of the PF are to perform non-flight-path-related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members.

(434) **Pilot-in-command (PIC).** The pilot responsible for the operation and safety of the aircraft during flight time. The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

(435) **Pilot-in-command (PIC) under supervision.** A CP performing, under the supervision of the PIC, the duties and functions of a PIC, in accordance with a method of supervision acceptable to the Licensing Authority.

(436) **Pilot monitoring (PM).** The pilot whose primary task is to monitor the flight path and its management by the PF. The secondary tasks of the PM are to perform non-flight-path-related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members.

(437) **Pilot time.** That time a person:

(i) Serves as a required pilot;

(ii) Receives training from an authorised instructor in an aircraft or an approved FSTD; or

(iii) Provides training as an authorised instructor in an aircraft or an approved FSTD.

(438) **Pilot (to).** To manipulate the flight controls of an aircraft during flight time.

(439) **Point of no return.** The last possible geographic point at which an aircraft can proceed to the destination aerodrome as well as to an available en route alternate aerodrome for a given flight.

(440) **Policy.** A document containing a position or stance regarding a specific issue.

(441) **Procedure.** A step-by-step logical progression of actions and decisions to achieve an objective.

(442) **Process.** A set of interrelated or interacted activities that transforms inputs into outputs.

(443) **Powered-lift.** A heavier-than-air aircraft capable of vertical take-off, vertical landing, and low-speed flight that depends principally on engine-driven lift devices or engine thrust for lift during these flight regimes and on non-rotating aerofoil(s) for lift during horizontal flight.

(444) **Powerplant.** An engine that is used or intended to be used for propelling aircraft. It includes turbo superchargers, appurtenances, and accessories necessary for its functioning but does not include propellers.

(445) **Power unit.** A system of one or more engines and ancillary parts that are together necessary to provide thrust, independently of the continued operation of any other power unit(s), but not including short period thrust-producing devices.

(446) **Practical test.** See Skill test.

(447) **Precision approach (PA) procedure.** An IAP based on navigation systems (ILS, MLS, GLS, and SBAS CAT I) designed for 3D instrument approach operations Type A or B.

Note: Refer to ICAO Annex 6, Part I: 4.2.8.3, for instrument approach operation types.

(448) **Pre-flight inspection.** The inspection carried out before flight to ensure that the aircraft is fit for the intended flight.

(449) **Prescribed.** A rule of construction in paragraph 1.1.1.1(a)(8) of this part that means the Authority has issued written policy or methodology that imposes either a mandatory requirement, if the written policy or methodology states “shall,” or a discretionary requirement, if the written policy or methodology states “may.”

(450) **Pressure altitude.** An atmospheric pressure expressed in terms of altitude, which corresponds to that pressure in the Standard Atmosphere.

(451) **Pressurised aircraft.** For airman-licensing purposes, an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25 000 ft MSL.

(452) **Preventive maintenance.** Simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations.

(453) **Primary standard.** A standard defined and maintained by a State Authority and used to calibrate secondary standards.

(454) **Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in a way that:

(i) Constitutes a direct hazard to the user or endangers the lives, health, or welfare of others; and/or

(ii) Causes or worsens an occupational, social, mental, or physical problem or disorder.

(455) **Proficiency check.** A competency test by a licence holder on the areas of operation contained in the skill test for a particular licence, certificate, rating, or authorisation that is conducted by an authorised representative of the Authority.

(456) **Prohibited area.** An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.

(457) **Propeller.** A device for propelling an aircraft that has blades on a powerplant-driven shaft and, when rotated, produces by its action on the air a thrust approximately perpendicular to its plane of rotation. It includes control components normally supplied by its manufacturer but does not include main and auxiliary rotors or rotating aerofoils of powerplants.

(458) **Proper shipping name.** The name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging.

(459) **Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, excluding coffee and tobacco.

(460) **Public aircraft.** An aircraft used exclusively in the service of any government or of any political jurisdiction thereof, including the Government of Curaçao, but not including any government-owned aircraft engaged in operations that meet the definition of commercial air transport operations.

(461) **Qualification-based training.** Training designed to ensure that graduates demonstrate the necessary minimum skill, knowledge, and experience levels to meet the qualification requirements of the licence, rating, or privilege.

(462) **Quality.** The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

(463) **Quality assurance.** As distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions that are required to provide adequate confidence that a product or service satisfies quality requirements.

(464) **Quality audit.** A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

(465) **Quality control.** The regulatory inspection process through which actual performance is compared with standards, such as the maintenance of standards of manufactured aeronautical products, and any difference is acted upon.

(466) **Quality inspection.** That part of quality management involving quality control. In other words, inspections accomplished to observe events, actions, documents, etc., in order to verify whether established operational procedures and requirements are fulfilled during the accomplishment of the event or action and whether the required standard is achieved. Student stage checks and skill tests are quality inspections, and they are also quality control functions.

(467) **Quality management.** A management approach focused on the means to achieve product or service quality objectives through the use of its four key components: quality planning, quality control, quality assurance, and quality improvement.

(468) **Quality manager.** The manager responsible for the monitoring function and for requesting remedial action.

(469) **Quality Manual.** The document containing the relevant information pertaining to the organisation's quality system.

(470) **Quality of service delivered (QoSD).** As of 26 November 2026, a statement of the QoS achieved or delivered to the RPAS operator by the C2CSP.

(471) **Quality of service required (QoSR).** As of 26 November 2026, a statement of the QoS requirements of the RPAS operator to the C2CSP.

Note: The QoSR may be expressed in descriptive terms (criteria) listed in the order of priority, with preferred performance value for each criterion. The C2CSP then translates these into parameters and metrics pertinent to the service.

(472) **Quality of training.** The outcome of the training that meets stated or implied needs within the framework of set standards.

(473) **Quality system.** The set of policies, processes and procedures required for the planning and execution of safe and efficient air operations. The system integrates the various internal processes and enables the organisation to identify, measure, control and improve the effectiveness and safety of its activities.

(474) **Radiotelephony.** A form of radiocommunication primarily intended for the exchange of information in the form of speech.

(475) **Ramp.** A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail, or cargo; fuelling; parking; or maintenance.

(476) **Rated air traffic controller.** An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.

(477) **Rating.** An authorisation entered on or associated with a licence or certificate and forming part thereof, stating special conditions, privileges, or limitations pertaining to such licence or certificate.

(478) **Reference standard.** A standard that is used to maintain working standards.

(479) **Reissue of a licence, rating, authorisation, or certificate.** The administrative action taken after a licence, rating, authorisation, or certificate has lapsed that reissues the privileges of the licence, rating, authorisation, or certificate for a further specified period contingent upon the fulfilment of specified requirements.

(480) **Remote co-pilot (CP).** A licensed remote pilot serving in any piloting capacity other than as remote PIC but excluding a remote pilot who is in the RPS for the sole purpose of receiving flight instruction.

(481) **Remote flight crew member.** A licensed flight crew member charged with duties essential to the operation of an RPAS during a flight duty period.

(482) **Remotely piloted aircraft (RPA).** An unmanned aircraft that is piloted from an RPS.

(483) **Remotely piloted aircraft system (RPAS).** An RPA, its associated RPSs, the required C2 Link(s), and any other components as specified in the type design.

(484) **Remote pilot.** A person charged by the operator with duties essential to the operation of an RPA and who manipulates the flight controls, as appropriate, during flight time.

(485) **Remote pilot-in-command (PIC).** The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

(486) **Remote pilot station (RPS).** The component of the RPAS containing the equipment used to pilot the RPA.

(487) **Rendering (a certificate of airworthiness) valid.** The action taken by a Contracting State, as an alternative to issuing its own certificate of airworthiness, in accepting a certificate of airworthiness issued by any other Contracting State as the equivalent of its own certificate of airworthiness. Also referred to as validation.

(488) **Rendering (a licence) valid.** The action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence. Also referred to as validation.

(489) **Renewal of licence, rating, authorisation, or certificate.** The administrative action taken within the period of validity of a licence, rating, authorisation, or certificate that allows the holder to continue to exercise the privileges of a licence, rating, authorisation, or certificate for a further specified period contingent upon the fulfilment of specified requirements.

(490) **Repair.** The restoration of an aircraft, engine, propeller, associated part, or, as of 26 November 2026, an RPS, to an airworthy condition in accordance with the appropriate airworthiness requirements, after it has been damaged or subjected to wear.

(491) **Repetitive flight plan (RPL).** A flight plan related to a series of frequently recurring, regularly operated individual flights with identical basic features, submitted by an operator for retention and repetitive use by ATC or ATS units.

(492) **Reporting point.** A specified geographical location in relation to which the position of an aircraft can be reported.

(493) **Required communication performance (RCP) specification.** A set of requirements for ATS provision and associated ground equipment, aircraft capability, and operations needed to support PBC.

(494) **Required inspection.** As used in Part 5 of these regulations, maintenance items and/or modifications that shall be inspected by a person other than the person performing the work and shall include at least those that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not properly performed or if improper parts or materials are used.

(495) **Required surveillance performance (RSP) specification.** A set of requirements for ATS provision and associated ground equipment, aircraft capability, and operations needed to support PBS.

(496) **Rest period.** A continuous and defined period of time, subsequent to and/or prior to duty, during which flight or cabin crew members are free of all duties.

(497) **Restricted area.** An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

(498) **Risk mitigation.** The process of incorporating defences or preventive controls to lower the severity and/or likelihood of a hazard's projected consequence.

(499) **Rotorcraft.** A power-driven, heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

(500) **Rotorcraft Flight Manual (RFM).** A manual, associated with the certificate of airworthiness, containing limitations within which the rotorcraft is to be considered airworthy and instructions and information necessary to the flight crew members for the safe operation of the rotorcraft.

(501) **Rotorcraft load combinations.** Configurations for external loads carried by rotorcraft:

(i) **Class A.** External load fixed to the rotorcraft, cannot be jettisoned, and does not extend below the landing gear, used to transport cargo.

(ii) **Class B.** External load suspended from the rotorcraft, can be jettisoned, and is transported free of land or water during rotorcraft operations.

(iii) **Class C.** External load suspended from the rotorcraft, can be jettisoned, but remains in contact with land or water during rotorcraft operation.

(iv) **Class D.** External load suspended from the rotorcraft for the carriage of persons.

(502) **Route sector.** A flight comprising take-off, departure, cruise of not less than 15 minutes, arrival, approach, and landing phases.

(503) **RPA observer.** A trained and competent person designated by the operator, who, by visual observation of the RPA, assists the remote pilot in the safe conduct of the flight.

(504) **Route stage.** A route or portion of a route flown without an intermediate landing.

(505) **Runway.** A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

(506) **Runway-holding position.** A designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower.

(507) **Runway visual range (RVR).** The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

(508) **Safe forced landing.** Unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface.

(509) **Safety.** The state in which risks associated with aviation activities, related to or in direct support of the operations of aircraft, are reduced and controlled to an acceptable level.

(510) **Safety data.** A defined set of facts or set of safety values collected from various aviation-related sources, which when analysed is used to maintain or improve safety.

Note: Such safety data is collected from proactive or reactive safety-related activities, including:

- *Accident or incident investigations;*
- *Safety reporting;*
- *Continuing airworthiness reporting;*
- *Operational performance monitoring;*
- *Inspections, audits, and surveys; or*
- *Safety studies and reviews.*

(511) **Safety information.** Safety data processed, organised, or presented in a given context so as to make it useful for the purpose of sharing, exchanging, or retaining for safety management.

(512) **Safety management system (SMS).** A systematic approach to managing safety, including the necessary organisational structures, accountability, responsibilities, policies, and procedures.

(513) **Safety oversight.** A function, performed by a State, that ensures that aviation licence, certificate, authorisation, or approval holders comply with safety-related standards, regulations, and associated procedures and includes the assessment of the service providers' SMS where necessary.

(514) **Safety performance.** A State or service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

(515) **Safety performance indicator.** A data-based parameter used for monitoring and assessing safety performance.

(516) **Safety performance target.** A State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

(517) **Safety programme.** An integrated set of regulations and activities aimed at improving safety.

(518) **Safety recommendation.** A proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.

(519) **Safety risk.** The predicted probability and severity of the consequences or outcomes of a hazard.

(520) **Safety-sensitive personnel.** Persons who might endanger aviation safety if they perform their duties and functions improperly, including crew members, aircraft maintenance personnel, and air traffic controllers.

(521) **Satellite approved training organisation (ATO).** An ATO at a location other than the ATO's principal place of business.

(522) **Satisfactory evidence.** A set of documents or activities that a Contracting State accepts as sufficient to show compliance with an airworthiness requirement.

(523) **Screening.** The application of technical or other means that are intended to identify and/or detect weapons, explosives, or other dangerous devices, articles, or substances that may be used to commit an act of unlawful interference.

Note 1: Certain dangerous articles or substances are classified as dangerous goods by ICAO Annex 18 and the Technical Instructions, and must be transported in accordance with those instructions. In addition, ICAO Doc 8973, Restricted – Aviation Security Manual, *provides a list of prohibited items that shall never be carried in the cabin of an aircraft.*

Note 2: See definition below for Technical Instructions.

(524) **Secondary standards.** A standard maintained by comparison with a primary standard.

(525) **Security audit.** An in-depth compliance examination of all aspects of the implementation of the national civil aviation security programme.

(526) **Security control.** A means by which the introduction of weapons, explosives, or other dangerous devices, articles, or substances that may be used to commit an act of unlawful interference can be prevented.

(527) **Security culture.** A set of security-related norms, values, attitudes, and assumptions that are inherent in the daily operation of an organisation and are reflected by the actions and behaviours of all entities and personnel within the organisation.

(528) **Security inspection.** An announced or unannounced examination of the effectiveness of the implementation of specific security measures.

(529) **Security restricted area.** Those areas of the airside of an aerodrome that are identified as priority risk areas where in addition to access control, other security controls are applied.

(530) **Security test.** A covert or overt trial of an aviation security measure that simulates an attempt to commit an unlawful act.

(531) **Series of flights.** Consecutive flights that:

(i) Begin and end within a period of 24 hours; and

(ii) Are all conducted by the same PIC.

(532) **Serious incident.** An incident involving circumstances indicating that an accident nearly occurred.

(533) **Serious injury.** An injury that is sustained by a person in an accident and that:

(i) Requires hospitalisation for more than 48 hours, commencing within 7 days from the date the injury was received;

(ii) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);

(iii) Involves lacerations that cause severe hemorrhage, nerve, muscle, or tendon damage;

(iv) Involves injury to any internal organ;

(v) Involves second- or third-degree burns or any burns affecting more than 5 per cent of the body surface; or

(vi) Involves verified exposure to infectious substances or injurious radiation.

(534) **Shall.** A rule of construction defined in paragraph 1.1.1.1(a)(1) of this part as indicating a mandatory requirement.

(535) **Signal area.** An area on an aerodrome used for the display of ground signals.

(536) **Sign an approval for return to service (to).** To certify that maintenance work has been completed satisfactorily in accordance with appropriate airworthiness requirements by issuing the approval for return to service referred to in CCAR Parts 6 and 9 of these regulations.

(537) **Signature.** An individual's unique identification used as a means of authenticating a record entry or record. A signature may be handwritten, electronic, or in any other form acceptable to the Authority.

(538) **Significant.** In the context of the medical provisions in subpart 2.11 of these regulations, significant means to a degree or of a nature that is likely to jeopardise flight safety.

(539) **Skill test.** A competency test on the areas of operation for a licence, certificate, rating, or authorisation that is conducted by having the applicant respond to questions and demonstrate manoeuvres in flight, in an approved FSTD, or in a combination of these.

(540) **Small aeroplane.** An aeroplane having a maximum certificated take-off mass of 5 700 kg or less.

(541) **SNOWTAM.** A special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water, or water associated with snow, slush, ice, or frost on the movement area.

(542) **Solo flight.** Flight time during which a student pilot is the sole occupant of the aircraft or flight time during which the student acts as a PIC of a gas balloon or an airship requiring more than one flight crew member.

(543) **Solo flight time.** Flight time during which a student pilot is the sole occupant of an aircraft.

(544) **Solo flight time – remotely piloted aircraft (RPA) systems.** Flight time during which a student remote pilot is controlling the RPAS, acting solo.

(545) **Spare parts.** Any parts, appurtenances, and accessories of aircraft (other than aircraft engines and propellers), aircraft engines (other than propellers), propellers, and appliances that are maintained for installation or use in an aircraft, aircraft engine, propeller, or appliance but at the time are not installed therein or attached thereto.

(546) **Special aircraft jurisdiction of Curaçao.** This includes:

(i) Civil aircraft of Curaçao; and

(ii) Any other aircraft within the jurisdiction of Curaçao, while the aircraft is in flight, which is from the moment when all external doors are closed following embarkation until the moment when one such door is opened for disembarkation or, in the case of a forced landing, until the competent authorities take over the responsibility of the aircraft and the persons and property aboard.

(547) **Special curricula.** A closely supervised, systematic, and continuous course of training, conforming to a planned syllabus or curriculum and conducted in an ATO.

Note: The definition of special curricula has been derived from the note to ICAO Annex 1: 1.2.8.

(548) **Specialised maintenance.** Any maintenance not normally performed by an AMO (e.g., tire retreating, plating).

(549) **Special VFR flight.** A VFR flight cleared by ATC to operate within a control zone in meteorological conditions below VMC.

(550) **Specific approval.** An approval that is documented in the operations specifications for commercial air transport operations or in the list of specific approvals for non-commercial operations.

Note: The terms "authorisation," "specific approval," "approval," and "acceptance" are further described in ICAO Annex 6, Part I, Attachment D; ICAO Annex 6, Part II, Attachment 3.D; and ICAO Annex 6, Part III, Attachment C.

(551) **Standard atmosphere.** An atmosphere defined as follows:

(i) The air is a perfect dry gas;

(ii) The physical constants are:

(A) Sea level mean molar mass: $M_0 = 28.964\ 420 \times 10^{-3}$ kg mol^{-1}

(B) Sea level atmospheric pressure: $P_0 = 1\ 013.250$ hPa

(C) Sea level temperature: $t_0 = 15°C$

$T_0 = 288.15$ K

(D) Sea level atmospheric density: $\rho_0 = 1.225\ 0$ kg m^{-3}

(E) Temperature of the ice point: $T_i = 273.15$ K

(F) Universal gas constant: $R^* = 8.314\ 32$ JK^{-1}mol^{-1}

(iii) The temperature gradients are:

Geopotential altitude (km)		*Temperature gradient (Kelvin per standard geopotential kilometre)*
From	*To*	
–5.0	11.0	–6.5
11.0	20.0	0.0
20.0	32.0	+1.0
32.0	47.0	+2.8
47.0	51.0	0.0
51.0	71.0	–2.8
71.0	80.0	–2.0

Note 1: The standard geopotential metre has the value 9.806 65 $m^2 s^{-2}$.

Note 2: See ICAO Doc 7488, Manual of the ICAO Standard Atmosphere (extended to 80 kilometres (262 500 feet)), *for the relationship between the variables and for tables giving the corresponding values of temperature, pressure, density, and geopotential.*

Note 3: ICAO Doc 7488 also gives the specific weight, dynamic viscosity, kinematic viscosity, and speed of sound at various altitudes.

(552) **State of Design.** The State having jurisdiction over the organisation responsible for the type design.

(553) **State of Design of Modification**. The State having jurisdiction over the individual or organisation responsible for the design of the modification or repair of an aircraft, engine, propeller, or, as of 25 November 2026, an RPS.

(554) **State of Destination.** As relating to dangerous goods, the State in the territory of which the dangerous goods consignment is finally to be unloaded from an aircraft.

(555) **State of Manufacture.** Until 25 November 2026, the State having jurisdiction over the organisation responsible for the final assembly of the aircraft, engine, or propeller.

(556) **State of Manufacture.** As of 26 November 2026, the State having jurisdiction over the organisation responsible for the final assembly of the aircraft, RPS, engine, or propeller.

(557) **State of Occurrence.** The State in the territory of which an accident or incident occurs.

(558) **State of Origin.** As relating to dangerous goods, the State in which dangerous goods were first loaded on an aircraft.

(559) **State of Registry.** The State on whose register the aircraft is entered.

Note: In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations that, under the Chicago Convention, are attached to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies, which can be found in ICAO Doc 9587, Policy and Guidance Material on the Economic Regulation of International Air Transport.

(560) **State of the Aerodrome.** The State in whose territory the aerodrome is located.

(561) **State of the Operator.** The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

(562) **State of the principal location of a general aviation operator.** The State in which the operator of a general aviation aircraft has its principal place of business or, if there is no such place of business, its permanent residence.

Note: Guidance concerning the options for the principal location of a general aviation operator is contained in ICAO Doc 10059, Manual on the Implementation of Article 83 *bis* of the Convention on International Civil Aviation.

(563) **State safety programme (SSP).** An integrated set of regulations and activities aimed at improving safety.

(564) **Stores (supplies).** Stores (supplies) (a) for consumption and (b) to be taken away.

(565) **Substantial damage.** Damage or failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft and that would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage for the purpose of this substantial damage relating to an aircraft accident.

(566) **Surveillance.** The State activities through which the State proactively verifies through inspections and audits that aviation licence, certificate, authorisation, or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State.

(567) **Switchover.** As of 26 November 2026, the act of transferring the active datalink path between RPS and the RPA from one of the links or networks that constitutes the C2 Link to another link or network that constitutes the C2 Link.

(568) **Syllabus (training).** As of 26 November 2026, the detailed summary or outline describing the main points of a course.

(569) **Synthetic flight trainer.** See flight simulation training device (FSTD).

(570) **Synthetic vision system (SVS).** A system to display data-derived synthetic images of the external scene from the perspective of the flight deck.

(571) **Take-off and initial climb phase.** That part of the flight from the start of take-off to 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or to the end of the climb in the other cases.

(572) **Take-off decision point.** The point used in determining take-off performance from which, a power-unit occurring at this point, either a rejected take-off may be made or a take-off may be safely continued. TDP applies to performance Class 1 helicopters.

(573) **Take-off safety speed for Category A rotorcraft (VTOSS).** As it pertains to rotary-wing aircraft, the minimum speed at which climb shall be achieved with the critical engine inoperative, the remaining engines operating within approved operating limits.

Note: The speed referred to above may be measured by instrument indications or achieved by a procedure specified in the flight manual.

(574) **Take-off surface.** The part of the surface of an aerodrome that the aerodrome authority has declared available for the normal ground or water run of aircraft taking off in a particular direction.

(575) **Target level of safety (TLS).** A generic term representing the level of risk that is considered acceptable in particular circumstances.

(576) **Taxiing.** Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.

(577) **Taxiway.** A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

(i) **Aircraft stand taxilane.** A portion of a ramp designated as a taxiway and intended to provide access to aircraft stands only.

(ii) **Ramp taxiway.** A portion of a taxiway system located on a ramp and intended to provide a through taxi route across the ramp.

(iii) **Rapid exit taxiway.** A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways, thereby minimising runway occupancy times.

(578) **Technical Instructions.** ICAO Doc 9284, *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, including the supplement and any addendum approved and issued periodically by the ICAO Council.

Note: The term "Technical Instructions" is used in these regulations.

(579) **Terminal control area.** A control area normally established at the confluence of ATC routes in the vicinity of one or more major aerodromes.

(580) **Terrain awareness warning system.** A system that provides the flight crew with sufficient information and alerts to detect a potentially hazardous terrain situation so the flight crew may take effective action to prevent a CFIT event.

(581) **Threat.** As relating to flight, events or errors that occur beyond the influence of an operational person, increase operational complexity, and shall be managed to maintain the margin of safety.

(582) **Threat management.** The process of detecting threats and responding to them with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.

Note: See Chapter 6 of Part II, Section I, of ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG), *and ICAO Circular 314,* Threat and Error Management (TEM) in Air Traffic Control*, for a description of undesired states.*

(583) **Threshold time.** The range, expressed in time, established by the State of the Operator, to an en route alternate aerodrome, where any time beyond requires a specific approval for EDTO from the State of the Operator.

(584) **Total estimated elapsed time.** For IFR flights, the estimated time required from take-off to arrive over that designated point, defined by reference to navigation aids, from which it is intended that an IAP will be commenced or, if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome. For VFR flights, the estimated time required from take-off to arrive over the destination aerodrome.

(585) **Total vertical error (TVE).** The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

(586) **Traceability.** A characteristic of a calibration, analogous to a pedigree. A traceable calibration is achieved when each measurement device and working standard, in a hierarchy stretching back to the national standard, was itself properly calibrated and the results properly documented. The documentation provides the information needed to show that all calibrations in the chain of calibrations were properly performed.

(587) **Track.** The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from north (true, magnetic, or grid).

(588) **Traffic avoidance advice.** Advice provided by an ATS unit specifying manoeuvres to assist a pilot to avoid a collision.

(589) **Traffic information.** Information issued by an ATS unit to alert a pilot to other known or observed air traffic that may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.

(590) **Training programme.** A programme that consists of courses, courseware, facilities, flight training equipment, and personnel necessary to accomplish a specific training objective. It may include a core curriculum and a specialty curriculum.

(591) **Training specifications.** A document issued to an ATO certificate holder by Curaçao that specifies training programme requirements and authorises the conduct of training, checking, and testing with any limitations thereof.

(592) **Training time.** The time spent receiving flight training, ground training, or simulated flight training in an approved FSTD from an authorised instructor.

(593) **Training to proficiency.** The process of the check pilot administering each prescribed manoeuvre and procedure to a pilot as necessary until it is performed successfully during the training period.

(594) **Transfer cargo and mail.** Cargo and mail departing on an aircraft other than that on which it arrived.

(595) **Transfer standard.** Any standard that is used to compare a measurement process, system, or device at one location or level with a measurement process, system, or device at another location or level.

(596) **Transition altitude.** The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

(597) **Type certificate (TC).** Until 25 November 2026, a document issued by a Contracting State to define the design of an aircraft, engine, or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State.

Note: In some Contracting States a document equivalent to a TC may be issued for an engine or propeller type.

(598) **Type certificate (TC).** As of 26 November 2026, a document issued by a Contracting State to define the design of an aircraft, RPS, engine, or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State.

Note 1: In some Contracting States a document equivalent to a TC may be issued for an engine or propeller type.

Note 2: As of 26 November 2026, a document equivalent to a TC may be issued for an RPS type.

(599) **Type design.** Until 25 November 2026, the set of data and information necessary to define an aircraft, engine, or propeller type for the purpose of airworthiness determination.

(600) **Type design.** As of 26 November 2026, the set of data and information necessary to define an aircraft, RPS, engine, or propeller type for the purpose of airworthiness determination.

(601) **Ultimate load.** The limit load multiplied by the appropriate factor of safety.

(602) **Unaided night flight.** For a flight in which a pilot uses night vision goggles, the portion of the flight in which the pilot does not use night vision goggles to maintain visual surface reference.

(603) **Undesired aircraft state.** Occurs when the flight crew places the aircraft in a situation of unnecessary risk.

(604) **Unidentified baggage.** Baggage at an aerodrome, with or without a baggage tag, that is not picked up by or identified with a passenger.

(605) **United Nations (UN) number.** The four-digit number assigned by the UN Committee of Experts on the Transport of Dangerous Goods and the UN Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances.

(606) **Unit load device (ULD).** Any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

(607) **Unmanned aircraft (UA).** Any aircraft intended to be flown without a pilot on board. It can be remotely and fully controlled from another place (ground, another aircraft, space) or pre-programmed to conduct its flight without intervention.

(608) **Unmanned aircraft system (UAS).** An aircraft and its associated elements that are operated with no pilot on board.

(609) **Unmanned free balloon.** A non-power-driven, unmanned, lighter-than-air aircraft in free flight.

(610) **Unpredictability.** The implementation of security measures in order to increase their deterrent effect and their efficiency by applying them at irregular frequencies, in different locations, and/or with varying means, in accordance with a defined framework.

(611) **Validation.** The action taken by Curaçao, as an alternative to issuing its own licence, in accepting a licence issued by another Contracting State as the equivalent of its own licence for use on aircraft registered in Curaçao. Also referred to as rendering a licence valid.

(612) **Visibility.** For aeronautical purposes, the greater of:

(i) The greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background;

(ii) The greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.

(613) **Visual flight rules (VFR).** The rules that govern the operation of aircraft in VMC.

Note: Because of the limited communication and/or navigation equipment required for VFR flight, a VFR aircraft may be subject to limitations if and when it is permitted in controlled airspace. Any conditions are detailed in the national AIPs.

(614) **Visual line-of-sight (VLOS) operation.** An operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the RPA.

(615) **Visual meteorological conditions (VMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

Note: The specified minima are contained in CCAR Part 8 of these regulations.

(616) **Wet lease.** The lease of an aircraft with crew and other backup.

(617) **Wet runway.** A runway is considered wet if its surface is covered by any visible dampness or water up to and including 3 mm deep within the intended area of use.

(618) **Will.** A rule of construction in paragraph 1.1.1.1(a)(4) of this part that indicates an action incumbent upon the Authority.

1.6 SAFETY MANAGEMENT

1.6.1.1 APPLICABILITY

(a) This subpart prescribes procedures applicable to safety management functions related to, or in direct support of, the safe operation of aircraft by:

(1) Specified aviation safety service providers; and

(2) Operators.

Note 1: Safety management provisions for States are contained in ICAO Annex 19, Chapter 3, and relate to an SSP.

Note 2: Within the context of these regulations, the term "service provider" refers to those organisations listed in 1.6.1.2 of this part and does not include international general aviation operators.

Note 3: Safety management provisions for specified aviation service providers and operators are in ICAO Annex 19, Chapter 4, and relate to SMS.

Note 4: Safety management provisions pertaining to specific types of aviation activities are addressed in the relevant Annexes.

Note 5: Basic safety management principles applicable to the medical assessment process of licence holders are contained in ICAO Annex 1. Guidance is available in ICAO Doc 8984, Manual of Civil Aviation Medicine.

1.6.1.2 SAFETY MANAGEMENT SYSTEM – SERVICE PROVIDERS

(a) The following service providers shall implement an SMS:

(1) ATOs, approved in accordance with Part 3 of these regulations, that are exposed to safety risks related to aircraft operations during the provision of their services;

(2) AOC holders, approved in accordance with Part 9 of these regulations, of aircraft;

(3) AMOs, approved in accordance with Part 6 of these regulations, providing services to operators of aircraft engaged in international commercial air transport;

(4) Organisations responsible for the type design or manufacture of aircraft, engines, propellers, or, as of 25 November 2026, RPSs;

(5) ATS providers; and

(6) Operators of certificated aerodromes.

(b) The service providers listed in paragraph 1.6.1.2(a) of this subsection shall implement an SMS acceptable to the Authority that as a minimum shall:

(1) Contain the components and elements prescribed in IS 1.6.1.2; and

(2) Be commensurate with the size of the service provider and the complexity of its aviation products or services.

(c) The SMS shall clearly define lines of safety accountability throughout the organisation, including a direct accountability for safety on the part of senior management.

Note 1: Guidance on the implementation of an SMS is contained in ICAO Doc 9859, Safety Management Manual (SMM).

Note 2: An SMS is also required by organisations involved in the type design or manufacture of aircraft, in accordance with ICAO Annex 8, and operators of aerodromes, in accordance with ICAO Annex 14, should a State have such service providers.

Note 3: *The provision of AIS, CNS, MET and/or SAR services, when under the authority of an ATS provider, are included in the scope of the ATS provider's SMS. When the provision of AIS, CNS, MET and/or SAR services are wholly or partially provided by an entity other than an ATS provider, the related services that come under the authority of the ATS provider, or those aspects of the services with direct operational implications, are included in the* scope *of the ATS provider's SMS.*

Note 4: As of 26 November 2026, safety management provisions for organisations responsible for the type design or manufacture of aircraft and RPSs and for AMOs are included in Annex 19. Further guidance is contained in ICAO Doc 9859, Safety Management Manual (SMM)*, and ICAO Doc 10019,* Manual on Remotely Piloted Aircraft Systems (RPAS)*.*

1.6.1.3 SAFETY MANAGEMENT SYSTEM – INTERNATIONAL GENERAL AVIATION OPERATORS

(a) International general aviation operators shall implement an SMS that meets the criteria established by the State of Registry when conducting operations with:

(1) An aeroplane with a maximum certificated take-off mass exceeding 5 700 kg;

(2) An aeroplane equipped with one or more turbojet engines; or

(3) An aeroplane with a seating configuration of more than nine passenger seats.

(b) The SMS shall be acceptable to the Authority and shall:

(1) Meet the criteria established by the State of Registry;

(2) Address the SMS framework and elements prescribed in IS 1.6.1.2; and

(3) Be commensurate with the size and complexity of the operation.

Note 1: Guidance on the implementation of an SMS for international general aviation is contained in ICAO Doc 9859, Safety Management Manual (SMM), *and in industry codes of practice.*

Note 2: Guidance concerning the responsibilities of the State of Registry in connection with lease, charter, and interchange operations is contained in ICAO Doc 8335, Manual of Procedures for Operations Inspection, Certification and Continued Surveillance*. Guidance concerning the transfer of State of Registry responsibilities to the State where the aircraft operator has its principal place of business or, if it has no such place of business, its permanent address in accordance with the Chicago Convention, Article 83* bis, *is contained in ICAO Doc 10059,* Manual on the Implementation of Article 83 *bis* of the Convention on International Civil Aviation*.*

1.7 State safety programme (SSP)

The Minister of Traffic, Transport and Urban Planning has appointed the Authority to establish and maintain a SSP commensurate with the size and complexity of the civil aviation system of Curaçao, but the Authority may delegate safety management-related functions and activities to another State, Regional Safety Oversight Organization (RSOO) or (Regional) Accident and Incident Investigation Organization (RAIO).

The SSP shall be established, maintained and implemented in compliance with the provisions of Chapter 3, entitled State Safety Management Responsibilities of Annex 19 of the Chicago Convention, as amended.

1.8 Safety data and safety information collection, analysis, protection, sharing and exchange

To ensure the continued availability of safety data and safety information to support safety management activities the Authority shall collect, analyse, protect, share and exchange safety data and safety information in compliance with the provisions of Chapter 5, entitled Safety data and safety information collection, analysis, protection, sharing and exchange of Annex 19 of the Chicago Convention, as amended**.**

CURAÇAO CIVIL AVIATION REGULATIONS

PART 1 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 1.2.1.8 reflects a standard required by 1.2.1.8 of this part.

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PART 1 – IMPLEMENTING STANDARDS

IS 1.2.1.8 PSYCHOACTIVE SUBSTANCE TESTING AND REPORTING

(a) The following are deemed to be psychoactive substances:

(1) Alcohol;

(2) Opioids;

(3) Cannabinoids;

(4) Sedatives and hypnotics;

(5) Cocaine and other stimulants (except caffeine);

(6) Hallucinogens; and

(7) Volatile solvents.

Note: See ICAO Doc 9654, Manual on Prevention of Problematic Use of Substances in the Aviation Workplace.

IS 1.3.3 LEGAL ENFORCEMENT ACTIONS

(a) These sanction guidance tables provide an approach to assessment of sanctions for violations of these regulations.

(b) These tables describe penalties for a single violation of a particular regulation, in accordance with the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, and the regulations issued thereunder. These terms are defined in the following tables.

(c) These tables describe penalties for a single violation of a particular regulation, in accordance with the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, and the regulation issued thereunder. These terms are defined in the following tables.

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Table 2. Sanctions

Violation	Sanction per Violation	License and Certificate Action
I. AIR OPERATORS AND AERODROME OPERATORS		
1. AMM		
(a) Failure to maintain current manual		Up to 7-day suspension
(b) Failure to provide adequate instructions and procedures in manual		
(c) Failure to distribute manual to appropriate personnel		
(d) Release of aircraft without required equipment		Up to 7-day suspension
2. Failure to comply with ADs		
3. Operations specifications		
(a) Failure to comply with inspection and overhaul time limitations		Up to 7-day suspension
(b) Operations contrary to operations specifications – technical noncompliance		
(c) Operations contrary to operations specifications – likely potential or actual adverse effect on safe operations		
4. Failure to provide adequately for proper servicing, maintenance, repair, and inspection of facilities and equipment		Indefinite suspension until proper servicing, maintenance, repair, and inspection of facilities and equipment is provided to revocation
5. Failure to provide or maintain a maintenance and inspection organisation		Indefinite suspension until appropriate maintenance and inspection organisation is provided to revocation
6. Training programme		
(a) Failure to have or maintain an effective training programme		Indefinite suspension until compliance is demonstrated to revocation
(b) Failure to maintain a training programme		
(c) Failure to train personnel adequately		

Violation	Sanction per Violation	License and Certificate Action
7. Maintenance or aircraft paperwork		
(a) Incomplete or unsigned release		
(b) Failure to revise aircraft data after repair		
8. Performance of maintenance		
(a) By unauthorised person		
(b) Failure to perform or improper maintenance		
9. Failure to revise aircraft data after repair		
10. Records and reports		
(a) Failure to make accurate mechanical interruption summary reports		
(b) Failure to make available reports of major modifications or repairs		Indefinite suspension to revocation
(c) Failure to make accurate mechanical reliability reports		
(d) Failure to keep continuing airworthiness records		7-day suspension and thereafter until aircraft is in airworthy condition
(e) Failure to make required entry in aircraft log		
(f) Failure to make available pilot records		Indefinite suspension to revocation
(g) Failure to make available load manifests		Indefinite suspension to revocation
(h) Failure to monitor and record en route radio communications		
(i) Deliberate violation – intentional false or fraudulent entry, reproduction, or alteration in record or report		Revocation
(j) Deliberate violation – other		180-day suspension to revocation
11. Operation of an unairworthy aircraft		
(a) Technical nonconformity to type certificate, but no likely effect (potential or actual) on safe operation		
(b) Nonconformity that may have, or has, an adverse effect on safety of operation		
(c) Release of aircraft without required equipment		Up to 7-day suspension

Violation	Sanction per Violation	License and Certificate Action
12. Provisions specific to passenger carrying		
(a) Boarding or serving alcoholic beverages to a person who appears to be intoxicated		
(b) Failure to brief passengers		
(c) Failure to ensure seat and belt for each passenger		
(d) Operation without operable public address system		
(e) Failure to store baggage properly		
13. Failure to make available a seat on the flight deck for Authority inspectors conducting an en route inspection		
14. Provisions specific to flight deck crew		
(a) Using an unqualified crew member		
(b) Using a crew member with an expired medical certificate		
(c) Flight and duty time violations		
15. Violation of flight dispatch and release		
16. Other provisions		
(a) Improperly returning an aircraft to service		
(b) Illegal carriage of controlled substance with knowledge of carrier, i.e., knowledge of management personnel		Revocation
(c) Use of unqualified personnel other than flight deck crew member		
17. Security violations		
(a) Failure to properly screen baggage or each passenger		
(b) Unauthorised access to aerodrome operations area		
(c) Failure to comply with air carrier security programme, including failure to detect weapons, incendiary devices, and other dangerous devices		
(d) Management personnel coerce, condone, or encourage falsification of records/reports		Revocation
(e) Deliberate failure to maintain employee records		
(f) Failure to challenge		
(g) Failure to test screeners or test equipment		
(h) Failure to properly train		
(i) Unintentional failure to maintain screener		

Violation	Sanction per Violation	License and Certificate Action
test records		
(j) Improper use of dosimeters		
(k) Failure to display identification		
(l) Failure to manage/control identification system		
(m) Failure to conduct background check		
(n) Failure to detect test objects		
(o) Failure to comply with approved or current security programme		
(p) Failure of the law enforcement officer to respond in a timely manner		
II. PERSONNEL OF AIR CARRIERS		
1. Maintenance, including inspections		
(a) Performing maintenance without a licence, rating, or authorisation		
(b) Performing maintenance that exceeds limitations		30- to 45-day suspension
(c) Failure to perform maintenance properly		30- to 120-day suspension
2. Inspection personnel		
(a) Failure to make required inspection		30- to 60-day suspension
(b) Making improper inspection		30- to 120-day suspension
(c) Improperly releasing an aircraft to service		30- to 60-day suspension
(d) Releasing aircraft for service without required equipment		30- to 60-day suspension
3. Records and reports		
(a) Failure to make entries in aircraft log		15- to 60-day suspension
(b) Failure to make entries in worksheets		15- to 30-day suspension
(c) Failure to make entries in other continuing airworthiness records		15- to 30-day suspension
(d) Failure to sign off on work or inspection performed		15- to 30-day suspension

Violation	Sanction per Violation	License and Certificate Action
(e) Failure to complete and sign an approval for return to service		15- to 30-day suspension
(f) Intentional falsification of records or reports		Revocation
4. Pre-flight		
(a) Failure to use pre-flight flight deck checklist		30- to 60-day suspension
(b) Failure to check aircraft logs, flight manifests, weather, etc.		30- to 90-day suspension
(c) Failure to make the required inspection		30- to 60-day suspension
(d) Failure to inspect, or improper inspection of, aircraft		15- to 30-day suspension
(e) Failure to ensure seat and belt are available for each passenger		30- to 60-day suspension
5. Taxiing		
(a) Failure to adhere to taxi clearance or instruction		30- to 60-day suspension
(b) Collision while taxiing		30- to 180-day suspension
(c) Jet blast		30- to 120-day suspension
(d) Taxiing with passenger standing		30- to 60-day suspension
(e) Taxiing off runway, taxiway, or ramp		30- to 90-day suspension
6. Take-off		
(a) Take-off against instruction or clearance		60- to 120-day suspension
(b) Take-off below weather minima		60- to 120-day suspension
(c) Take-off in overloaded aircraft (in excess of maximum certificated take-off mass)		60- to 120-day suspension
7. En route		
(a) Deviation from clearance or instruction		30- to 90-day suspension
(b) Operating VFR within clouds		90-day suspension to revocation
(c) Operation of unairworthy aircraft		30- to 180-day suspension
(d) Unauthorised departure from flight deck		15- to 30-day suspension
(e) Operating within restricted or prohibited area or within positive control area with clearance		30- to 90-day suspension

Violation	Sanction per Violation	License and Certificate Action
(f) Operating without required equipment		15- to 120-day suspension
(g) Fuel mismanagement/exhaustion		30- to 150-day suspension
(h) Operating contrary to NOTAM		30- to 90-day suspension
(i) Unauthorised manipulation of controls		30- to 90-day suspension
8. Approach to landing		
(a) Deviation from clearance or instruction in terminal area		30- to 90-day suspension
(b) Approach below weather minima		60- to 120-day suspension
(c) Exceeding speed limitation in aerodrome traffic areas		30- to 60-day suspension
9. Landing		
(a) Landing at wrong aerodrome		90- to 180-day suspension
(b) Deviation from instrument approach procedure		30- to 90-day suspension
(c) Overweight landing		30- to 90-day suspension
(d) Hard landing		15- to 60-day suspension
(e) Short or long landing		30- to 180-day suspension
(f) Wheels-up landing		15- to 90-day suspension
(g) Failure to comply with preferential runway system		15-day suspension
(h) Deviating from clearance or instruction		30- to 90-day suspension
10. Unauthorised admission to flight deck		30- to 90-day suspension
11. Failure to close and lock flight deck door		30-day suspension
12. Acting, or attempting to act, as flight crew member while under the influence of liquor or other psychoactive substances, or alcoholic beverage consumption within 8 hours		Emergency revocation
13. Denial of authorised entry to flight deck by authorised inspector		30- to 60-day suspension
14. Flight and duty time limitations		15- to 90-day suspension

Violation	Sanction per Violation	License and Certificate Action
15. Operation without required licence, certificate, or rating		
(a) Medical certificate		30- to 90-day suspension
(b) Lack of type rating		180-day suspension to revocation
(c) Missed proficiency check or line check		30- to 90-day suspension
(d) Lack of current experience, initial or recurrent training		30- to 90-day suspension
(e) Failure to have current medical certificate or licence or authorisation in possession		
(f) Operation with known disqualifying physical disability		Revocation
(g) Operation without valid medical certificate when not medically qualified or application for medical certificate deferred		Revocation
16. Failure to keep manual current		30- to 90-day suspension
III. INDIVIDUALS AND GENERAL AVIATION – OWNERS, PILOTS, MAINTENANCE PERSONNEL, APPROVED MAINTENANCE ORGANISATIONS, APPROVED TRAINING ORGANISATIONS		
1. Owners and operators other than required crew members		
(a) Failure to comply with ADs		
(b) Failure to perform, or improper performance of, maintenance, including required maintenance		
(c) Failure to make proper entries in aircraft logs		
(d) Operation of aircraft beyond annual, 100-hour, or progressive inspection		
(e) Operation of unairworthy aircraft		
(f) Intentional falsification of any entry, reproduction, or alteration in any record or report		Revocation
2. Aviation maintenance organisations		
(a) Failure to provide adequately for proper servicing, maintenance, repairs, and inspection		Indefinite suspension until compliance to revocation

Violation	Sanction per Violation	License and Certificate Action
(b) Failure to provide adequate personnel who can perform, supervise, and inspect work for which the maintenance organisation is rated		7-day suspension and thereafter until adequate personnel are provided Indefinite suspension until compliance to revocation
(c) Failure to have enough qualified personnel to keep up with the volume of work		Up to 7-day suspension and thereafter until certificate holder has enough qualified personnel
(d) Failure to maintain records of supervisory and inspection personnel		
(e) Failure to maintain performance records and reports		
(f) Failure to ensure correct calibration of all inspection and test equipment is accomplished at prescribed intervals		
(g) Failure to set forth adequate description of work performed		
(h) Failure of mechanic to make log entries, records, or reports		
(i) Failure to sign or complete an approval for return to service		
(j) Inspection of work performed and approval for return to service by other than a qualified inspector		Up to 30-day suspension
(k) Failure to have an adequate inspection system that produces satisfactory quality control		Up to 30-day suspension and thereafter until an adequate inspection system is attained
(l) Maintaining or modifying an aeronautical product for which it is rated, without using required technical data, equipment, or facilities		Up to 30-day suspension
(m) Failure to perform or properly perform maintenance, repairs, modifications, or required inspections		Up to 30-day suspension
(n) Maintaining or modifying an airframe, powerplant, propeller, instrument, radio, or accessory for which it is not rated		Suspension or revocation
(o) Failure to report defects or unairworthy conditions to the Authority in a timely manner		

Violation	Sanction per Violation	License and Certificate Action
(p) Failure to satisfy housing and facility requirements		Suspension until housing and facility requirements are satisfied
(q) Change of location, housing, or facilities without advance written approval		Suspension until approval is given
(r) Operating as a certificated maintenance organisation without an AMO certificate		
(s) Failure to permit Authority to inspect		Indefinite suspension until Authority is permitted to inspect
3. General aviation maintenance personnel		
(a) Failure to revise aircraft data after major repairs or modifications		30- to 60-day suspension
(b) Failure to perform or improper performance of maintenance		30- to 120-day suspension
(c) Failure of mechanic to properly accomplish inspection		30- to 60-day suspension
(d) Failure of mechanic to record inspection		15- to 30-day suspension
(e) Failure of inspection authorisation holder to properly accomplish inspection		60-day suspension to revocation
(f) Failure of inspection authorisation holder to record inspection		15- to 30-day suspension
(g) Maintenance performed by person without a certificate		
(h) Maintenance performed by person who exceeded certificate limitations		15- to 60-day suspension
(i) Improper approval for return to service		30- to 120-day suspension
(j) Failure to make continuing airworthiness record entries		30- to 60-day suspension
(k) Failure to set forth adequate description of work performed		15- to 30-day suspension
(l) Falsification of continuing airworthiness records		Revocation
4. Student operations		
(a) Carrying passengers		Revocation
(b) Solo flight without endorsement		45- to 90-day suspension
(c) Operation on international flight		60- to 90-day suspension
(d) Use of aircraft in business		30- to 120-day

Violation	Sanction per Violation	License and Certificate Action
		suspension
(e) Operation for compensation or hire		Revocation
5. Instructors for licences, ratings, authorisations, and endorsement		
(a) False endorsement of a student licence, rating, authorisation, or record		Revocation
(b) Exceeding flight time limitations or other training time limitations		30- to 90-day suspension
(c) Instruction in aircraft and/or course for which the instructor is not rated		60- to 180-day suspension
6. Operational violations		
(a) Operation without valid airworthiness or registration certificate	30- to 90-day suspension	
(b) Failure to close flight plan or file arrival notice	Administrative action to civil penalty of category	
(c) Operation without valid pilot licence (no licence issued)		
(d) Operation while pilot licence is suspended		Emergency revocation
(e) Operation without pilot licence or medical certificate in personal possession		
(f) Operation without valid medical certificate (no medical certificate issued)		Revocation
(g) Operation for compensation or hire without CPL		90-day suspension to revocation
(h) Operation without type or class rating		60- to 120-day suspension
(i) Failure to comply with special conditions of medical certificate		90-day suspension to revocation
(j) Operation with known physical deficiency		90-day suspension to revocation
(k) Failure to obtain pre-flight information		30- to 90-day suspension
(l) Deviation from ATC instruction or clearance		30- to 90-day suspension
(m) Taxiing, take-off, or landing without a clearance where ATC tower is open		30- to 90-day suspension
(n) Failure to maintain radio communications in aerodrome traffic area		30- to 60-day suspension
(o) Failure to comply with aerodrome traffic pattern		30- to 60-day suspension
(p) Operation in terminal control area without or contrary to a clearance		60- to 90-day suspension

Violation	Sanction per Violation	License and Certificate Action
(q) Failure to maintain altitude in aerodrome traffic area		30- to 60-day suspension
(r) Exceeding speed limitations in traffic area		30- to 60-day suspension
(s) Operation of unairworthy aircraft		30- to 180-day suspension
(t) Failure to comply with Airworthiness Directives		30- to 180-day suspension
(u) Operation without required instruments and/or equipment		30- to 90-day suspension
(v) Exceeding operating limitations		30- to 90-day suspension
(w) Operation within prohibited or restricted area, or within positive control area		30- to 90-day suspension
(x) Failure to adhere to right-of-way rules		30- to 90-day suspension
(y) Failure to comply with VFR cruising altitudes		30- to 90-day suspension
(z) Failure to maintain required minimum altitudes over structures, persons, or vehicles over:		
i. Congested area		60- to 180-day suspension
ii. Sparsely populated area		30- to 120-day suspension
(aa) Failure to maintain radio watch while under IFR		30- to 60-day suspension
(bb) Failure to report compulsory reporting points under IFR		30- to 60-day suspension
(cc) Failure to display position lights		30- to 60-day suspension
(dd) Failure to maintain proper altimeter settings		30- to 60-day suspension
(ee) Weather operations:		
i. Failure to comply with visibility minima in controlled airspace		60- to 180-day suspension
ii. Failure to comply with visibility minima outside controlled airspace		30- to 120-day suspension
iii. Failure to comply with distance from clouds requirements in controlled airspace		60- to 180-day suspension
iv. Failure to comply with distance from clouds requirements outside controlled airspace		30- to 120-day suspension

Violation	Sanction per Violation	License and Certificate Action
(ff) Failure to comply with IFR landing minima		45- to 180-day suspension
(gg) Failure to comply with instrument approach procedures		45- to 180-day suspension
(hh) Careless or reckless operations:		
i. Fuel mismanagement/exhaustion		30- to 150-day suspension
ii. Wheels-up landing		30- to 60-day suspension
iii. Short or long landing		30- to 90-day suspension
iv. Landing on or taking off from closed runway		30- to 60-day suspension
v. Landing on or taking off from ramps or other improper areas		30- to 120-day suspension
vi. Taxiing collision		30- to 90-day suspension
vii. Leaving aircraft unattended with motor running		30- to 90-day suspension
viii. Propping aircraft without a qualified person at controls		30- to 90-day suspension
ix. Unauthorised dropping of object from aircraft		30- to 60-day suspension
x. Unauthorised towing		30- to 60-day suspension
xi. Acrobatic flight on airway, over congested area, below minimum altitude, etc.		90- to 180-day suspension
xii. Taking off with insufficient fuel		30- to 150-day suspension
xiii. Operating so as to cause a collision hazard		60- to 180-day suspension
xiv. Taxiing aircraft off runway, taxiway, or ramp		30- to 90-day suspension
(ii) Passenger operations		
i. Operation without approved seat or berth and approved safety belt for each person on board the aircraft required to have them during take-off, en route flight, and landing		30- to 60-day suspension
ii. Carrying passengers who are under the influence of drugs or alcohol		60- to 120-day suspension

Violation	Sanction per Violation	License and Certificate Action
iii. Performing acrobatics when all passengers are not equipped with approved parachutes		60- to 90-day suspension
iv. Use of unapproved parachute		30- to 60-day suspension
v. Permitting unauthorised parachute jumping		30- to 90-day suspension
vi. Carrying passenger(s) without required recent flight experience		30- to 120-day suspension
7. ID plate violations		
(a) Improper removal, changing, or placing of identification information on a product		
i. Inadvertent		
ii. Intentionally misrepresenting identity of product		Revocation
(b) Improper removal or installation of identification plate		
i. Inadvertent		
ii. Intentionally misrepresenting identity of product		Revocation
8. Approved Training Organisations		
(a) Knowingly permitting school aircraft to be used for unlawful carriage of controlled substances or other illegal activities		Revocation
(b) Refusal to permit inspection of facilities, equipment, personnel, records, or certificate by the Authority		Indefinite suspension until Authority is permitted to inspect, up to revocation
(c) False advertising		
(d) Improper crediting to or graduation of student		
i. Inadvertent		
ii. Intentional		Revocation
(e) Refusal to permit Authority test, check, or examination of student		Indefinite suspension until Authority is permitted to test, check, or examine, up to revocation
(f) Unqualified or unauthorised instruction		
(g) Failure to establish or maintain training record		
(h) Failure to carry checklist or operator's		

Violation	Sanction per Violation	License and Certificate Action
handbook		
IV. SECURITY AND SAFETY VIOLATIONS BY INDIVIDUALS		
1. Checked baggage		
(a) Failure to declare unloaded firearm		
(b) Loaded firearm		
(c) Incendiary/explosive	criminal referral	
2. Non-passengers: No intent to board		
(a) Possession of firearm (unloaded, unloaded with ammunition accessible, or loaded) or other dangerous or deadly weapon (including stun guns):		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area with no aggravating circumstances		
iv. In sterile area with aggravating circumstances		
(b) Possession of incendiary/explosive at screening point or in sterile area with no intent to board a flight	criminal referral	
(c) Artful concealment of firearm (loaded or unloaded), other dangerous or deadly weapon (including stun guns), or incendiary/explosive at screening point or in sterile area	criminal referral	
3. Passengers: Intent to board		
(a) Possession of dangerous or deadly weapon (including stun guns, mace, etc., but excluding firearms and incendiary/explosives) that would be accessible in flight in air transportation:		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area or aboard aircraft with no aggravating circumstances		

Violation	Sanction per Violation	License and Certificate Action
iv. In sterile area or aboard aircraft with aggravating circumstances		
(b) Possession of firearm that would be accessible in flight in air transportation with firearm unloaded, without accessible ammunition:		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area or aboard aircraft with no aggravating circumstances		
iv. In sterile area or aboard aircraft with aggravating circumstances		
(c) Possession of firearm that would be accessible in flight in air transportation with firearm loaded, or with accessible ammunition:		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area or aboard aircraft with no aggravating circumstances		
iv. In sterile area or aboard aircraft with aggravating circumstances		
(d) Artful concealment of dangerous or deadly weapon (including stun guns, but excluding firearms and incendiary/explosives) at screening point, in sterile area, or aboard aircraft	criminal referral	
(e) Possession of incendiary/explosive at screening point, in sterile area, or aboard aircraft that would be accessible in flight in air transportation	criminal referral	
(f) Artful concealment of firearm or incendiary/explosive at screening point, in sterile area, or aboard aircraft	criminal referral	
4. Other acts		
(a) Entering sterile area after failing to submit to screening – non-aggravated		
(b) Entering sterile area after failing to submit to screening – aggravated		
(c) Imparting or conveying false information concerning an attempt to do an act that		

Violation	Sanction per Violation	License and Certificate Action
would be a crime prohibited by Section 702 of the Civil Aviation Safety Law		
(d) Threatening overt act or other intent to use or dangerously display firearm, incendiary/explosive, or other deadly or dangerous weapon (including stun gun)	criminal referral	
(e)		
5. Unruly passengers		
(a) Interference with crew member		
(b) Physical assault or threat to physically assault a flight or cabin crew member		
(c) Physical assault or threat to physically assault an individual other than a crew member		
(d) Acting in a manner that poses imminent threat to safety of aircraft or other individuals on aircraft		
(e) Smoking while “No Smoking” sign is lighted		
(f) Smoking in aircraft lavatory		
(g) Tampering with smoke detector		
(h) Failure to fasten seat belt while seat belt sign is lighted		
(i) Failure to occupy an approved seat or berth with a safety belt and, if installed, shoulder harness properly secured during movement on the surface, take-off, or landing		
(j) Operating a portable electronic device		
(k) Drinking alcoholic beverages not served by operator		
6. Special emphasis enforcement – individuals aiming laser beam at aircraft		
(a) Single, first-time, inadvertent, or non-deliberate violation by individual	;	
(b) Deliberate violation by an individual not holding an airman certificate		
(c) Deliberate violation by an airman certificate holder, regardless of whether the airman was exercising the privileges of the airman certificate at the time of the violation		Revocation (in addition to civil penalty)

Violation	Sanction per Violation	License and Certificate Action
7. Falsification		
(a) Intentionally false or fraudulent entry on, reproduction of, or alteration of an application, a licence, a certificate, a rating, or an approval		Revocation of authorised certificates
8. Miscellaneous		
(a) Carriage of illegal substances on aircraft		Revocation
(b) Conducting operation without required operating certificate		60- to 120-day suspension
(c) Misuse of an aerodrome-approved identification medium		
(d) Making an incorrect statement on an application for a personnel licence or medical certificate		Indefinite suspension (pending correction of application and determination of qualification) or revocation of personnel licence or medical certificate
(e) Refusal to produce personnel licence and/or associated medical certificate		30-day suspension, and until produced to revocation
V. AIRCRAFT OWNER/OPERATOR REGISTRATION VIOLATIONS		
(a) Operation of an unregistered aircraft		30- to 90-day suspension of pilot licence
(b) Operation of an aircraft without an effective and valid certificate of aircraft registration on board		30- to 90-day suspension of pilot certificate
(c) Failure to return an ineffective or invalid certificate of aircraft registration		Revocation of certificate of aircraft registration
(d) Use of registered aircraft to carry out or facilitate unlawful activities		Mandatory revocation of certificate of aircraft registration and of all other certificates of aircraft registration issued to its owner and revocation of all personnel licences and the medical certificate

Violation	Sanction per Violation	License and Certificate Action
VI. ALL INDIVIDUALS AND ENTITIES		
(a) Failure to surrender suspended or revoked licence, authorisation, or other approval, or medical certificate		

IS 1.6.1.2 SAFETY MANAGEMENT SYSTEM – SERVICE PROVIDERS

Note 1: ICAO Doc 9859, Safety Management Manual (SMM)*, contains guidance on the implementation of the framework for an SMS.*

Note 2: The service provider's interfaces with other organisations can make a significant contribution to the safety of its products or services. ICAO Doc 9859 contains guidance on interface management as it relates to SMS.

Note 3: As relating to service providers in this context, "accountability" refers to an obligation that may not be delegated, and "responsibilities" refers to functions and activities that may be delegated.

(a) The following specifies the framework for the implementation and maintenance of an SMS by a service provider.

(1) Safety policy and objectives:

(i) Management commitment

(A) The service provider shall define its safety policy in accordance with international and national requirements. The safety policy shall:

1. Reflect organisational commitment regarding safety, including the promotion of a positive safety culture;
2. Include a clear statement about the provision of the necessary resources for the implementation of the safety policy;
3. Include safety reporting procedures;
4. Clearly indicate which types of behaviours are unacceptable related to the service provider's aviation activities and shall include the circumstances under which disciplinary action would not apply;
5. Be signed by the accountable manager of the organisation;
6. Be communicated, with visible endorsement, throughout the organisation; and
7. Be periodically reviewed to ensure it remains relevant and appropriate to the service provider.

(B) Taking due account of its safety policy, the service provider shall define safety objectives. The safety objectives shall:

1. Form the basis for safety performance monitoring and measurement as required by paragraph (a)(3)(i)(B) of this IS;

2. Reflect the service provider's commitment to maintain or continuously improve the overall effectiveness of the SMS;

3. Be communicated throughout the organisation; and

4. Be periodically reviewed to ensure they remain relevant and appropriate to the service provider.

Note: Guidance on setting safety objectives is provided in ICAO Doc 9859.

(ii) Safety accountability and responsibilities

(A) The service provider shall:

1. Identify the accountable manager who, irrespective of other functions, is accountable, on behalf of the organisation, for the implementation and maintenance of an effective SMS;

2. Clearly define lines of safety accountability throughout the organisation, including a direct accountability for safety on the part of senior management;

3. Identify the responsibilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the organisation;

4. Document and communicate safety accountability, responsibilities, and authorities throughout the organisation; and

5. Define the levels of management with authority to make decisions regarding safety risk tolerability.

(iii) Appointment of key safety personnel

(A) The service provider shall appoint a safety manager who is responsible for the implementation and maintenance of the SMS.

Note: Depending on the size of the service provider and the complexity of its aviation products or services, the responsibilities for the implementation and maintenance of the SMS may be assigned to one or more persons, fulfilling the role of safety manager, as their sole function or combined with other duties, provided this does not result in any conflicts of interest.

(iv) Coordination of emergency response planning

(A) The service provider required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies shall ensure that the emergency response plan is properly coordinated with the emergency response plans of those organisations it must interface with during the provision of its products or services.

(v) SMS documentation

(A) The service provider shall develop and maintain an SMS Manual that describes the service provider's:

1. Safety policy and objectives;

2. SMS requirements;

3. SMS processes and procedures; and

4. Accountability, responsibilities, and authorities for SMS processes and procedures.

(B) The service provider shall develop and maintain SMS operational records as part of its SMS documentation.

Note: Depending on the size of the service provider and the complexity of its aviation products or services, the SMS Manual and SMS operational records may be in the form of stand-alone documents or may be integrated with other organisational documents (or documentation) maintained by the service provider.

(2) Safety risk management:

(i) Hazard identification

(A) The service provider shall develop and maintain a process to identify hazards associated with its aviation products or services.

(B) The service provider shall base its hazard identification on a combination of reactive and proactive methods.

(ii) Safety risk assessment and mitigation

(A) The service provider shall develop and maintain a process that ensures analysis, assessment, and control of the safety risks associated with identified hazards.

Note: The process may include predictive methods of safety data analysis.

(3) Safety assurance:

(i) Safety performance monitoring and measurement

(A) The service provider shall develop and maintain the means to verify the safety performance of the organisation and to validate the effectiveness of safety risk controls.

Note: An internal audit process is one means to monitor compliance with safety regulations, the foundation upon which an SMS is built, and assess the effectiveness of these safety risk controls and the SMS. Guidance on the scope of the internal audit process is contained in ICAO Doc 9859.

(B) The service provider shall verify the safety performance of the organisation in reference to the safety performance indicators and safety performance targets of the SMS in support of the organisation's safety objectives.

(ii) The management of change

(A) The service provider shall develop and maintain a process to identify changes that may affect the level of safety risk associated with its aviation products or services and to identify and manage the safety risks that may arise from those changes.

(iii) Continuous improvement of the SMS

(A) The service provider shall monitor and assess its SMS processes to maintain or continuously improve the overall effectiveness of the SMS.

(4) Safety promotion:

(i) Training and education

(A) The service provider shall develop and maintain a safety training programme that ensures that all personnel are trained and competent to perform their SMS duties.

(B) The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.

(ii) Safety communication

(A) The service provider shall develop and maintain a formal means for safety communication that:

1. Ensures all personnel are aware of the SMS to a degree commensurate with their positions;

2. Conveys safety-critical information;

3. Explains why particular actions are taken to improve safety; and

4. Explains why safety procedures are introduced or changed.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 2 – PERSONNEL LICENSING

MAY 2024

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PART 2 PERSONNEL LICENSING

2.1 GENERAL

2.1.1 APPLICABILITY

(a) Part 2 prescribes the:

(1) Requirements for the issue, renewal, reissue, validation, and conversion of aviation personnel licences, ratings, authorisations, endorsements, certificates, and designations;

(2) Conditions under which those licences, ratings, authorisations, endorsements, certificates, and designations are necessary; and

(3) Privileges and limitations granted to the holders of those licences, ratings, authorisations, endorsements, certificates, and designations.

2.1.2 DEFINITIONS

(a) Definitions concerning the Subparts other than 2.2 and 2.3, are contained in Part 1.

(b) For the purposes of Subparts 2.2 and 2.3, the following definitions shall apply:

(1) **Angular operation.** An instrument approach operation in which the maximum tolerable error/deviation from the planned track is expressed in terms of deflection of the needles on the Course Deviation Indicator (CDI) or equivalent display in the cockpit.

(2) **Linear operation.** An instrument approach operation in which the maximum tolerable error/deviation from the planned track is expressed in units of length, for instance nautical miles, for cross-track lateral deviation.

(3) **Performance-Based Navigation (PBN).** Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

(4) **RNP APCH.** A PBN specification used for instrument approach operations.

(5) **RNP APCH operation down to LNAV minima.** A 2D instrument approach operation for which the lateral guidance is based on GNSS positioning.

(6) **RNP APCH operation down to LNAV/VNAV minima.** A 3D instrument approach operation for which the lateral guidance is based on GNSS positioning and the vertical guidance is provided either by the Baro VNAV function or by the GNSS positioning including SBAS.

(7) **RNP APCH operation down to LPV minima.** A 3D instrument approach operation for which both lateral and vertical guidance are based on GNSS positioning including SBAS.

(8) **RNP AR APCH.** means a navigation specification used for instrument approach operations requiring a specific approval.

(9) **Three-dimensional (3D) instrument approach operation.** means an instrument approach operation using both lateral and vertical navigation guidance.

(10) **Two-dimensional (2D) instrument approach operation.** means an instrument approach operation using lateral navigation guidance only.

2.1.3 ABBREVIATIONS

(a) The following abbreviations are used in Part 2:

(4) **2D** – Two-dimensional

(5) **3D** – Three-dimensional

(6) **A** – Aeroplane.

(7) **AFIS** – Aerodrome Flight Information Service

(8) **AGI –** advanced ground instructor

(9) **AIP** – Aeronautical Information Publication

(10) **AME** – aviation medical examiner

(11) **AMO** – approved maintenance organisation

(12) **AMT** – aviation maintenance technician

(13) **APCH** – approach

(14) **AR** – Authorization Required

(15) **ARS** – aviation repair specialist

(16) **AS** – airship

(17) **ASO** – aeronautical station operator

(18) **ATC** – air traffic control

(19) **ATCO** – air traffic controller (*Note: Abbreviation ICAO A446*)

(20) **ATO** – approved training organisation

(21) **ATPE** – airline transport pilot examiner

(22) **ATPL** – airline transport pilot licence

(23) **ATS** – air traffic service

(24) **BGI** – basic ground instructor

(25) **C2** – command and control

(26) **C2 Link** – command and control link

(27) **CAME** – Civil Aviation Medical Examiner

(28) **CAT II** – Category II

(29) **CAT III** – Category III

(30) **CE** – commercial pilot examiner

(31) **CIE** – International Commission on Illumination

(32) **CIRE** – commercial instrument rating examiner

(33) **CP** – co-pilot

(34) **CPL** – commercial pilot licence

(35) **CRM** – crew resource management

(36) **DCA** – Director of Civil Aviation

(37) **DFEE** – designated flight engineer examiner

(38) **DFNE** – designated flight navigator examiner

(39) **DFOOE** – designated flight operations officer examiner

(40) **DH** – decision height

(41) **DME** – designated mechanic examiner

(42) **DPE** – designated pilot examiner

(43) **DPRE** – designated parachute rigger examiner

(44) **FE** – flight engineer

(45) **FEI** – flight engineer instructor

(46) **FI** – flight instructor

(47) **FN** – flight navigator

(48) **FOO** – flight operations officer

(49) **FSTD** – flight simulation training device

(50) **GI** – ground instructor

(51) **GNSS** – Global Navigation Satellite System

(52) **H** – Helicopter

(53) **HIV** – human immunodeficiency virus

(54) **IA** – inspection authorisation

(55) **ICAO** – International Civil Aviation Organization

(56) **IFR** – instrument flight rules

(57) **IGI** – instrument ground instructor

(58) **ILS** – instrument landing system

(59) **IMC –** instrument meteorological conditions

(60) **IR** – instrument rating

(61) **IS** – Implementing Standard

(62) **ISO** – International Organization for Standardization

(63) **LNAV** – Lateral Navigation

(64) **LPV** – Localizer Performance with Vertical Guidance

(65) **MCM** – Maintenance Control Manual

(66) **MEL** – minimum equipment list

(67) **MPA** – multi-pilot aeroplane

(68) **MPH** – multi-pilot helicopter

(69) **MPL** – multi-crew pilot licence

(70) **MSL** – mean sea level

(71) **NDT** – non-destructive testing

(72) **NOTAM** – Notice to Airmen

(73) **OJTI** – on-the-job training instructor

(74) **OM –** Operations Manual

(75) **PIC** – pilot-in-command

(76) **PL** – powered-lift

(77) **PPE** – private pilot examiner

(78) **PPL** – private pilot licence

(79) **PR** – parachute rigger

(80) **RNP** – required navigation performance

(81) **RP** – remote pilot

(82) **RPA** – remotely piloted aircraft

(83) **RPAS** – remotely piloted aircraft system

(84) **RPPL** – Restricted Private Pilot Licence

(85) **RPL** – remote pilot licence

(86) **RPS** – remote pilot station

(87) **RT** – radiotelephony

(88) **RVR** – runway visual range

(89) **SBAS** – Satellite-Based Augmentation System

(90) **SOP** – standard operating procedure

(91) **SPA** – single-pilot aeroplane

(92) **SPH** – single-pilot helicopter

(93) **SSP** – State safety programme

(94) **STS** – skill test standard

(95) **TCA** – Terminal Control Area

(96) **TCL** – Terminal Control

(97) **VFR** – visual flight rules

(98) **VMC** – visual meteorological conditions

(99) **VNAV** – vertical navigation

(100) **ZFTT** – Zero Flight Time Training

2.2 GENERAL REQUIREMENTS FOR LICENCES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, CERTIFICATES, AND DESIGNATIONS

2.2.1 ISSUE, RENEWAL, AND REISSUE OF LICENCES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, CERTIFICATES, AND DESIGNATIONS

2.2.1.1 LICENCES

(1) The Authority may issue the following licences under Part 2 to an applicant who satisfactorily accomplishes the requirements of Part 2 for the licence sought:

(2) Pilot licence:

(i) RPPL – aeroplane, helicopter, airship, or powered-lift categories;

(ii) PPL – aeroplane, helicopter, airship, or powered-lift categories;

(iii) CPL – aeroplane, helicopter, airship, or powered-lift categories;

(iv) MPL – aeroplane;

(v) ATPL – aeroplane, helicopter, or powered-lift categories;

(vi) RPL – aeroplane, rotorcraft, airship, or powered-lift, categories;

Note: The requirements for the RPL and ratings can be found in 2.3.11 of Part 2.

(3) Flight Operations Officer (FOO) licence;

(4) Flight Instructor (FI) licence;

(5) Ground Instructor (GI) licence;

(6) Aircraft Maintenance Technician (AMT) licence;

(7) Air Traffic Controller (ATCO) licence;

(8) Parachute Rigger (PR) licence.

2.2.1.2 RATINGS

(a) The Authority may issue the following ratings to place on a pilot licence or flight instructor licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Category ratings in the following aircraft:

(i) Aeroplane

(ii) Helicopter

(iii) Airship

(iv) Powered-lift

(v) RPAS

(2) Class ratings in the following aircraft:

(i) Single-engine land – aeroplane

(ii) Single-engine sea – aeroplane

(iii) Multi-engine land – aeroplane

(iv) Multi-engine sea – aeroplane

Note: A class rating may be issued for those helicopters certificated for single-pilot operations and which have comparable handling, performance, and other characteristics.

(v) RPAS

(vi) Any rating considered necessary by the Authority

Note: A class rating or endorsement for high-performance aeroplanes requires additional knowledge, if the applicant has not completed the ATPL(A) knowledge requirementsType ratings in the following aircraft:

(3) Type-ratings in the following aircraft:

(i) Each type of aircraft certificated for operation with a minimum crew of at least two pilots

(ii) Each type of helicopter certificated for single-pilot operation except where a class rating has been established under paragraph 2.2.1.2(a)(2)(v) of this subsection

(iii) Any aircraft considered necessary by the Authority

Note: A type rating for high-performance aeroplanes requires additional knowledge, if the applicant has not completed the ATPL(A) knowledge requirements.

(4) Instrument ratings in the following aircraft:

(i) Instrument – aeroplane

(ii) Instrument – helicopter

(iii) Instrument – powered-lift

Note: The IR is included in CPL – airship, ATPL – aeroplane, and powered-lift.

(5) Flight Instructor ratings:

(i) The appropriate aircraft category, class, instrument, and/or type rating according to the instruction to be taught.

(6) Radiotelephone operator rating.

Note: Regarding the Radiotelephone operator rating:

(i) *Where the knowledge and skill of an applicant have been established as satisfactory in respect of the certification requirements for the radiotelephone operator's restricted certificate specified in the general radio regulations annexed to the International Telecommunication Convention and the applicant has met the requirements that are pertinent to the operation of the radiotelephone on board an aircraft, the Authority may endorse a licence already held by the applicant or issue a separate licence as appropriate.*

(ii) *Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all pilot aeroplane and helicopter licences.*

(b) The Authority may issue the following ratings to place on a Ground Instructor licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Basic

(2) Advanced

(3) Instrument

(c) The Authority may issue the following ratings to place on a Flight Engineer's licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Reciprocating engine powered

(2) Turbo propeller powered

(3) Turbojet powered

(d) The Authority may issue AMT license with categories and aircraft group ratings when an applicant satisfactorily accomplishes the requirements of Part 2 for the category sought:

(1) AMT license categories are defined in this Part under Paragraph 2.6.1.2;

(2) AMT license aircraft group ratings are defined in this Part under Paragraph 2.6.1.3.

(e) The Authority may issue the following ratings to place on an ATCO licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Aerodrome control rating

(2) Approach control rating

(3) Approach radar control rating

(4) Approach precision Surveillance control rating

(5) Area control rating

(6) Area Surveillance control rating

(f) The Authority may issue the following ratings to place on a Parachute Rigger's licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Seat

(2) Back

(3) Chest

(4) Lap

2.2.1.3 AUTHORISATIONS

(a) The Authority may issue the following authorisations when an applicant satisfactorily accomplishes the requirements of Part 2 for the authorisation sought:

(1) Student pilot authorisation;

(2) Instructor Authorisation (IA) for training in a Flight Simulation Training Device (FSTD);

Note: If the State prefers, a student pilot licence or certificate may be issued.

(b) The Authority may issue the following authorisations to place on a pilot licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the authorisation sought:

(1) CAT II pilot authorisation;

(2) CAT III pilot authorisation;

(3) PBN pilot authorization.

2.2.1.4 CERTIFICATES

(a) The Authority may issue the following medical certificates when an applicant satisfactorily accomplishes the requirements of Part 2 for the medical certificate sought:

(1) Medical certificate, Class 1, for CPL, ATPL, FI licence, and DPE;

(2) Medical certificate, Class 2, for student pilot authorisation, RPPL, PPL, FE licence, and FN licence;

(3) Medical certificate, Class 3, for ATCO licence and RPL.

(g) The Authority may issue validation certificates to pilots and FEs holding a licence from another Contracting State.

(h) The Authority may issue certificates of designation to representatives of the Director General Civil Aviation as identified in 2.2.1.6 of Part 2.

2.2.1.5 ENDORSEMENTS

(a) An authorised instructor may issue the following endorsements to a pilot who satisfactorily accomplishes the required training in Part 2:

(1) Complex aeroplane endorsement;

(2) High-performance aeroplane endorsement;

(3) High-altitude aircraft endorsement;

(4) Night vision goggles endorsement.

(b) An authorised instructor may issue the following endorsements to an ATCO who satisfactorily accomplishes the required training in Part 2:

(1) Tower Control endorsement for Aerodrome Control Rating;

(2) Ground Movement Control endorsement for Aerodrome Control rating;

(3) Radar endorsement for Approach Control Surveillance rating and Area Control Surveillance rating;

(4) ADS endorsement for Approach Control Surveillance rating and Area Control Surveillance rating;

(5) TCL endorsement for Approach Control Surveillance rating and Area Control Surveillance rating.

2.2.1.6 DESIGNATION OF REPRESENTATIVES OF THE DIRECTOR GENERAL OF CIVIL AVIATION

(a) The Authority may issue the following designations to private persons to act on behalf of the DGCA, as specified in this Part:

(1) CAME;

(2) DPE;

(3) DFEE;

(4) DFNE;

(5) DFOOE;

(6) DME;

(7) DPRE; or

(8) Other designees as may be determined by the Authority.

2.2.1.7 VALIDITY OF LICENCES, RATINGS, AUTHORISATIONS, CERTIFICATES, AND DESIGNATIONS

(a) The validity period of the licences, ratings, authorisations, designations, certificates of validation, and medical certificates and the renewal and reissue conditions are indicated in the applicable requirements of Part 2.

(b) The issue, renewal, and reissue of licences, ratings, authorisations, designations, and certificates will be performed by the Authority.

(1) Renewal of ratings and CAT II, CAT III or PBN pilot authorisations may be performed by the examiner, when delegated by the Authority.

(2) Renewal of medical certificates may be performed by the CAME, when delegated by Authority.

(c) Application for the issue, renewal, and reissue of licences, ratings, authorisations, designations, and certificates by the Authority shall be done by submitting to the Authority a properly completed form, which can be obtained from the Authority.

(d) FOR RENEWAL:

(1) Application shall be made to the Authority at least 14 days before the expiration date.

(2) The licence, rating, authorisation, designation, or certificate, including any required medical certificate, shall be valid.

(e) PRIVILEGES:

(1) The holder of a licence, rating, certificate, authorisation, or designation shall not exercise privileges other than those granted by the licence, certificate, authorisation, or designation.

(2) The privileges granted by a licence, or by related ratings, may not be exercised unless the holder maintains competency and meets the requirements of Part 2 for recent experience.

(f) MAINTENANCE OF COMPETENCY.

(1) Maintenance of competency shall be indicated in the flight crew members personal licence or record (e.g., logbook).

(2) The maintenance of competency of flight crew and remote flight crew members engaged in commercial air transport operations shall be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Part 8 of these regulations.

(3) The maintenance of competency shall be satisfactorily recorded in the operator's records or

in the flight crew or remote flight crew member's personal logbook or licence.

(4) A flight crew or remote flight crew member shall, to the extent deemed feasible by the State of Registry, or by the Authority of the State of the Operator, respectively, demonstrate his or her continuing competency in FSTDs approved by that State.

(g) MEDICAL FITNESS. An applicant for the following licences, authorisations, and designations shall hold a current and appropriate medical certificate issued under the requirements of Part 2 in order for that applicant's licence, authorisation, or designation to be valid:

(1) Student pilot authorisation

(2) Pilot licence

(3) FE licence

(4) FN licence

(5) FI licence

(6) ATCO licence

(7) DPE

(8) DFEE

(9) DFNE

2.2.2 LANGUAGE PROFICIENCY

(a) Pilots, FEs, FNs, ATCOs, ASOs, and, as of 01 January 2024, RPs, shall demonstrate the ability to speak and understand RT communications in the language of Curaçao and in the English language.

(b) The airmen identified in paragraph 2.2.2(a) of this subsection shall demonstrate the ability to speak and understand RT communications in the language of Curaçao and in the English language to at least the Operational Level (Level 4) with the aim to speak at the Expert Level (Level 6) as specified in the language proficiency requirements in IS 2.2.2.

(c) The language proficiency of the airmen identified in paragraph 2.2.2(a) of this subsection shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level as follows:

(1) Those demonstrating language proficiency at the Operational Level (Level 4) shall be evaluated at intervals not greater than 3 years;

(2) Those demonstrating language proficiency at the Extended Level (Level 5) shall be evaluated at intervals not greater than 6 years; and

(3) Those demonstrating language proficiency at the Expert Level (Level 6) shall be exempt from further language evaluation.

(d) Detailed requirements for language proficiency are contained in IS 2.2.2.

2.2.3 CREDIT FOR MILITARY COMPETENCY

2.2.3.1 CREDIT FOR MILITARY PILOTS

(a) PILOT LICENCES. Except for a rated military pilot or former rated military pilot who has been removed from flying status for lack of proficiency or because of disciplinary action involving aircraft operations, a rated military pilot or former rated military pilot who meets the requirements of IS 2.2.3.1 may apply, on the basis of that pilot's military training, for:

(1) CPL, or ATPL;

(2) A rating in the category and class of aircraft for which that military pilot is qualified;

(3) An IR with the appropriate category rating for which that military pilot is qualified; and

(4) A type rating, if appropriate.

(b) The testing required for a military pilot seeking a licence or rating is as follows:

(1) If the applicant has been on active flight status within the 12 months prior to application for a licence or rating, the applicant shall pass a knowledge test on:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT.

(2) If the applicant has not been on active flight status within the 12 months prior to application for a licence or rating, the applicant shall pass both a knowledge and skill test.

2.2.3.2 CREDIT FOR MILITARY PARACHUTE RIGGERS

(a) The Authority will grant to an applicant for a senior Parachute Rigger (PR) licence that licence if the applicant passes a knowledge test on the regulations of 2.10 of this Part and presents satisfactory documentary evidence that the applicant:

(1) Is a member or civilian employee of an armed force of the Kingdom of the Netherlands is a civilian employee of a regular armed force of a foreign country, or has, within the 12 months preceding his or her application, been honourably discharged or released from any status covered by this paragraph;

(2) Is serving, or has served within the 12 months preceding application, as a PR for such an armed force; and

(3) Has the experience required by 2.10.1.4 of this Part.

2.2.4 VALIDATION AND CONVERSION OF FOREIGN LICENCES, RATINGS, AUTHORISATIONS, AND CERTIFICATES

Note: Validation and conversion of RPAS licences is contained in 2.3.11.3 of this Part.

2.2.4.1 VALIDATION OF FLIGHT CREW LICENCES

(a) GENERAL REQUIREMENTS FOR VALIDATION.

(1) A person who holds a current and valid pilot licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for validation of such licence for use on aircraft registered in Curaçao.

(2) The applicant for the validation certificate shall present to the Authority the foreign licence and the record (e.g., logbook) of evidence of required experience.

(3) The applicant for the validation certificate shall present to the Authority evidence that the applicant holds either a current medical certificate issued under this Part or a current medical certificate issued by the Contracting State that issued the applicant's licence.

(i) The Authority may allow the applicant to use the foreign medical certificate with the validation certificate, provided that the medical certification requirements on which the foreign medical certificate was issued meet the requirements of this Part, relevant to the licence held.

(4) The applicant for the validation certificate shall present to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao, as specified in 2.2.2 of this Part or shall demonstrate to the Authority the language proficiency skills as specified in 2.2.2 of this Part.

(i) The validation shall be limited for use on Curaçao registrered aircraft for use within Curaçao if the pilot is not proficient in the English language, as required by 2.2.2 of this Part.

(5) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence prior to issuing the validation.

(6) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.

(7) The Authority may issue a validation certificate which will be valid for 1 year, provided the foreign licence, ratings, or authorisations and the medical certificate remain valid.

(b) Validation certificate with PPL privileges. In addition to the requirements of paragraph 2.2.4.1(a) of this subsection, the applicant for a validation certificate with PPL privileges shall have a foreign licence with at least PPL privileges.

(c) Validation certificate with PPL/IR, CPL, CPL/IR, MPL, ATPL, or FE privileges. In addition to the requirements in paragraph 2.2.4.1(a) of this subsection, the applicant for a validation certificate with PPL/IR, CPL, CPL/IR, MPL, ATPL, or FE privileges shall have a foreign licence with at least those privileges and shall meet the following requirements:

(1) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Curaçao's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT.

(2) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that the applicant wants to be validated relevant to the privileges of the licence held; and

(3) The applicant shall comply with the experience requirements set out in the table below:

Licence	Experience	Validation Privileges
ATPL(A)	>1500 hours as PIC in multi-pilot* certificated aeroplanes	Commercial air transport in multi pilot aeroplanes as PIC
ATPL(PL)	>1500 hours as PIC in multi-pilot certificated powered-lift or >1500 hours in multi-pilot operations in a combination of powered-lift, aeroplane, and helicopter aircraft, as acceptable to the Authority	Commercial air transport in multi-pilot powered-lift as PIC
ATPL(H)	>1000 hours as PIC in multi pilot helicopters	Commercial air transport in multi pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	>500 hours as PIC or CP in multi pilot aeroplanes	Commercial air transport in multi pilot aeroplanes as CP
ATPL(PL) or CPL(PL)/IR	>500 hours as PIC or CP in multi-pilot powered-lift	Commercial air transport in multi-pilot powered-lift as CP
ATPL(H) or CPL(H)/IR	>500 hours as PIC or CP in multi pilot helicopters	Commercial air transport in multi pilot helicopters as CP
CPL(A)/IR	>1000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single pilot aeroplanes as PIC
CPL(H)/IR	>1000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single pilot helicopter as PIC
CPL(A)	>700 hours in aeroplanes other than gliders, including 200 hours in the activity role for which validation is sought, and	Activities in aeroplanes other than commercial air transport

Licence	Experience	Validation Privileges
	50 hours in that role in the last 12 months	
CPL(H)	>700 hours in helicopters, including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in helicopters other than commercial air transport
CPL(PL)	>700 hours in powered-lift (or combination of powered-lift, aeroplane, and helicopter, as acceptable to the Authority), including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in powered-lift other than commercial air transport
CPL(AS)	>250 hours as PIC in commercial air transport, including 50 hours in airships within the last 12 months	Commercial air transport in airships as PIC under IFR and VFR conditions
MPL(A)	>250 as co-pilot of turbine-powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots operated in commercial air transport within the past 12 months	Commercial air transport in turbine - powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots as co-pilot
PPL(A)/IR	>100 hours PIC instrument flight time	Private flights under IFR
PPL(H)/IR	>100 hours PIC instrument flight time	
PPL(PL)/IR	>100 hours PIC instrument flight time	Private flights under IFR
FE	>1500 hours as FE on aeroplanes in commercial air transport	Commercial air transport in aeroplanes as FE
FE	>1000 hours as FE on aeroplanes in other than commercial air transport	Other than commercial air transport in aeroplanes as FE

**Note 1: The term "multi-pilot" is used to indicate experience in an aircraft required to be operated with a CP.*

2.2.4.2 CONVERSION OF FLIGHT CREW LICENCES

(a) Conversion of a foreign pilot licence for issuance of a PPL by Curaçao.

(1) The holder of a current and valid pilot licence with at least PPL privileges, issued by another Contracting State in accordance with ICAO Annex 1, may apply for a conversion and be issued a PPL for use on aircraft registered in Curaçao, provided the following requirements are met.

(2) The holder shall:

(i) Present to the Authority the foreign licence, the evidence of experience required by presenting the record (e.g., logbook), and a current medical certificate;

(ii) Present to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao as specified in 2.2.2 of Part 2, or shall demonstrate to the Authority the language proficiency skills as specified in 2.2.2 of this Part;

(iii) Obtain a Class 2 medical certificate issued under this Part;

(iv) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(A) Air law;

(B) Meteorology;

(C) Operational procedures; and

(D) RT; and

(v) Complete a PPL skill test.

(3) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to converting the licence.

(b) Conversion of PPLs/IR, CPLs, CPLs/IR, MPLs, ATPLs, and FE licences, which have been validated in accordance with 2.2.4.1 of this Part.

(1) The holder of a current and valid foreign CPL, CPL/IR, MPL, ATPL, or FE licence, issued by another Contracting State in accordance with ICAO Annex 1, and an appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Curaçao provided the following requirements are met:

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1 of this Part;

(ii) The applicant has completed 200 flight hours in a Curaçao-registered aircraft or any foreign registered aircraft which is operated by an operator established in Curaçao exercising the privileges granted by the validation certificate;

(iii) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 200 flight hours by presenting the record (e.g., logbook); and

(iv) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.

(2) The holder of a current and valid foreign PPL/IR issued by another Contracting State, in accordance with ICAO Annex 1, and an appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Curaçao, provided the following requirements are met:

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1 of this Part;

(ii) The applicant has completed 75 flight hours in a Curaçao-registered aircraft in Curaçao exercising the privileges granted by the validation certificate;

(iii) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 75 flight hours by presenting the record (e.g., logbook); and

(iv) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.

(3) Ratings listed on a person's foreign pilot licence that have been validated in accordance with 2.2.4.1 of this Part may be placed on that person's converted licence.

2.2.4.3 VALIDATION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.1 and 2.2.4.2 of this Part, the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign licence and current medical certificate, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority is convinced that the licence has been issued on the basis of at least this Part;

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences and, if applicable, about keeping the licences and ratings current and valid; and

(4) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence, knowledge of Curaçao's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT.

(b) The applicant for the validation certificate shall present to the Authority the:

(1) Foreign licence and evidence of the currency of the licence by presenting the record (e.g., logbook);

(2) Medical certificate relevant to the licence to be validated, provided the foreign medical certificate meets the requirements of this Part; and

(3) Evidence of language proficiency in English and, if required, in the language of Curaçao as specified in 2.2.2 of this Part, or shall demonstrate to the Authority the language skills as specified in 2.2.2 of this Part.

(c) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the validation.

(d) The Authority may issue a validation certificate which will be valid for 1 year, provided the foreign licence, ratings, authorisations, and medical certificate remain valid.

(e) Procedures for the validation of flight crew licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.3.

2.2.4.4 CONVERSION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.1 and 2.2.4.2 of this Part the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority is convinced that the licence has been issued on the basis of at least this Part; and

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences.

Note: The registry of agreements with their associated list of Contracting States can be found in ICAO's Database of Aeronautical Agreements and Arrangements.

(b) The applicant for the conversion shall present to the Authority the:

(1) Foreign licence and evidence of the currency of the licence by presenting the record (e.g., logbook);

(2) Medical certificate relevant to the licence if the medical certificate is to be converted, or the medical certificate issued under this Part relevant to the licence sought; and

(3) Evidence of language proficiency in English and, if required, in the language of Curaçao as specified in 2.2.2 of this Part or shall demonstrate to the Authority the language skills as specified in 2.2.2 of this Part.

(c) The applicant shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(1) Air law;

(2) Meteorology;

(3) Operational procedures; and

(4) RT.

(d) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the licence.

(e) Procedures for the conversion of flight crew licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.4.

2.2.4.5 VALIDATION IN CASE OF LEASED, CHARTERED, OR INTERCHANGED AIRCRAFT

(a) The requirements stated in 2.2.4.1 of this Part shall not apply where aircraft registered in Curaçao are leased to, chartered by, or interchanged by an operator of another Contracting State, provided that during the term of the lease the State of the Operator has accepted responsibility for the technical and/or operational supervision of the aircraft in accordance with Article 83 *bis* of the Convention on International Civil Aviation.

(b) The licences of the flight crew of the other Contracting State may be validated by the Authority, provided that the privileges of the flight crew licence validation are restricted for use during the lease, charter, or interchange period only on nominated aircraft in specified operations not involving a Curaçao operator, directly or indirectly through a wet lease or other commercial arrangement.

(c) The Authority will verify the authenticity of the licence, ratings, authorisations, including the English language proficiency endorsement of at least Level 4, and medical certificate with the State of Licence Issue prior to issuing the validation.

2.2.4.6 TEMPORARY VALIDATION OF NON-CURACAO'S PILOT LICENCES HELD BY MANUFACTURER PILOTS

(a) In circumstances where validation of a non-Curaçao pilot licence is needed to fulfil specific tasks of finite duration, the Authority may issue a temporary validation of such a licence for those tasks as described in this paragraph.

(b) Notwithstanding the requirements contained in 2.2.4.1, 2.2.4.2, 2.2.4.3, or 2.2.4.4 of this Part, the Authority may temporarily validate a licence issued by another Contracting State in accordance with the provisions of ICAO Annex 1, including an instructor rating or examiner authorisation issued by that State, provided that the holder of the licence shall:

(1) Possess the appropriate licence, medical certificate, type ratings, and qualifications, to include instructor or examiner qualifications, valid in the State of Licence Issue for the duties proposed;

(2) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Curaçao's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT;

(3) Provide evidence of language proficiency in the language of English and, if required, in the language of Curaçao as specified in 2.2.2 of this Part or shall demonstrate to the Authority the language skills as specified in 2.2.2 of this Part;

(4) Be employed by an aircraft manufacturer or ATO located outside Curaçao and performing training on behalf of an aircraft manufacturer; and

(5) Be limited to performing flight instruction and testing for initial issue of type ratings, the supervision of initial line flying by the pilots of an operator in Curaçao, delivery or ferry flights, initial line flying, flight demonstrations, or test flights.

(c) Whenever conducting or supervising line flying, the pilot shall also be required to meet the relevant requirements of Part 8 of these regulations.

(d) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the temporary validation.

(e) The duration of the temporary validation shall be 1 year.

2.2.4.7 VALIDATION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

(a) GENERAL REQUIREMENTS FOR VALIDATION.

(1) A person who holds a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the validation of such licence for use on aircraft registered in Curaçao provided the following requirements are met.

(i) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record (e.g., logbook).

(ii) The applicant for the validation certificate shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(2) The Authority will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the validation.

(3) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.

(4) The Authority may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, or authorisations remain valid.

(b) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of:

(1) Air law;

(2) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(3) AMOs and procedures.

(c) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that he or she wants to have validated, relevant to the privileges of the licence held.

(d) The applicant for the validation certificate shall have;

(1) A minimum of 4 years of AMT experience; or

(2) Has completed 4 years of experience as a mechanic working on a Curaçao-registered aircraft or any foreign registered aircraft which is operated by an operator established in Curaçao.

(e) Notwithstanding the requirements in 2.2.4.7(d) if an AMT has fewer than 4 years of experience, he or she must accumulate at least 2 years of experience as a mechanic working on a Curaçao-registered aircraft or any foreign registered aircraft which is operated by an operator established in Curaçao.

2.2.4.8 CONVERSION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

(a) GENERAL REQUIREMENTS FOR CONVERSION. A person who holds a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the conversion of such licence for use on aircraft registered in Curaçao provided the following requirements are met:

(1) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record (e.g., logbook).

(2) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(3) The applicant for the conversion shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(i) Air law;

(ii) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(iii) AMOs and procedures;

(4) The applicant for the conversion shall complete a skill test for the relevant licence and ratings that he or she wants to have converted, relevant to the privileges of the licence held; and

(5) The applicant for the conversion shall have a minimum of 4 years of AMT experience.

(b) The Authority will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the converted licence.

(c) The Authority will only convert ratings or authorisations on the foreign licence together with the conversion of a licence.

(d) Conversion of AMT licences that have been validated in accordance with 2.2.4.7 of this Part.

(1) The holder of a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with 2.2.4.7 of this Part and can show evidence of 12 months of performing maintenance on aircraft registered in Curaçao may convert that AMT licence with no further formality.

2.2.4.9 VALIDATION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.7 and 2.2.4.8 of Part 2, the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AMT, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority has determined that the licence has been issued on the basis of at least this Part;

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences and, if applicable, about keeping the licences and ratings current and valid;

(4) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Curaçao's:

(i) Air law;

(ii) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(iii) AMOs and procedures;

(5) The applicant for the validation certificate shall present to the Authority the:

(i) Foreign licence; and

(ii) Evidence of the currency of the licence by presenting the personal record (e.g., logbook).

(6) The applicant for the validation shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(b) The Authority will verify the authenticity of the licence and ratings with the State of Licence Issue prior to issuing the validation.

(c) The Authority may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, and authorisations remain valid.

(d) Procedures for the validation of AMT licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.9.

2.2.4.10 CONVERSION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.7 and 2.2.4.8 of this Part, the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority is convinced that the licence has been issued on the basis of at least Part 2; and

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences.

(4) The applicant for the conversion shall present to the Authority the: foreign licence and evidence of the currency of the licence by presenting the personnel record (e.g., logbook).

(b) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(c) The applicant for the conversion shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(1) Air law;

(2) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(3) AMOs and procedures.

(d) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the conversion.

(e) Procedures for the conversion of AMT licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.10.

2.2.4.11 AUTOMATIC VALIDATION OF LICENCES ISSUED BY CONTRACTING STATES WITH A FORMAL AGREEMENT UNDER COMMON LICENSING REGULATIONS

(a) Notwithstanding the requirements contained in 2.2.4.3 and 2.2.4.9 of this Part, the Authority may automatically validate licences issued by other Contracting States, provided that the Authority and the other Contracting States shall have:

(1) Adopted common licensing regulations that are compliant with ICAO Annex 1;

(2) Entered into a formal agreement recognising the automatic validation process;

(3) Established a surveillance system to ensure the continuing implementation of the common licensing regulations; and

(4) Registered the agreement with ICAO pursuant to Article 83 of the Convention on International Civil Aviation.

(b) The Authority, when issuing a licence, rating, or certificate under the requirements of paragraph 2.2.4.11(a) of this subsection, will:

(1) Endorse the licence, rating, or certificate to indicate that it is rendered valid through registered agreement with ICAO in accordance with paragraph 2.2.4.11(a)(4) of this subsection;

(2) Issue a numbered attachment to the licence, rating, or certificate with the information required by IS 2.2.4.11 or, until 31 December 2022 for licences issued prior to 09 November 2017, will use some other effective means of documentation of the information required by IS 2.2.4.11 to be carried on board the aircraft or accessible; and

(3) Issue an English translation of the attachment if the licence is in a language other than English.

Note: The registry of agreements with their associated list of Contracting States can be found in ICAO's

Database of Aeronautical Agreements and Arrangements.

2.2.5 TRAINING AND TESTING REQUIREMENTS

2.2.5.1 DOCUMENTATION OF TRAINING AND AERONAUTICAL EXPERIENCE

(a) Each person shall document and record the following in a manner acceptable to the Authority:

(1) The training and/or experience used to meet the requirements for a licence, rating, endorsement, and/or authorisation of this Part; and

(2) The experience required to show maintenance of recency of aeronautical experience according to the requirements of this Part.

2.2.5.2 TRAINING CONDUCTED IN AN ATO

(a) Approved training for aviation personnel licences shall be conducted within an ATO.

(b) The Authority may approve a training programme for a licence, rating, authorisation, or endorsement that allows an alternative means of compliance with the experience requirements prescribed in Part 2 when training is conducted within an ATO under special curricula approved by the Authority under Part 3 of these regulations.

(c) Prior to authorising an alternative means of compliance that permits an ATO to conduct training that does not meet the normal prescribed experience requirements, the Authority will ensure that the approved training programme provides a level of competency at least equal to that provided by the minimum experience requirements for personnel not receiving such approved special curricula.

(d) Part 3 of these regulations prescribes the requirements for certifying and administering ATOs for conducting approved training.

(e) Competency-based approved training for aircraft maintenance personnel shall be conducted within an ATO.

(f) Competency-based approved training for remote flight crew and RPAS maintenance personnel shall be conducted within an ATO.

(g) Competency-based approved training for flight operations officer/flight dispatcher personnel shall be conducted within an ATO.

2.2.5.3 USE OF FLIGHT SIMULATION TRAINING DEVICES

(a) Except as specified in paragraph 2.2.5.3(b) of this subsection, no airman may receive credit for use of any FSTD for satisfying any training, testing, or checking requirement of Part 2 unless that flight simulator or flight training device is approved by the Authority for:

(1) The training, testing, and checking for which it is used;

(2) Each particular manoeuvre, procedure, or crew member function performed; and

(3) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.

(b) The FSTD shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, and heading reference) as those of the aircraft used by the operator.

(c) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.

(d) Operators that have standard instruments shall use simulators that have standard instruments.

(e) Operators shall not conduct differences training or variant training on aircraft that have electronic glass displays with aircraft that have standard instruments.

(f) The Authority may approve a device other than an FSTD for specific purposes.

(g) The use of an FSTD for performing training, testing, and checking for which a flight crew member is to receive credit shall be approved by the Authority, which will ensure that the FSTD is appropriate to the task.

2.2.5.4 KNOWLEDGE AND SKILL TESTS AND CHECKS – TIME, PLACE, DESIGNATED PERSONS, AND FORMAT

(a) Knowledge and skill tests and checks prescribed by or under this Part shall be given at times, at places, and by persons authorised and designated by the Authority.

(b) The knowledge test shall be performed in written or computer format, except for the knowledge test for an instructor licence or an additional instructor rating within the same aircraft category, which may be performed orally.

(c) In addition to the written knowledge test, candidates may be questioned orally during the skill test, as appropriate.

2.2.5.5 KNOWLEDGE AND SKILL TESTS AND CHECKS – PREREQUISITES, PASSING GRADES, AND RETESTING AFTER FAILURE

(a) An applicant for a knowledge test or a skill test shall have received any required endorsement as specified in Part 2 for the applicable licence, rating, or authorisation to show that the applicant has met the training and/or experience requirements to take the knowledge or skill test.

Note: The endorsement requirements may differ between licences and will appear in each licence section in Part 2, as applicable.

(b) An applicant for a knowledge or skill test shall receive written authorisation from the Authority to take, or retake, the test.

(c) An applicant for a knowledge or skill test shall show proper identification at the time of application, in the form of a government-issued identification document that contains the applicant's:

(1) Photograph;

(2) Signature;

(3) Date of birth, which shows the applicant meets or will meet the age requirements of Part 2 for the licence sought before the expiration date of the airman knowledge test report; and

(4) Actual residential address, if different from the applicant's mailing address.

(d) The Authority will specify the minimum passing grades.

(e) An applicant shall, before attempting the skill test for a licence or rating:

(1) Have passed the required knowledge test within the 24-calendar-month period preceding the month the applicant successfully completes the skill test; or

(2) If an applicant for an ATPL, have passed the ATP knowledge test within a period of 7 years before successfully completing the ATP skill test, provided that the applicant is, and has been continuously, employed as a flight crew member by a certificate holder under Part 9 of these regulations at the time of the ATP skill test.

(f) When an applicant is required to provide an aircraft for a skill test, that aircraft shall:

(1) Be airworthy and certificated;

(2) Be capable of performing all areas of operation appropriate to the rating sought and shall have no operating limitations that prohibit its use in any of the areas of operation required for the skill test;

(3) Have no operating limitations that prohibit the tasks required for the skill test;

(4) Be of national, foreign, or military registry of the same category, class, and type, if applicable,

for the licence and/or rating for which the applicant is applying, with an appropriate letter of authorisation for aircraft use in a skill test if the applicant is not the owner of the foreign-registered or military aircraft;

(5) Have:

(i) Fully functioning dual controls;

(ii) At least two pilot stations with adequate visibility for each person to operate the aircraft safety; and

(iii) Flight deck and outside visibility adequate to evaluate the performance of the applicant when an additional jump seat is provided for the examiner.

(g) If the applicant is required to take a segmented skill test using an FSTD and an aircraft, the FSTD shall be approved by the Authority.

(h) RETESTING AFTER FAILURE OF A TEST.

(1) An applicant for a knowledge or skill test who fails that test may apply to retake the test only after the applicant has received:

(i) The necessary training from an authorised instructor who has determined that the applicant is proficient to pass the test; and

(ii) An endorsement from the authorised instructor who gave the applicant the additional training.

(2) An applicant for an FI licence with an aeroplane category rating, who has failed the skill test due to deficiencies in instructional proficiency on stall awareness, spin entry, spins, or spin recovery shall:

(i) Comply with the requirements of paragraph 2.2.5.5(f)(1) of this subsection before being retested;

(ii) Bring an aircraft to the retest that is of the appropriate aircraft category for the rating sought and is certified for spins; and

(iii) Demonstrate satisfactory instructional proficiency on stall awareness, spin entry, spins, and spin recovery to an examiner during the retest.

2.2.5.6 RELIANCE ON TRAINING AND TESTING IN ANOTHER CONTRACTING STATE

(a) The Authority may rely on the training and/or testing system administered by another Contracting State as the basis for its own approved training curriculum, including the administration of written and/or skill test requirements for airman licences, provided that the Authority has an agreement with the other Contracting State whose training and/or testing system is used.

(b) The applicant shall apply for and receive written approval from the Authority prior to receiving training and/or testing in a system administered by another Contracting State.

2.2.6 INSTRUCTOR REQUIREMENTS – GENERAL

(a) An applicant for an instructor licence and ratings or authorisations shall, in addition to specific requirements contained in Part 2, have received and logged training from an authorised instructor on the fundamentals of instructing and shall have passed a knowledge test on the following areas of instructing:

(1) Techniques of applied instruction;

(2) Assessment of student performance in those subjects in which ground instruction is given;

(3) The learning process;

(4) Elements of effective teaching;

(5) Student evaluation and testing, training philosophies;

(6) Training programme development;

(7) Lesson planning;

(8) Classroom instructional techniques;

(9) Use of training aids, including FSTDs as appropriate;

(10) Analysis and correction of student errors;

(11) Human performance relevant to flight instruction;

(12) Hazards involved in simulating system failures and malfunctions in the aircraft; and

(13) Principles of threat and error management.

(b) The following applicants do not need to comply with paragraph 2.2.6(a) of this subsection:

(1) The holder of an instructor licence or authorisation issued under Part 2 who has already passed the knowledge test in the areas of instructing;

(2) The holder of a current teacher's certificate issued by a national or local authority that authorises the person to teach at a secondary educational level or higher; or

(3) A person who provides evidence of an equivalent level of experience acceptable to the Authority.

2.2.7 DESIGNATED EXAMINERS

(a) The Authority may designate private individuals to act as representatives of the Director General of Civil Aviation in examining, inspecting, and testing persons and aircraft for the purpose of issuing airman and aircraft licences, ratings, and certificates.

(b) The specific requirements for each type of designated examiner are contained in the appropriate licensing section of this Part related to the licensing requirements of the persons to be examined.

(c) The Authority will issue each designated examiner a certificate of designated authority and a designee identification card specifying the kinds of designation for which the individual is qualified and the duration of the designation.

2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE

(a) The licence shall be issued:

(1) On first quality paper, plastic cards, or other suitable material as listed in ICAO Annex 1: 5.2; or

(2) As an electronic licence on a self-contained mobile electronic visual display device as listed and specified in ICAO Annex 1: 5.3.

Note: Examples of self-contained mobile electronic visual display devices are mobile phones, tablets, or other mobile devices.

(b) The licence shall be issued:

(1) In a form and manner as prescribed in IS 2.2.8; and

(2) In the English language.

(c) The licence shall contain the expiration date of the licence and ratings.

2.2.9 SUSPENSION OR REVOCATION OF A LICENCE, RATING, AUTHORISATION, OR CERTIFICATE

Note 1: See also 1.3 of Part 1.

2.2.9.1 SUSPENSION OF A LICENCE, RATING, AUTHORISATION, OR VALIDATION CERTIFICATE.

(a) If, in accordance with the Curaçao Civil Aviation Act, the Authority determines that the interests of safety require that a licence, rating, authorisation, or certificate must be suspended, the Authority may act as follows:

(1) If the Authority discovers facts indicating either a lack of competency or lack of qualification, the Authority may require an applicant for, or the holder of, any licence, rating, authorisation, or validation certificate to retake all or part of the knowledge or practical tests required for any licence, rating, authorisation, or validation certificate at issue, renewal, or reissue. The Authority may suspend the validity of any such licence, rating, authorisation, and/or validation certificate pending the results of such retesting.

(2) The Authority will provide to a person whose licence, rating, authorisation, or certificate has been amended, modified, suspended, or revoked, written notice of the amendment, modification, suspension, or revocation and an opportunity to be heard in accordance with 1.3 of these regulations.

(3) The Authority may also, after notifying in writing the person involved, stating the reasons for such action, suspend the validity of any licence, rating, authorisation, and/or validation certificate in the following cases:

(i) During the investigation of an aircraft disaster or incident;

(ii) In cases of proven misconduct, recklessness, or excessive carelessness;

(iii) If the holder has acted in contradiction to the holder's privileges; and/or

(iv) Pending the investigation of a suspected violation of these regulations or the aviation law under which these regulations are affected.

(4) Once the suspension is effective, the person involved shall immediately cease exercising the privileges of the affected licence, certificate, rating, or authorisation. The person involved shall surrender to the Authority within 8 days of receiving the notification of the order all licences or validation certificates in that person's possession that are subject to the suspension. If the person fails to surrender the documents under suspension, the Authority may revoke all such certificates held by that person.

(5) When a suspension is limited to one or more ratings mentioned on the licence or validation certificate, the Authority will provide the person involved with a new licence or validation certificate omitting all ratings which are subject to the suspension.

(6) The Authority may cancel a suspension in the following cases:

(i) If the person under suspension has taken and passed the knowledge or practical tests required for any licence, rating, or authorisation at issue indicated in paragraph 2.2.9.1(a) of this subsection;

(ii) If the person involved has gained the required additional experience; or

(iii) By revocation of the licence, rating, authorisation, and/or validation certificate.

(7) Once the suspension has been cancelled, other than by revocation, the Authority will issue the person involved a new licence or validation certificate.

2.2.9.2 SUSPENSION OF A MEDICAL CERTIFICATE

(a) In case of doubt concerning the medical fitness of the holder of a medical certificate, the Authority may determine that the person involved shall again repeat a complete or partial medical examination and may suspend the validity of that medical certificate until the repeat examination is completed with favourable results.

(b) The Authority may also suspend the validity of a medical certificate in case of a temporary rejection on medical grounds.

(c) The Authority will provide written notification of the suspension, stating the reasons for the suspension, to the person holding the medical certificate.

(d) The person holding the suspended medical certificate shall surrender that medical certificate to the Authority within 8 days after the date of receiving the notification.

(e) In cases in which the medical fitness of the person involved allows it, the Authority may provide the person with a suspended medical certificate of a particular class with a new medical certificate of a lower class.

(f) The Authority may lift a suspension if the medical examination indicated in paragraph 2.2.9.2(a) of this subsection has been passed satisfactorily. If a suspension is lifted, the person involved shall receive a new medical certificate unless the medical certificate was revoked.

2.2.9.3 REVOCATION OF LICENCES, RATINGS, AUTHORISATIONS, OR CERTIFICATES

(a) A licence, rating, authorisation, or certificate shall be revoked if the holder has lost the skills for exercising the privileges mentioned in the document or fails to meet the appropriate medical standards as shown by the results of a medical examination or a test.

(b) A licence, rating, authorisation, or certificate may be revoked if the holder has made a statement contrary to the truth in obtaining or maintaining that licence, rating, authorisation, or certificate, or has provided incorrect data at a medical examination and/or test required for the issue, maintenance, or renewal of the licence, rating, authorisation, or certificate.

(c) A licence, rating, authorisation, or certificate shall be revoked in the case of proven misconduct, recklessness, or excessive carelessness. The holder of the licence will be notified in writing of the revocation with the reasons therefore.

(d) A person who has had a licence or certificate revoked shall be obliged to hand over to the Authority all the licences or certificates in that person's possession applicable to the revocation within 8 days after the date of receiving notification from the Authority.

(e) The person who has been denied the privilege to manipulate the controls of an aircraft by judgment of a court shall be equally obliged to hand over to the Authority all licences and certificates in that person's possession within 8 days after the person has taken cognisance of the judgment or after it can be reasonably assumed that the person has taken cognisance thereof.

2.3 PILOT LICENCES, CATEGORIES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, INSTRUCTORS FOR PILOT LICENSING, AND DESIGNATED PILOT EXAMINERS

Note: The term pilot shall include RP.

2.3.1 GENERAL

2.3.1.1 APPLICABILITY

(a) This section prescribes the requirements for the issue, renewal, and reissue, if applicable, of pilot licences, ratings, and authorisations.

2.3.1.2 GENERAL RULE CONCERNING LICENCES, RATINGS, AND AUTHORISATIONS, AND DESIGNATIONS

(a) An applicant shall, before being issued any pilot licence, rating, authorisation, or designation, meet such requirements with respect to age, knowledge, experience, flight instruction, skill, medical fitness, and language proficiency as are specified for that licence, rating, or authorisation.

(b) A person shall not act as PIC or CP or as remote PIC or remote CP of an aircraft in any of the categories unless that person is the holder of a pilot licence issued in accordance with the requirements of this Part.

(c) An applicant shall, for renewal or reissue of a licence, rating, authorisation, or designation, meet the requirements specified for that licence, rating, authorisation, or designation.

2.3.1.3 AUTHORITY TO ACT AS A FLIGHT CREW MEMBER OR A REMOTE FLIGHT CREW MEMBER

(a) A person shall not act as a pilot flight crew member of an aircraft, or as a remote flight crew member of an RPAS, registered in Curaçao unless a valid licence or a validation certificate is held showing compliance with the requirements of this Part and appropriate to the duties to be performed by that person.

(b) No person may act as the PIC or CP of an aircraft unless that person holds the appropriate category, class, and type rating for the aircraft to be flown.

(c) During a skill test, the applicant acts as PIC but the safety pilot will intervene in safety situations.

2.3.1.4 CREDITING OF FLIGHT TIME

(a) A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction, and PIC flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.

(b) The holder of a pilot licence, when acting as CP at a pilot station of an aircraft certificated for operation by a single pilot but required by Curaçao to be operated with a CP, shall be entitled to be credited with not more than fifty percent (50%) of the CP flight time towards the total flight time required for a higher grade of pilot licence.The Authority may authorise that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a CP and the aircraft is operated in a multi-crew operation.

(c) The holder of a pilot licence, when acting as CP at a pilot station of an aircraft certificated to be operated with a CP, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

(d) The holder of a pilot licence, when acting as PIC under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

2.3.1.5 LIMITATION OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 65TH BIRTHDAY

(a) No person who holds a pilot licence issued under Part 2 shall serve as a PIC in single-pilot operations on a civil aircraft of Curaçao registry engaged in commercial air transport operations if the person has reached his or her 60th birthday.

(b) No person who holds a pilot licence issued under Part 2 shall serve as a pilot of a civil aircraft of Curaçao registry engaged in commercial air transport operations requiring more than one pilot if the person has reached his or her 65th birthday.

Note: Attention should be paid to new ICAO Annex 1 requirements for pilots who have attained their 60th birthday; the validity period of medical assessment shall be reduced to 6 months.

2.3.1.6 RECENT EXPERIENCE AND PROFICIENCY REQUIREMENTS FOR NON-COMMERCIAL AIR TRANSPORT OPERATIONS

Note: For commercial air transport operations, see 8.4 of these regulations.

(a) In order to maintain recency and proficiency, all pilots shall meet the applicable requirements in paragraphs 2.3.1.6(b) through (g) of this subsection.

(b) No person shall operate as PIC of an aircraft unless that pilot has, within 24 months, accomplished a flight review that includes:

(1) A review of the current general operating and flight rules of Part 8 of these regulations;

(2) A review of those manoeuvres and procedures that, at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot licence;

(3) A proficiency check in the appropriate aircraft for the licence, ratings, or authorisations held unless, within the past 24 months, the pilot has satisfactorily completed one of the following:

(i) A pilot proficiency check or practical test, conducted by an authorised CAA examiner, for a pilot certificate, rating, or operating privilege; or

(ii) A practical test conducted by an authorised CAA examiner for the issuance of an FI certificate or an additional rating on an FI certificate, the renewal of an FI certificate, or the reinstatement of an FI certificate; and

(4) A logbook endorsement from an authorised instructor who gave the review, certifying that the person has satisfactorily completed the review required in paragraphs 2.3.1.6(b)(3)(i) and (ii) and has completed the applicable proficiency check.

(c) AIRCRAFT TYPE CERTIFICATED FOR MORE THAN ONE PILOT.

(1) No person may act as PIC of an aircraft type certificated for more than one pilot or a turbojet aircraft unless, since the beginning of the past 12 calendar months, that pilot has passed a proficiency check in an aircraft, or in an FSTD approved for the purpose, with an authorised representative of the Authority.

(2) No person may act as CP of an aircraft type certified for more than one pilot unless, since the beginning of the past 12 calendar months, he or she has logged three take-offs and landings as the sole manipulator of the controls in the aircraft of the same type, or in an FSTD approved for the purpose, with each take-off and landing to full stop, and has satisfactorily completed ground training appropriate to the aircraft type.

(d) Aircraft type certificated for single pilot and requiring a type rating on the pilot licence. No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the past 12 calendar months, he or she has passed a proficiency check with an authorised representative of the Authority in the category, class, and type of aircraft to be operated, or in an FSTD approved for the purpose.

(e) Recency for carriage of passengers. No person may act as PIC or CP of an aircraft carrying passengers unless, within the preceding 90 days, that pilot has:

(1) Made three take-offs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type or in an FSTD approved for the purpose.

(2) For a tailwheel aeroplane, made the three take-offs and landings in a tailwheel aeroplane, with each take-off and landing to a full stop.

(3) For night operations, made the three take-offs and landings required by paragraph 2.3.1.6(e)(1) of this subsection at night, with each take-off and landing to a full stop.

(f) IFR OPERATIONS. A pilot shall not operate as PIC of an aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless, within the preceding 6 months, that pilot has:

(1) Had an instrument proficiency check on the manoeuvres in the IR Skill Test and Proficiency Check contained in the applicable CAA STSs; or

(2) Has logged, in actual or simulated conditions, 6 hours of instrument flight time including at least 3 hours in flight in the category of aircraft, to include:

(i) Six instrument approaches;

(ii) Holding procedures and tasks; and

(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(g) NIGHT VISION GOGGLE OPERATIONS. No person may act as PIC in a night vision goggle operation unless that pilot has:

(1) Performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle operation within the preceding 60 days to carry passengers on board or, within the preceding 120 days, to act as PIC without passengers on board:

(i) Three take-offs and landings, with each take-off and landing including a climbout, a cruise, a descent, and an approach phase of flight, if the pilot intends to use night vision goggles during the take-off and landing phase of flight;

(ii) Three hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;

(iii) Three area departure and area arrival tasks;

(iv) Three tasks of transitioning from aided night flight to unaided night flight and back to aided night flight;

(v) Three-night vision goggle operations or, when operating helicopters or powered-lifts, six night vision goggle operations; or

(vi) Has successfully completed a proficiency check with an authorised representative of the Authority.

2.3.1.7 RECORDING OF FLIGHT TIME

(a) Each person shall document and record the following time in a manner acceptable to the Authority, as prescribed in IS 2.3.1.7:

(1) Training and experience used to meet the requirements for a licence, rating, or authorisation issued in accordance with this Part; and

(2) The experience required to show recent flight experience according to the requirements of this Part.

2.3.2 CATEGORY, CLASS, AND TYPE RATINGS, CATEGORY II/III, PBN AUTHORIZATIONS AND ENDORSEMENTS

2.3.2.1 GENERAL

(a) The holder of a pilot licence shall not be permitted to act as PIC or CP of an aircraft unless the holder has received the applicable ratings, authorisations, and/or endorsements as follows:

(1) The appropriate aircraft category rating specified in this Part;

(2) The appropriate class rating when required in accordance with this Part;

(3) A type rating when required in accordance with this Part;

(4) An authorisation when required in accordance with this Part; or

(5) An endorsement when required in accordance with this Part.

(b) The applicant shall meet the appropriate requirements of Part 2 for the aircraft rating, authorisation, or endorsement sought.

(c) When an applicant demonstrates skill and knowledge for the initial issue or reissue of a pilot licence, the category and ratings appropriate to the class or type of aircraft used in the demonstration will be entered on the licence.

(d) For the purpose of training, testing, or specific special purpose non-revenue, non-passenger-carrying flights, special authorisation may be provided in writing to the licence holder by the Authority

in place of issuing the class or type rating in accordance with paragraph 2.3.2.1(a) of this subsection. This authorisation shall be limited in validity to the time needed to complete the specific flight.

2.3.2.2 CATEGORY RATINGS

(a) The category of aircraft shall be endorsed on the licence as a rating.

(b) INITIAL CATEGORY RATING.

(1) An applicant for a pilot licence, after successfully meeting all the requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category and, if applicable, the class or type rating endorsed on the licence.

(c) ADDITIONAL CATEGORY RATINGS.

(1) Any additional category rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the category rating is granted.

(2) The holder of a pilot licence seeking an additional category shall:

(i) Meet the requirements of this Part appropriate to the privileges for which the category rating is sought;

(ii) Have an endorsement in that licence holder's logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(iii) Pass the required knowledge test; and

(iv) Pass the required skill test for the aircraft category and, if applicable, the class rating being sought.

(d) PRIVILEGES. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.

(e) The validity, renewal, or reissue of the category rating will coincide with the requirements for the validity, renewal, or reissue of the licence and, if applicable, the class or type rating contained in this Part.

2.3.2.3 CLASS RATINGS

(a) The class of aircraft, if applicable, shall be endorsed on the licence as a rating.

(b) INITIAL CLASS RATING.

(1) An applicant for a pilot licence, after successfully meeting all the requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category, class, and, if applicable, type rating endorsed on the licence.

(c) ADDITIONAL CLASS RATINGS.

(1) Any additional class rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the class rating is granted.

(2) The holder of a pilot licence seeking an additional class rating shall:

(i) Meet the requirements of this Part appropriate to the privileges for which the class rating is sought;

(ii) Have an endorsement in that licence holder's logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(iii) Pass the required knowledge test, unless the applicant holds a class rating within the same category of aircraft at the same level of pilot licence at either the private or commercial levels; and

(iv) Pass the required skill test for the aircraft class rating being sought.

(d) PRIVILEGES Subject to compliance with the requirements specified in Part 2, the privileges of the

holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.

(e) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of:

(1) A multi-engine class rating is 1 calendar year; and

(2) A single-engine class rating, is 2 calendar years.

(f) RENEWAL TIME FRAME.

(1) For the renewal of a single-engine class rating, the pilot shall:

(i) Within the preceding 24 calendar months, complete a proficiency check on areas of operation listed in the skill test that is applicable to the level of licence, category, and class rating; and

(ii) Have completed 12 hours of flight time within the 12 months preceding the expiry date.

(2) For the renewal of a multi-engine class rating the pilot shall:

(i) Within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the skill test that is applicable to the level of licence, category, and class rating; and

(ii) Have completed 10 route sectors within the 3 months preceding the expiry date.

(3) Where applicable, the proficiency check shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure.

(4) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(g) RE-ISSUE.

(1) If the class rating has expired, the applicant shall:

(i) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(ii) Pass the required skill test for the applicable aircraft category and/or class.

(2) Where applicable, the skill test shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.

2.3.2.4 TYPE RATINGS

(a) The type rating shall be endorsed on the licence as a rating, including any limitations.

(b) The holder of a pilot licence seeking an additional aircraft type rating shall:

(1) Have received training from an authorised instructor in the applicable type of aircraft and/or approved FSTD, including the following:

(i) Normal flight procedures and manoeuvres during all phases of flight;

(ii) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, systems, and airframe;

(iii) Where applicable, instrument procedures, including instrument approach, missed approach, and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure;

(iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation, and use of checklists; and

(v) For the issue of an aeroplane category type rating, upset prevention and recovery training.

(2) Hold or concurrently obtain an IR that is appropriate to the aircraft category, class, or type rating sought;

(3) Have an endorsement in that licence holder's logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(4) Demonstrate the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the duties of a PIC or a CP; and

(5) Demonstrate, at the ATPL level, an extent of knowledge as specified in paragraph 2.3.7.1(c) of this Part.

(6) Pass the required skill test at the ATPL level, applying CRM concepts, applicable to the aircraft category, class, and type rating being sought;

(i) Applicants seeking a private or commercial licence in an aircraft that requires a type rating shall also complete the applicable portions of either the PPL or CPL skill test in conjunction with the ATPL skill test.

(7) Perform the skill test under IFR unless the aircraft used for the skill test is not capable of the instrument manoeuvres and procedures required for the skill test, in which case the applicant may:

(i) Obtain a type rating limited to "VFR only;" and

(ii) Remove the "VFR only" limitation for each aircraft type in which the applicant demonstrates compliance with the ATPL skill test under instrument conditions.

(c) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a type rating are to act as a pilot on the type of aircraft specified in the rating. When a type rating is issued limiting the privileges to act as CP or limiting the privileges to act as pilot only during the cruise phase of flight, such limitation shall be endorsed on the rating.

(d) VALIDITY. Subject to compliance with the requirements in this Part, the validity period of a type rating is 1 calendar year.

(e) RENEWAL.

(1) For the renewal of a type rating, the pilot shall:

(i) Within the preceding 12 calendar months, complete a proficiency check on the areas of operation listed in the skill test for the appropriate category, type, and, if applicable, class of aircraft; and

(ii) Have completed 10 route sectors within the 3 months preceding the expiry date

(2) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(f) RE-ISSUE If the type rating has expired the applicant shall:

(1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test for the appropriate category, type, and, if applicable, class of aircraft.

Note 1: Until 05 March 2025, the Licensing Authority may endorse a type rating for aircraft of the powered-lift category on an aeroplane or helicopter pilot licence. The endorsement of the rating on the licence shall indicate that the aircraft is part of the powered-lift category. The training for the type rating in the powered-lift category shall be completed during a course of approved training, shall take into account the previous experience of the applicant in an aeroplane or a

helicopter as appropriate and incorporate all relevant aspects of operating an aircraft of the powered-lift category.

Note 2: The aeroplane upset prevention and recovery training may be integrated in the type rating programme or may be conducted immediately after, as an additional module.

2.3.2.5 CATEGORY II AND III AUTHORISATION

(a) The Authority will issue a CAT II or CAT III pilot authorisation by letter, to accompany the pilot licence, when the pilot meets the requirements contained in this subsection and in IS 2.3.2.5.

(b) General.

(1) A person, not flying for an AOC holder under Part 9 of these regulations, may not act as pilot of an aircraft during CAT II or III operations unless that person holds a CAT II or III pilot authorisation for that category, class, or type of aircraft.

(2) The applicant for a CAT II or III pilot authorisation shall:

(i) Hold a pilot licence with an IR or an ATPL; and

(ii) Hold a category and class or type rating for the aircraft for which the authorisation is sought.

(c) KNOWLEDGE. The applicant for a CAT II or III pilot authorisation shall have completed the theoretical knowledge instruction on the subjects listed in IS 2.3.2.5.

(d) EXPERIENCE. The applicant for a CAT II or III pilot authorisation shall have at least:

(1) 50 hours of night flight time as PIC;

(2) 75 hours of instrument time under actual or simulated instrument conditions; and

(3) 250 hours of cross-country flight time as PIC.

(e) FLIGHT INSTRUCTION. The applicant for a CAT II or III pilot authorisation shall have completed the flight instruction on the areas of operation listed in IS 2.3.2.5.

(f) SKILL. The applicant for a CAT II or III pilot authorisation shall pass a skill test including the areas of operation listed in IS 2.3.2.5.

(g) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of a CAT II or III authorisation is 6 months.

(h) RENEWAL. For the renewal of a CAT II or III pilot authorisation, the pilot shall have completed a proficiency check including the areas of operation listed in IS 2.3.2.5.

(i) RE-ISSUE. If the CAT II or III has expired, the applicant shall:

(1) Have received refresher training from an authorised instructor, with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test on the subjects listed in IS 2.3.2.5.

2.3.2.6 PERFORMANCE-BASED NAVIGATION PILOT AUTHORISATION

(a) Instrument rated pilots may only fly in accordance with performance-based navigation ('PBN') procedures after they have been authorized for PBN privileges.

(b) The Authority will issue an instrument rated pilot a PBN pilot authorisation by letter, to accompany the pilot licence, when the pilot meets the requirements contained in this subsection and IS 2.3.2.6.

(c) GENERAL.

(1) A person, not flying for an AOC holder under Part 9 of these regulations, may not act as pilot of an aircraft during PBN operations unless that person holds a PBN pilot authorisation.

(2) The applicant for a PBN pilot authorisation shall hold a pilot licence with an IR or an ATPL.

(d) IR pilots without PBN privileges may only fly on routes and approaches that do not require PBN privileges and no PBN items shall be required for the renewal of their IR.

(e) The requirements of paragraphs 2.3.2.6(f) and 2.3.2.6(h) shall be deemed to have been fulfilled where the authority considers that the competence acquired, either through training or from familiarity with PBN operations, is equivalent to the competence acquired through the courses referred to in paragraph 2(a) and (b) and the pilot demonstrates such competence to the satisfaction of the examiner at the proficiency check or skill test referred to in paragraph 2.3.2.6(i).

(f) KNOWLEDGE. The applicant for a PBN pilot authorisation shall have completed the theoretical knowledge instruction on the subjects listed in IS 2.3.2.6.

(g) EXPERIENCE. The applicant for a PBN pilot authorisation shall have completed the IR experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.

(h) FLIGHT INSTRUCTION. The applicant for a PBN pilot authorisation shall have completed the flight instruction on the areas of operation listed in IS 2.3.2.6.

(i) SKILL. The applicant for a PBN pilot authorisation shall pass a skill test including the areas of operation listed in IS 2.3.2.6.

(j) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a PBN autorisation shall be to pilot an aircraft of the appropriate category under IFR operations with a minimum decision height of no less than 200 feet (60 m).

(k) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of a PBN authorisation is 12 months.

(l) RENEWAL. For the renewal of a PBN pilot authorisation, the pilot shall have completed a proficiency check including the areas of operation listed in IS 2.3.2.6.

(m) RE-ISSUE. If the PBN has expired, the applicant shall:

(1) Have received refresher training from an authorised instructor, with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test on the subjects listed in IS 2.3.2.6.

2.3.2.7 COMPLEX AEROPLANE ENDORSEMENT

(a) No person shall act as PIC of a complex aeroplane, including a seaplane, unless the person has:

(1) Received and logged ground and flight training from an authorised instructor in a complex aeroplane or an FSTD that is representative of a complex aeroplane and has been found proficient in the operation and systems of the aeroplane; and

(2) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a complex aeroplane.

2.3.2.8 HIGH-PERFORMANCE AEROPLANE ENDORSEMENT

(a) No person shall act as PIC of a high-performance aeroplane unless the person has:

(1) Received and logged ground and flight training from an authorised instructor in a high-performance aeroplane or an FSTD that is representative of a high-performance aeroplane and has been found proficient in the operation and systems of the aeroplane; and

(2) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a high-performance aeroplane.

2.3.2.9 HIGH-ALTITUDE AIRCRAFT ENDORSEMENT

(a) No person shall act as PIC of a pressurised aircraft capable of operating at high altitudes (an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25 000 ft MSL)

unless the person has:

(1) Received and logged ground training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished ground training in at least the following subjects:

(i) High-altitude aerodynamics and meteorology;

(ii) Respiration;

(iii) Effects, symptoms, and causes of hypoxia and any other high-altitude sickness;

(iv) Duration of consciousness without supplemental oxygen;

(v) Effects of prolonged usage of supplemental oxygen;

(vi) Causes and effects of gas expansion and gas bubble formation;

(vii) Physical phenomena and incidents of decompression; and

(viii) Any other physiological aspects of high-altitude flight.

(2) Received and logged flight training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished flight training in a pressurised aircraft, or in an FSTD that is representative of a pressurised aircraft, in at least the following subjects:

(i) Normal cruise flight operations while operating above 25 000 ft MSL;

(ii) Proper emergency procedures for simulated rapid decompression without actually depressurizing the aircraft; and

(iii) Emergency descent procedures.

2.3.2.10 NIGHT VISION GOGGLES ENDORSEMENT

(a) No person shall act as pilot of an aircraft using night vision goggles unless that person has received training from an authorised instructor and has received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following ground training:

(1) Applicable requirements of this Part and Part 8 of these regulations that relate to night vision goggle limitations and flight operations;

(2) Aeromedical factors related to the use of night vision goggles, including how to protect night vision, how the eyes adapt to night, self-imposed stresses that affect night vision, effects of lighting on night vision, cues used to estimate distance and depth perception at night, and visual illusions;

(3) Normal, abnormal, and emergency operations of night vision goggle equipment;

(4) Night vision goggle performance and scene interpretation; and

(5) Night vision google operation flight planning, including night terrain interpretation and factors affecting terrain interpretation.

(b) No person shall act as pilot of an aircraft using night vision goggles unless that person has received training from an authorised instructor and has received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following flight training:

(1) Pre-flight and use of internal and external aircraft light systems for night vision goggle operations;

(2) Pre-flight preparation of night vision goggles for night vision goggle operations;

(3) Proper piloting techniques when using night vision goggles during the take-off, climb, en route, descent, and landing phases of flight; and

(4) Normal, abnormal, and emergency flight operations using night vision goggles.

(c) The requirements under paragraphs 2.3.2.10(a) and (b) of this subsection do not apply if a person can document satisfactory completion of any of the following pilot proficiency checks using night vision goggles in an aircraft:

(1) A pilot proficiency check on night vision goggle operations conducted by the military;

(2) A pilot proficiency check on night vision goggle operations under this Part or Part 8 of these regulations conducted by an examiner or check pilot; or

(3) A pilot proficiency check on night vision goggle operations conducted by a night vision goggle manufacturer or authorised instructor, when the pilot:

(i) Is employed by a government or law enforcement agency; and

(ii) Has logged at least 20 hours as PIC in night vision goggle operations.

2.3.3 STUDENT PILOTS

2.3.3.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a student pilot authorisation shall be at least 16 years of age.

(b) KNOWLEDGE. The applicant for a student pilot authorisation shall receive and log ground training from an authorised instructor on the following subjects:

(c) Applicable sections of Part 2 for the category of aircraft to be flown and of Part 8 of these regulations;

(d) Airspace rules and procedures for the aerodrome where the student will perform solo flight; and

(e) Flight characteristics and operation limitations for the make and model of aircraft to be flown.

(f) PRE SOLO FLIGHT INSTRUCTION. Prior to conducting a solo flight, a student pilot shall have:

(g) Received and logged flight training for the manoeuvres and procedures applicable to the aircraft category, including flight training in those manoeuvres and procedures at night, if the solo flight is to be conducted at night; and

(h) Demonstrated satisfactory proficiency and safety, as judged by an authorised instructor, on the manoeuvres and procedures for the appropriate category and class, if applicable, of aircraft.

(i) SOLO FLIGHT REQUIREMENTS. A student pilot shall not fly solo:

(j) Unless holding at least a Class 2 medical certificate;

(k) Unless under the supervision of, or with the authority of, a licensed FI; and

(l) In international flight unless there is a special or general arrangement between Curaçao and the intended State of flight.

2.3.3.2 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AEROPLANE CATEGORY

An applicant for a student pilot authorisation in the aeroplane category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.2.

2.3.3.3 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – HELICOPTER CATEGORY

An applicant for a student pilot authorisation in the helicopter category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.3.

2.3.3.4 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – POWERED-LIFT CATEGORY

An applicant for a student pilot authorisation in the powered-lift category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.4.

2.3.3.5 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AIRSHIP CATEGORY

An applicant for a student pilot authorisation in the airship category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.5.

2.3.3.6 RESERVED

2.3.3.7 RESERVED

2.3.4 RESTRICTED PRIVATE PILOT LICENCE

2.3.4.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a RPPL shall be not less than 17 years of age.

(b) MEDICAL FITNESS. The applicant for a RPPL shall hold a current Class 2 Medical Certificate as issued under Part 2.

(c) KNOWLEDGE AREAS. The applicant for a RPPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft to be included on the licence:

(1) AIR LAW:

(i) Rules and regulations relevant to the holder of a PPL, rules of the air, appropriate air traffic services practices and procedures.

(2) AIRCRAFT GENERAL KNOWLEDGE:

(i) Principles of operation and functioning of powerplants, systems and instruments.

(ii) Operating limitations of aeroplanes and the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document.

(iii) For helicopter and powered lift, transmission (power-trains) where applicable;

(iv) For airship, physical properties of gases.

(3) FLIGHT PERFORMANCE AND PLANNING:

(i) Effects of loading and mass distribution on flight characteristics, mass and balance calculations.

(ii) Use and practical application of take-off or launching, landing and other performance data.

(iii) Pre-flight and en-route flight planning appropriate to private operations under VFR, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, position reporting procedures, altimeter setting procedures, operations in areas of high-density traffic.

(4) HUMAN PERFORMANCE:

(i) Human performance relevant to the appropriate category of aircraft.

(ii) Principles of threat and error management.

(5) METEOROLOGY:

(i) Application of elementary aeronautical meteorology, use of, and procedures for obtaining, meteorological information, altimetry, hazardous weather conditions.

(6) NAVIGATION:

(i) Practical aspects of air navigation and dead-reckoning techniques as well as the use of basic radio navigation and use of aeronautical charts.

(7) OPERATIONAL PROCEDURES:

(i) Application of threat and error management to operational procedures.

(ii) Altimeter setting procedures.

(iii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations.

(iv) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards.

(v) In the case of the helicopter, and if applicable, powered lift, settling with power; ground resonance; retreating blade stall, dynamic roll-over and other operation hazards, safety procedures, associated with flight under visual meteorological conditions (VMC).

(8) PRINCIPLES OF FLIGHT:

(i) Principles of flight relating to the appropriate category of aircraft.

(9) COMMUNICATIONS:

(i) Radiotelephony communications procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

(d) KNOWLEDGE TESTING. The applicant for a RPPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required written knowledge test on the knowledge areas listed in Paragraph 2.3.4.1(c) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for a RPPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for a RPPL shall:

(1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.

(2) Have demonstrated by passing a skill test the ability to perform as PIC of an aircraft, within the appropriate category areas of operation described in the appropriate IS 2.3.4 listed below, with a degree of competency appropriate to the privileges granted to the holder of a RPPL.

(3) Have demonstrated the ability to:

(i) Recognise and manage threats;

(ii) Operate the aircraft within its limitations;

(iii) Complete all manoeuvres with smoothness and accuracy;

(iv) Exercise good judgment and airmanship;

(v) Apply aeronautical knowledge; and

(vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

(g) PRIVILEGES.

(1) Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a RPPL shall be to act, but not for remuneration, as PIC or co-pilot of an aeroplane aircraft within the appropriate aircraft category engaged in non-revenue flights.

(2) The holder of a RPPL may act as PIC on a flight during day time that remains within 25 nm of the Curaçao Hato International Airport ARP (or: above the island of Curaçao, klein Curaçao and its territorial waters).

(3) The holder of a RPPL may only act as a pilot during cross country flights under the supervision of, or with the authority of, a licensed flight instructor.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. A restricted private pilot licence that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the restricted private pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.

2.3.4.2 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL - AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for a RPPL(A) shall have completed not less than 30 hours of flight time, as pilot of aeroplanes, appropriate to the class rating sought. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 30 hours. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in flight simulation training device approved by the Authority.

(2) The applicant shall have completed in aeroplanes not less than 10 hours of solo flight time under the supervision of an authorised flight instructor.

(3) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as PIC towards a RPPL(A).

(b) FLIGHT INSTRUCTION.

(1) The applicant for a RPPL(A) shall receive and log not less than 20 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.4.2. These 20 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognize and Manage Threats and errors;

(ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the aeroplane by external visual reference;

(v) Flight at critically slow airspeeds, recognition of, and recovery from, incipient and full stalls;

(vi) Flight at critically high airspeeds, recognition of, and recovery from, spiral dives;

(vii) Normal and cross-wind take-offs and landings;

(viii) Maximum performance (short field and obstacle clearance take-offs, short-field landings);

(ix) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;

(x) Emergency operations, including simulated aeroplane equipment malfunctions; and

(xi) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;

(xii) As further specified in IS 2.3.4.2.

(c) The requirements for the skill test for the RPPL(A) are included in IS 2.3.4.2.

2.3.4.3 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL—HELICOPTER CATEGORY

(a) Experience.

(1) The applicant for a RPPL(H) shall have completed not less than 30 hours of flight time as a pilot of helicopters. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 30 hours. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in a flight simulation training device approved by the Authority.

(2) The applicant shall have completed in helicopter not less than 10 hours of solo flight time under the supervision of an authorised flight instructor.

(3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a RPPL(H).

(b) Flight Instruction.

(1) The applicant for a RPPL(H) shall receive and log not less than 20 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.4.3. These 20 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the helicopter by external visual reference;

(v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) Ground manoeuvring and run-ups, hovering, take-offs and landings – normal, out of wind and sloping ground;

(vii) Take-offs and landings with minimum necessary power, maximum performance take-off and landing techniques, restricted site operations, quick stops;

(viii) Emergency operations, including simulated helicopter equipment malfunctions, autorotative approach and landing; and

(ix) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL(H) are included in IS 2.3.4.3.

2.3.4.4 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL – POWERED-LIFT CATEGORY

(a) Experience.

(1) The applicant for a RPPL- Powered Lift shall have completed not less than 30 hours of flight time as pilot of powered lift. The Authority should determine whether such experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 30 hours.

(2) The applicant shall have completed in a powered lift aircraft not less than 10 hours of solo flight time under the supervision of an authorised flight instructor.

(3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a RPPL(H).

(b) Flight Instruction. The applicant shall have received not less than 20 hours dual instruction from an authorised instructor in at least the following areas:

(1) Recognise threat and error management;

(2) Pre-flight operations, including mass and balance determination, powered lift inspection and servicing;

(3) Aerodrome and traffic operations, collision avoidance precautions and procedures;

(4) Control of the powered lift by external visual reference;

(5) Ground manoeuvring and run-ups, hover and rolling take-offs and climb out, hover and rolling approach and landings – normal, out of wind and slopping ground;

(6) Take-offs and landings with minimum necessary power, maximum performance take-off and landing techniques, restricted site operations, quick stops;

(7) Emergency operations, including simulated powered lift equipment malfunctions, power of reconversion to autorotation and autorotative approach, where applicable, transmission and interconnect driveshaft failure, where applicable; and

(8) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL-powered-lift category are included in IS 2.3.4.4.

2.3.4.5 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL— AIRSHIP CATEGORY

(a) Experience. The applicant for a RPPL- Airship shall have completed not less than 15 hours of flight time as pilot of airships including at least:

(1) Five take-offs and five landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern of an aerodrome;

(2) Three hours of instrument time; and

(3) Five hours as pilot assuming the duties of the PIC under the supervision of the PIC.

(b) Flight Instruction. The applicant shall have received dual instruction from an authorised instructor in at least the following areas:

(1) Pre-flight operations, including mass and balance determination, airships inspections and servicing;

(2) Ground reference manoeuvres;

(3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;

(5) Control of the airships by external visual reference;

(6) Take-offs and landings and go-around;

(7) Maximum performance (obstacle clearance) take-offs;

(8) Flight by reference solely to instruments, including the completion of a level 180 degree turn;

(9) Navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;

(10) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and

(11) Radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL—Airship are included in IS 2.3.4.5.

2.3.4.6 RESERVED

2.3.4.7 RESERVED

2.3.5 PRIVATE PILOT LICENCE

2.3.5.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a PPL in all categories shall be at least 17 years of age.

(b) MEDICAL FITNESS. The applicant for a PPL shall hold a current Class 2 medical certificate as issued under Part 2.

(c) KNOWLEDGE AREAS. The applicant for a PPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a PPL and appropriate to the category of aircraft to be included on the licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the holder of a PPL; rules of the air; appropriate ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) Principles of operation and functioning of engines, systems, and instruments;

(ii) Operating limitations of aeroplanes and the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;

(iii) For helicopter and powered-lift, transmission (power trains) where applicable;

(iv) For airship, physical properties and practical application of gases;

(3) FLIGHT PERFORMANCE AND PLANNING.

(i) Effects of loading and mass distribution on flight characteristics; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to private operations under VFR; preparation and filing of ATS flight plans; appropriate ATS procedures; position reporting procedures; altimeter setting procedures; and operations in areas of high-density traffic;

(4) HUMAN PERFORMANCE.

(i) Human performance relevant to the appropriate category of aircraft;

(ii) Principles of threat and error management;

(5) METEOROLOGY.

(i) Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions;

(6) NAVIGATION.

(i) Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical

charts;

(7) OPERATIONAL PROCEDURES.

(i) Application of threat and error management to operational procedures;

(ii) Altimeter setting procedures;

(iii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iv) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence, and other operating hazards;

(v) In the case of helicopter and, if applicable, powered-lift, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures associated with flight under VMC;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate category of aircraft; and

(9) RADIOTELEPHONY.

(i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

(d) KNOWLEDGE TESTING. The applicant for a PPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required written knowledge test on the knowledge areas listed in paragraph 2.3. 5.1(c) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for a PPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for a PPL shall have:

(1) Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test;

(2) Demonstrated by passing a skill test the ability to perform as PIC of an aircraft within the appropriate category areas of operation described in the appropriate STS listed below with a degree of competency appropriate to the privileges granted to he holder of a PPL; and

(3) Demonstrated the ability to:

(4) Recognise and manage threats;

(5) Operate the aircraft within its limitations;

(6) Complete all manoeuvres with smoothness and accuracy;

(7) Exercise good judgement and airmanship;

(8) Apply aeronautical knowledge; and

(9) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a PPL shall be to act, but not for remuneration, as PIC or CP of an aircraft within the appropriate aircraft category engaged in non-revenue flights.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. A PPL that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the PPL has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the private pilot skill test.

2.3.5.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for a PPL(A) shall have completed not less than 55 hours of flight time, or 50 hours if completed during a course of approved training, as a pilot of aeroplanes appropriate to the class rating sought. The Authority will determine whether experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 55 or 50 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in an FSTD approved by the Authority.

(2) The applicant for a PPL(A) shall have completed in aeroplanes not less than 10 hours of solo flight time under the supervision of an authorised FI, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(3) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as PIC towards a PPL(A).

(b) FLIGHT INSTRUCTION.

(1) The applicant for a PPL(A) shall have received and logged not less than 15 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.5.2 for PPL(A). These 15 hours may include 5 hours completed in an FSTD. The 15 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(2) The instructor shall ensure that the applicant for a PPL(A) has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, aeroplane inspection, and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the aeroplane by external visual reference;

(v) Flight at critically slow airspeeds; recognition of and recovery from incipient and full stalls;

(vi) Flight at critically high airspeeds; recognition of and recovery from spiral dives;

(vii) Normal and crosswind take-offs and landings;

(viii) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;

(ix) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;

(x) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids;

(xi) Emergency operations, including simulated aeroplane equipment malfunctions;

(xii) Operations to, from, and transiting controlled aerodromes; compliance with ATS

procedures;

(xiii) Radiotelephony procedures and phraseology; and

(xiv) As further specified in the IS 2.3.5.2 for PPL(A).

(3) If the privileges of the PPL(A) are to be exercised at night, the applicant shall have received 4 hours of dual instruction in aeroplanes in night flying, including take-offs, landings, and 1 hour of navigation.

Note: Training can be performed by an individually authorised FI, by an authorised FI in a flying club, or in an ATO.

(c) The requirements for the skill test for the PPL(A) are included in the IS 2.3.5.2 for PPL(A).

Note: The instrument experience specified in 2.3.5.2(a)(1) and the night flying dual instruction in 2.3.5.1(g) do not entitle the holder of a private pilot licence to aeroplanes under IFR.

2.3.5.3 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – HELICOPTER CATEGORY

(a) EXPERIENCE.

(1) The applicant for a PPL(H) shall have completed not less than 55 hours of flight time, or 50 hours if completed during a course of approved training, as a pilot of helicopters. The Authority will determine whether experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 55 or 50 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in an FSTD approved by the Authority.

(2) The applicant for a PPL(H) shall have completed in helicopters not less than 10 hours of solo flight time under the supervision of an authorised FI, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.

(3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a PPL(H).

(b) FLIGHT INSTRUCTION.

(1) The applicant for a PPL(H) shall have received and logged not less than 15 hours of dual instruction from an authorised instructor on the subjects listed in theIS 2.3.5.3 for PPL(H). These 15 hours may include 5 hours completed in an FSTD. The 15 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.

(2) The instructor shall ensure that the applicant for a PPL(H) has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, helicopter inspection, and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the helicopter by external visual reference;

(v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind, and sloping ground;

(vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(viii) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids, including a flight of at least 1 hour;

(ix) Emergency operations, including simulated helicopter equipment malfunctions; autorotative approach and landing;

(x) Operations to, from, and transiting controlled aerodromes; compliance with ATS procedures;

(xi) Radiotelephony procedures and phraseology; and

(xii) As furthered specified in the IS 2.3.5.3 for PPL(H).

(3) If the privileges of the PPL(H) are to be exercised at night, the applicant shall have received 4 hours of dual instruction in helicopters in night flying, including take-offs, landings, and 1 hour of navigation.

(c) The requirements for the skill test for the PPL(H) are included in IS 2.3.5.3 for PPL(H).

Note: The instrument experience specified in 2.3.5.3(a)(1) and the night flying dual instruction in2.3.5.1(g) do not entitle the holder of a private pilot licence to helicopters inder IFR.

2.3.5.4 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – POWERED LIFT CATEGORY

(a) EXPERIENCE.

(1) The applicant for a PPL(PL) shall have completed not less than 55 hours of flight time as pilot of powered-lifts. The Authority will determine whether such experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 55 hours. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in an FSTD approved by the Authority.

(2) When the applicant for a PPL(PL) has flight time as a pilot of aircraft in other categories, the Authority will determine whether such experience is acceptable and, if so, the extent to which the flight time in paragraph 2.3.5.4(a) of this subsection may be reduced.

(3) The applicant for a PPL(PL) shall have completed in a powered-lift aircraft not less than 10 hours of solo flight time under the supervision of an authorised FI, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(b) FLIGHT INSTRUCTION. The applicant for a PPL(PL) shall have received not less than 15 hours dual instruction in powered-lifts from an authorised instructor in at least the following areas:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;

(3) Aerodrome and traffic operations, collision avoidance precautions and procedures;

(4) Control of the powered-lift by external visual reference;

(5) Ground manoeuvring and run-ups; hover and rolling take-offs and climbout; hover and rolling approach and landings – normal, out of wind, and sloping ground;

(6) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(7) Flight by reference solely to instruments, including the completion of a level 180° turn;

(8) Recovery at the incipient stage from settling with power; recovery techniques fom low-rotor rpm within the normal;

(9) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids, including a flight of at least 1 hour;

(10) Emergency operations, including simulated powered-lift equipment malfunctions; power of reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable;

(11) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

(12) Radiotelephony procedures and phraseology; and

(13) As further specified in IS 2.3.5.4 for PPL(PL).

(c) The requirements for the skill test for the PPL(PL) are included in the IS 2.3.5.4 for PPL(PL).

Note: The instrument experience specified in 2.3.5.4(b)(7) and the night flying dual instruction in 2.3.5.1(g) do not entitlethe holder of a private pilot licence to pilot powered lifts under IFR.

2.3.5.5 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – AIRSHIP CATEGORY

(a) EXPERIENCE. The applicant for a PPL(AS) shall have completed not less than 25 hours of flight time as pilot of airships, including at least:

(1) hours of cross-country flight training in an airship with a cross-country flight totalling not less than 45 km (25 nm);

(2) Five take-offs and five landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern at an aerodrome;

(3) hours of instrument time; and

(4) hours as pilot assuming the duties of the pic under the supervision of the pic.

(b) FLIGHT INSTRUCTION. The applicant for a PPL(AS) shall have received dual instruction from an authorised instructor in at least the following areas:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;

(3) Ground reference manoeuvres;

(4) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(5) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures, and signals used;

(6) Control of the airship by external visual reference;

(7) Take-offs, landings, and go-arounds;

(8) Maximum performance (obstacle clearance) take-offs;

(9) Flight by reference solely to instruments, including the completion of a level 180 degree turn;

(10) Navigation, cross-country flying using visual reference, dead reckoning, and radio navigation aids;

(11) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and

(12) Radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL(AS) are included in IS 2.3.5.5 for PPL(AS).

Note: The instrument experience specified in 2.3.5.5(b)(8) and the night flying dual instruction in 2.3.5.1(g) do not entitle the holder of a private pilot licence to airship under IFR.

2.3.5.6 RESERVED.

2.3.5.7 RESERVED.

2.3.6 COMMERCIAL PILOT LICENCE

2.3.6.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a CPL shall be at least 18 years of age.

(b) MEDICAL FITNESS. The applicant for a CPL shall hold a current Class 1 medical certificate issued under Part 2.

(c) KNOWLEDGE AREAS. The applicant for a CPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a CPL and appropriate to the category of aircraft to be included on the licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the holder of a CPL; rules of the air; appropriate ATS practices and procedures.

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) Principles of operation and functioning of powerplants, systems, and instruments;

(ii) Operating limitations of the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;

(iii) Use and serviceability checks of equipment and systems of appropriate aircraft;

(iv) Maintenance procedures for airframes, systems, and powerplants of appropriate aircraft;

(v) For helicopters and powered-lifts, transmission (power-trains) where applicable;

(vi) For airships, physical properties and practical application of gases;

(3) FLIGHT PERFORMANCE, PLANNING AND LOADING.

(i) Effects of loading and mass distribution on aircraft handling, flight characteristics, and performance; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to commercial operations under VFR; preparation and filing of ATS flight plans; appropriate ATS procedures;

(iv) In the case of airships, helicopter, and powered-lift, effects of external loading on handling;

(4) HUMAN PERFORMANCE

(i) Human performance relevant to the appropriate aircraft type;

(ii) Principles of threat and error management;

(5) METEOROLOGY.

(i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect upon aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

(iii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(6) NAVIGATION.

(i) Air navigation, including the use of aeronautical charts, instruments, and navigation aids;

(ii) An understanding of the principles and characteristics of appropriate navigation

systems;

(iii) Operation of airborne equipment;

(iv) In the case of airships:

(A) Use, limitation, and serviceability of avionics and instruments necessary for control and navigation;

(B) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight, identification of radio navigation aids;

(C) Principles and characteristics of self-contained and external referenced navigation systems; operation of airborne equipment;

(7) OPERATIONAL PROCEDURES.

(i) Application of threat and error management to operational performance;

(ii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iii) Altimeter setting procedures;

(iv) Appropriate precautionary and emergency procedures;

(v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods;

(vi) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

(vii) In the case of helicopters, and, if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight under VMC;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate category of aircraft;

(9) RADIOTELEPHONY.

(i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure; and

(ii) As further specified in the applicable IS 2.3.6.

(d) KNOWLEDGE TESTING. The applicant for a CPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test on the knowledge subjects listed in the applicable CAA knowledge test guide.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for a CPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for a CPL shall have:

(1) Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and

(2) Demonstrated by passing a skill test the ability to perform as PIC of an aeroplane the areas of operation described in the applicable IS 2.3.6 with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to:

(i) Recognize and manage threats and errors;

(ii) Operate the aeroplane within its limitations;

(iii) Complete all manoeuvres with smoothness and accuracy;

(iv) Exercise good judgement and airmanship;

(v) Apply aeronautical knowledge; and

(vi) Maintain control of the aeroplane at all times in a manner such that the successful

outcome of a procedure or manoeuvre is never seriously in doubt.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a CPL shall be:

(1) To exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;

(2) To act as PIC of an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;

(3) To act as PIC in commercial air transportation of an aircraft within the appropriate aircraft category and certificated for single-pilot operation;

(4) To act as CP of an aircraft within the appropriate aircraft category required to be operated with a CP; and

(5) For the airship category, to pilot an airship under IFR.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. A CPL that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the CPL has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the commercial pilot skill test.

2.3.6.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(A) shall have completed not less than 200 hours of flight time, or 150 hours if completed during a CAA-approved training course provided by an ATO under Part 3 of these regulations, as a pilot of aeroplanes, of which 20 hours may have been completed in an FSTD.

(2) The applicant for a CPL(A) shall have completed in aeroplanes not less than:

(i) 100 hours as PIC or, in the case of a course of approved training, 70 hours as PIC;

(ii) 20 hours of cross-country flight time as PIC including a cross-country flight totalling not less than 540 km (300 NM), in the course of which full-stop landings at two different aerodromes shall be made;

(iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and

(iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including five take-offs and five landings as PIC.

(3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:

(i) 10 hours as PIC in a category other than helicopters;

(ii) 30 hours as PIC holding a PPL(H) in helicopters; or

(iii) 100 hours as PIC holding a CPL(H) in helicopters.

(4) The applicant for a CPL(A) shall hold a PPL(A) issued under Part 2.

(b) FLIGHT INSTRUCTION.

(1) The applicant for a CPL(A) shall have received and logged not less than 25 hours of dual instruction from an authorised instructor. These 25 hours may include 5 hours completed in an FSTD.

(2) The instructor shall ensure that the applicant has operational experience in at least the

following areas to the level of performance required for the commercial pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the aeroplane by external visual reference;

(v) Flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;

(vi) Flight with asymmetrical power for multi-engine class or type ratings;

(vii) Flight at critically high airspeeds; recognition of and recovery from spiral dives;

(viii) Normal and crosswind take-offs and landings;

(ix) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;

(x) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(xi) Cross-country flying using visual reference, dead reckoning, and radio navigation aids; diversion procedures;

(xii) Abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;

(xiii) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

(xiv) Radiotelephony procedures and phraseology; and

(xv) Upset prevention and recovery training in actual flight.

(3) If the privileges of the CPL(A) are to be exercised at night, the applicant shall have received 4 hours of dual instruction in aeroplanes in night flying, including take-offs, landings, and 1 hour of navigation.

(c) SKILL TEST. The requirements for the skill test for the CPL(A) category are included in IS 2.3.6.2 for CPL(A).

Note 1: The instrument experience specified in 2.3.6.2(a)(2)(iii) and 2.3.6.2(b)(x) and the night flying experience and dual instruction specified in 2.3.6.2(a)(2)(iv) and 2.3.6.1(g) do not entitle the holder of a commercial pilot licence to pilot aeroplanes under IFR.

Note 2: Training can be performed by an individually authorised flight instructor, by an authorised flight instructor in a flying club, or in an Approved Training Organisation.

2.3.6.3 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – HELICOPTER CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(H) shall have completed not less than 150 hours of flight time, or 100 hours if completed during an integrated course of approved training provided by an ATO under Part 3 of these regulations, as a pilot of helicopters, of which 10 hours may have been completed in an FSTD.

(2) The applicant for a CPL(H) shall have completed in helicopters not less than:

(i) 35 hours as PIC;

(ii) 10 hours of cross-country flight time as PIC including a cross-country flight, in the course of which full-stop landings at two different aerodromes shall be made;

(iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and

(iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including five take-offs and five landings as PIC.

(3) The holder of a pilot licence in another category may be credited towards the 150 hours of flight time as follows:

(i) 20 hours as PIC holding a PPL(A) in aeroplanes; or

(ii) 50 hours as PIC holding a CPL(A) in aeroplanes.

(4) The applicant for a CPL(H) shall hold a PPL(H) under Part 2.

(b) FLIGHT INSTRUCTION.

(1) The applicant for a CPL(H) shall have received and logged not less than 30 hours of dual instruction in helicopters from an authorised instructor on the subjects listed in IS 2.3.6.3 for CPL(H).

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the helicopter by external visual reference;

(v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind, and sloping ground; steep approaches;

(vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(viii) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;

(ix) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(x) Cross-country flying using visual reference, dead reckoning, and radio navigation aids; diversion procedures;

(xi) Abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing;

(xii) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

(xiii) Radiotelephony procedures and phraseology; and

(xiv) As further specified in the IS 2.3.6.3 for CPL(H).

(3) If the privileges of the licence are to be exercised at night, the applicant shall have received 4 hours of dual instruction in helicopters in night flying, including take-offs, landings, and 1 hour of navigation.

(c) SKILL TEST. The requirements for the skill test for the CPL(H) category are included in the IS 2.3.6.3 for CPL(H).

Note: The instrument experience specified in 2.3.6.2(a)(2)(iii) and 2.3.6.3(b)(ix) and the night flying experience and dual instruction specified in 2.3.6.2(a)(2)(iv) and 2.3.6.3 do not entitle the holder of a commercial pilot licence to pilot helicopters under IFR.

Note: Training can be performed by an individually authorised flight instructor, by an authorised flight instructor in a flying club, or in an Approved Training Organisation.

2.3.6.4 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – POWERED-LIFT CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(PL) shall have completed not less than 200 hours of flight time, or 150 hours if completed during a course of approved training provided for in an ATO under Part 3 of these regulations, as a pilot of aircraft. The Authority may determine whether experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.

(2) The applicant for a CPL(PL) shall have completed in a powered-lift aircraft not less than:

(i) 50 hours as PIC;

(ii) 10 hours of cross-country flying as PIC including a cross-country flight totalling not less than 540 km (300 NM), in the course of which full-stop landings at two different aerodromes shall be made;

(iii) 10 hours of instrument instruction of which not more than 5 hours may be instrument ground time; and

(iv) If the privileges are to be exercised at night, 5 hours of night flight including five take-offs and landings as PIC.

(3) When the applicant for a CPL(PL) has flight time as a pilot of aircraft in other categories, the Authority may determine whether such experience is acceptable and, if so, the extent to which the flight time requirements in paragraph 2.3.6.4(a) of this subsection may be reduced.

(b) FLIGHT INSTRUCTION. The applicant for a CPL(PL) shall have received dual instruction in powered-lift from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;

(3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(4) Control of the powered-lift by external visual reference;

(5) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(6) Ground manoeuvring and run-ups; hover and rolling take-offs and climbout; hover and rolling approach and landings – normal, out of wind, and sloping ground; steep approaches;

(7) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(8) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;

(9) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(10) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids, including a flight of at least 1 hour;

(11) Emergency operations, including simulated powered-lift equipment malfunctions; power of reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable; and

(12) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures; and

(13) Radiotelephony procedures and phraseology.

(c) SKILL TEST. The requirements for the skill test for the CPL(PL) category are included in the IS 2.3.6.4 for CPL(PL).

Note: The instrument experience specified in 2.3.6.4(a)(2)(iii) and 2.3.6.4(b)(9) and the night flying experience and dual instruction specified in 2.3.6.4(a)(2)(iv) and 2.3.6.1(g) do not entitle the holder of a commercial pilot licence to pilot powered-lifts under IFR.

2.3.6.5 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – AIRSHIP CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(AS) shall have completed not less than 200 hours of flight time as a pilot.

(2) The applicant for a CPL(AS) shall have completed not less than:

(i) 50 hours as a pilot in airships;

(ii) 30 hours as PIC or PIC under supervision in airships, to include not less than:

(A) 10 hours of cross-country flight time; and

(B) 10 hours of night flight;

(iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and

(iv) 20 hours of flight training in airships on the areas of operation listed in paragraph 2.3.6.5(b) of this subsection.

(b) FLIGHT INSTRUCTION. The applicant for a CPL(AS) shall have received dual instruction in airships from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;

(3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures, and signals used;

(5) Control of the airship by external visual reference;

(6) Recognition of leaks;

(7) Normal take-offs and landings;

(8) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;

(9) Flight under IFR;

(10) Cross-country flying using visual reference, dead reckoning, and, where applicable, radio navigation aids;

(11) Emergency operations, including simulated airship equipment malfunctions;

(12) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

and

(13) Radiotelephony procedures and phraseology.

(c) SKILL TEST. The requirements for the skill test for CPL(AS) are included in IS 2.3.6.5 for CPL(AS).

2.3.6.6 RESERVED.

2.3.6.7 RESERVED.

2.3.7 MULTI-CREW PILOT LICENCE – AEROPLANE

Note: The holder of an MPL is authorised by 2.3.7.1 of Part 2 to act as CP of an aeroplane required to be operated with a CP. Such holder will be eligible to obtain an ATPL appropriate to the aeroplane category, after fulfilling the requirements for that licence, to be restricted to multi-crew operations unless the requirements of 2.3.7.1(g)(1)(i), 2.3.7.1(g)(2), and 2.3.7.1(g)(3), as appropriate, are met.

2.3.7.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an MPL(A) shall be at least 18 years of age.

(b) MEDICAL FITNESS. The applicant for an MPL(A) shall hold a current Class 1 medical certificate issued under Part 2.

(c) COMPETENCIES. The applicant shall satisfactorily demonstrate the competencies identified in an adapted competency model to perform as CP of a turbine-powered air transport aeroplane certificated for operation with a minimum crew of at least two pilots. The adapted competency model shall be approved by the Authority, using as a basis the ICAO aeroplane pilot competency framework contained in ICAO Doc 9868, *Procedures for Air Navigation Services – Training (PANS-TRG)*.

Note 1: Knowledge, skills, and attitudes underpin these competencies as described in ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG)*. The knowledge and skills described in 2.3.7.1(d) and 2.3.7.1(f) of this part provide minimum requirements for the issuance of the MPL.*

Note 2: *The competencies of the approved adapted competency model provide individual and team countermeasures for the application of threat and error management. Guidance on threat and error management are contained in* ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG).

(d) KNOWLEDGE.

(1) The applicant for an MPL(A) shall:

(i) Meet the requirements specified in paragraph 2.3.8.1(c) of Part 2 for the ATPL(A); and

(ii) Meet the additional requirements underpinning the approved adapted competency model including fully integrated knowledge and skill requirements.

(2) The applicant for an MPL(A) knowledge test shall:

(i) Have received an endorsement for the knowledge test from an authorised instructor who:

(A) Conducted the training on the knowledge subjects; and

(B) Certifies that the person is prepared for the required knowledge test.

(ii) Pass the required written knowledge test on the knowledge areas specified in paragraph 2.3.8.1(c) of Part 2.

Note: Depending upon the particular MPL(A) curriculum, the knowledge test for the MPL(A) may need to be an integrated test in that it contains elements of PPL, CPL, IR, and/or ATPL knowledge.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. The applicant for an MPL(A) shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for an MPL(A) shall demonstrate the underpinning skills required for the competencies of the approved adapted competency model as pilot flying and pilot monitoring, to the level required to perform as a CP of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR.

(g) PRIVILEGES. The privileges of the holder of an MPL(A) shall be as follows:

(1) Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an MPL(A) shall be:

(i) To exercise all the privileges of the holder of a PPL in the aeroplane category provided the private pilot experience requirements of 2.3.5.2 of Part 2 have been met;

(ii) To exercise the privileges of the IR in a multi-crew operation; and

(iii) To act as CP of an aeroplane required to be operated with a CP.

(2) Before exercising the privileges of the IR in a single-pilot operation in aeroplanes, the licence holder shall have demonstrated an ability to act as PIC in a single-pilot operation exercised by reference solely to instruments and shall have met the IR skill requirement specified in 2.3.9.2 of Part 2 appropriate to the aeroplane category.

(3) Before exercising the privileges of a CPL in a single-pilot operation in aeroplanes, the licence holder shall have:

(i) Completed in aeroplanes 70 hours, either as PIC or made up of not less than 10 hours as PIC and the necessary additional flight time as PIC under supervision;

(ii) Completed 20 hours of cross-country flight time as PIC, or made up of not less than 10 hours as PIC and 10 hours as PIC under supervision, including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made; and

(iii) Met the requirements for the CPL specified in paragraphs 2.3.6.1(c), 2.3.6.1(f), and 2.3.6.2(a)(2) of Part 2 (with the exception of 2.3.6.2(a)(2)(i)) appropriate to the aeroplane category.

Note 1: When a Contracting State grants single-pilot operation privileges to the holder of an MPL(A), it can document the privileges through an endorsement of the MPL(A) or through the issuance of a CPL in the aeroplane category.

Note 2: Certain privileges of the licence are curtailed by licence holders when they reach their 65th birthday.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. An MPL(A) that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the MPL(A) has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the MPL(A) skill test specified in IS 2.3.7.2 for MPL(A).

2.3.7.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE MULTI-CREW PILOT LICENCE – AEROPLANE CATEGORY

(a) EXPERIENCE. The applicant for an MPL(A) shall have completed an approved training course not less than 240 hours which includes actual and simulated flight as pilot flying and pilot monitoring.

(1) The flight experience in actual flight shall include at least the experience requirements of 2.3.8.2(a) of Part 2 for the ATPL(A), upset prevention and recovery training, night flying, and flight by reference solely to instruments.

(2) In addition to meeting the provisions of paragraph 2.3.7.2(a)(1) of this subsection, the applicant shall have gained, in a turbine-powered aeroplane certificated for operations with a minimum crew of at least two pilots, or in an FSTD approved for that purpose by the Authority, the experience necessary to achieve the final competency standard of the approved adapted competency model, as defined in the IS 2.3.7.2 for MPL(A).

(b) FLIGHT INSTRUCTION. The applicant shall have:

(1) Completed a course of approved training covering the experience requirements in 2.3.7.1(d)(1) of Part 2; and

(2) Received dual flight instruction in order to achieve the final competency standard in all the competencies of the approved adapted competency model, for the issue of the MPL.

Note: The competencies of the approved adapted competency model provide individual and team countermeasures for the application of threat and error management. Guidance on threat and error management is contained in ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG).

(c) SKILL TEST. The requirements for the skill test for MPL(A) are included in the IS 2.3.7.2 for MPL(A).

2.3.8 AIRLINE TRANSPORT PILOT LICENCE

2.3.8.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an ATPL shall be at least 21 years of age.

(b) MEDICAL FITNESS. The applicant for an ATPL shall hold a current Class 1 medical certificate issued under Part 2.

(c) KNOWLEDGE. The applicant for an ATPL shall have received and logged ground training from an authorised instructor on the following subjects appropriate to the privileges of the ATPL and to the category of aircraft intended to be included on the licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the holder of an ATPL; rules of the air; appropriate ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) General characteristics and limitations of electrical, hydraulic, pressurisation, and other aircraft systems; flight control systems, including autopilot and stability augmentation;

(ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;

(iii) Operating procedures and limitations of appropriate aircraft; effects of atmospheric conditions on aircraft performance in accordance to the relevant operational information from the flight manual;

(iv) Use and serviceability checks of equipment and systems of the relevant category of aircraft;

(v) Flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments and electronic display units;

(vi) Maintenance procedures for airframes, systems, and powerplants of appropriate aircraft;

(vii) For helicopter and powered-lift, transmission (power-trains), where applicable;

(3) FLIGHT PERFORMANCE, PLANNING AND LOADING.

(i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(ii) Use and practical application of take-off, landing, and other performance data, including procedures for cruise control;

(iii) Pre-flight and en route operational flight planning; preparation and filing of ATS flight plans; appropriate ATS procedures; altimeter setting procedures;

(iv) In the case of helicopter or powered-lift, effects of external loading on handling;

(4) HUMAN PERFORMANCE.

(i) Human performance, including principles of threat and error management;

(5) METEOROLOGY.

(i) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts; and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

(iii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(iv) In the case of aeroplane and powered-lift, practical high-altitude meteorology, including interpretation and use of weather reports, charts, and forecasts; jet streams;

(6) NAVIGATION.

(i) Air navigation, including the use of aeronautical charts, radio navigation aids, and area navigation systems; specific navigation requirements for long-range flights;

(ii) Use, limitation, and serviceability of avionics and instruments necessary for the control and navigation of aircraft;

(iii) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight; identification of radio navigation aids;

(iv) Principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

(7) OPERATIONAL PROCEDURES.

(i) Application of threat and error management to operational performance;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iii) Precautionary and emergency procedures; safety practices;

(iv) Operational procedures for carriage of freight and dangerous goods;

(v) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

(vi) In the case of helicopter and, if applicable, powered-lift, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures associated with flight under VMC;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate aircraft category; and

(9) RADIOTELEPHONY.

(i) Radiotelephony procedures and phraseology; action to be taken in case of communication failure.

(10) In addition to the above subjects, the applicant for airline transport pilot licence applicable to the aeroplane or powered-lift category shall have met the knowledge requirements for the instrument rating as specified in 2.3.9.1(c) of Part 2.

(d) KNOWLEDGE TESTING. The applicant for an ATPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required written knowledge test on the knowledge subjects listed in paragraph 2.3.8.1(c)(2) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. The applicant for an ATPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for an ATPL shall have:

(1) Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and

(2) Demonstrated by passing a skill test the ability to perform, as PIC of an aircraft of the appropriate category required to be operated with a CP, the following procedures and manoeuvres:

(i) Pre-flight procedures, including the preparation of the operational flight plan and filing of the ATS flight plan;

(ii) Normal flight procedures and manoeuvres during all phases of flight;

(iii) Abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems, and airframe;

(iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation, and use of checklists;

(v) In the case of the aeroplane and powered-lift, procedures and manoeuvres for instrument flight as described in 2.3.8 of Part 2, including simulated engine failure; and

(vi) In the case of aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in this paragraph as PIC in a multi-engine aircraft.

(3) Demonstrated, by passing a skill test, the ability to perform the areas of operation described in the applicable IS 2.3.8.2, IS 2.3.8.3 or IS 2.3.8.4 with a degree of competency appropriate to the privileges granted to the holder of an ATPL, and to:

(i) Operate the aeroplane within its limitations;

(ii) Recognise and manage threats and errors;

(iii) Smoothly and accurately, manually control the aircraft within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;

(iv) Operate the aircraft in the mode of automation appropriate to the phase of flight and

to maintain awareness of the active mode of automation;

(v) Perform, in an accurate manner, normal, abnormal, and emergency procedures in all phases of flight;

(vi) Exercise good judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and

(vii) Communicate effectively with the other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to SOPs and use of checklists.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an ATPL shall be:

(1) To exercise all the privileges of the holder of a PPL and CPL in an aircraft within the appropriate aircraft category and class, if applicable;

(2) In the case of the aeroplane and powered-lift categories, to exercise the privileges of the holder of an IR; and

(3) To act as PIC and CP, in commercial air transportation, of an aircraft within the appropriate category and class, if applicable.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years. For renewal or reissue, see 2.2.1.7 of Part 2.

(i) RENEWAL. An ATPL that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience and proficiency are current.

(j) RE-ISSUE. If the ATPL has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the airline transport pilot skill test.

2.3.8.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE ATPL – AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for an ATPL(A) shall have completed not less than 1500 hours of flight time as a pilot of aeroplanes, of which a maximum of 100 hours may have been completed in an FSTD. The applicant shall have completed in aeroplanes not less than:

(i) 500 hours, either as PIC or made up by not less than 100 hours as PIC and the necessary additional flight time as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and

(iv) 100 hours of night flight as PIC or CP.

(2) Holders of a CPL(H) will be credited with 50 per cent of their helicopter flight time as PIC towards the flight time required in paragraph 2.3.8.2(a)(1).

(3) The applicant for an ATPL(A) shall be the holder of a CPL(A) with instrument and multi-engine rating issued under Part 2.

(b) FLIGHT INSTRUCTION. The applicant for an ATPL(A) shall have received the dual flight instruction required for the issue of the CPL and the IR.

(c) SKILL TEST. The requirements for the skill test for ATPL(A) are included in IS 2.3.8.2 for ATPL(A).

Note: The aeroplane upset prevention and recovery training may be integrated in the type rating programme or may be conducted immediately after, as an additional module

2.3.8.3 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE ATPL – HELICOPTER CATEGORY

(a) EXPERIENCE.

(1) The applicant for an ATPL(H) shall have completed not less than 1000 hours of flight time as a pilot of helicopters, of which a maximum of 100 hours may have been completed in an FSTD. The applicant shall have completed in helicopters not less than:

(i) 250 hours, either as PIC or made up by not less than 100 hours as PIC and the necessary additional flight time as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(iii) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time; and

(iv) 50 hours of night flight as PIC or CP.

(2) Holders of a CPL(A) will be credited with 50 per cent of their aeroplane flight time as PIC towards the flight time required in 2.3.8.3(a)(1) of this subsection.

(3) The applicant for an ATPL(H) shall be the holder of a CPL(H) issued under Part 2.

(b) FLIGHT INSTRUCTION. The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.

(c) SKILL TEST. The requirements for the skill test for ATPL(H) are included in the IS 2.3.8.3 for ATPL(H).

2.3.8.4 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE ATPL – POWERED-LIFT CATEGORY

(a) EXPERIENCE.

(1) The applicant for an ATPL(PL) shall have completed not less than 1500 hours of flight time as a pilot of powered-lift. The Authority may determine whether experience completed under instruction in an FSTD is acceptable as part of the total time of 1500 hours. The applicant shall have completed in powered-lift not less than:

(i) 250 hours, either as PIC or made up by not less than 100 hours as PIC and the necessary additional flight time as CP performing, under the supervision of the PIC, the duties and functions of PIC, provided that the method of supervision employed is acceptable to the Authority.

(ii) 100 hours of cross-country flight time, of which not less than 50 hours shall be as PIC or as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority.

(iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time.

(2) 25 hours of night flight as PIC or CP.

(3) The Authority may determine if pilot flight time in other aircraft categories may be credited towards meeting the 1500-hour flight time in paragraph 2.3.7.4(a)(1) of this subsection.

(4) The applicant for an ATPL(PL) shall be the holder of a CPL(PL) issued under Part 2.

(b) FLIGHT INSTRUCTION. The applicant for an ATPL(PL) shall have received the dual flight instruction required for the issue of the CPL(PL) and for the issue of the IR.

(c) SKILL TEST. The requirements for the skill test for ATPL(PL) are included in the IS 2.3.8.4 for ATPL(PL).

2.3.9 INSTRUMENT RATING

2.3.9.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an IR shall be at least 17 years of age.

(b) MEDICAL FITNESS. The applicant for an IR shall hold either a Class 1 or 2 medical certificate issued under Part 2, as appropriate for the level of licence held. The applicant for an IR holding a PPL shall have established the applicant's hearing acuity on the basis of compliance with the hearing requirements for the issue of a Class 1 medical certificate.

(c) KNOWLEDGE. The applicant for an IR shall receive and log ground training from an authorised instructor on the following subjects:

(1) AIR LAW.

(i) Rules and regulations relevant to flight under IFR; related ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Use, limitation, and serviceability of avionics, electronic devices, and instruments necessary for the control and navigation of aeroplanes under IFR and in instrument meteorological conditions; use and limitations of automation;

(ii) Compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

(3) FLIGHT PERFORMANCE AND PLANNING FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Pre-flight preparations and checks appropriate to flight under IFR;

(ii) Operational flight planning; preparation and filing of ATS flight plans under IFR; altimeter setting procedures;

(4) HUMAN PERFORMANCE FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Human performance relevant to instrument flight in aircraft;

(ii) Principles of threat and error management;

(5) METEOROLOGY FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Application of aeronautical meteorology; interpretation and use of reports, charts, and forecasts; codes and abbreviations; use of, and procedures for obtaining,

meteorological information; altimetry;

(ii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(iii) In the case of helicopter and powered-lift, effects of rotor icing;

(6) NAVIGATION FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Practical air navigation using navigation systems;

(ii) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight; identification of navigation sources;

(7) OPERATIONAL PROCEDURES FOR THE AIRCRAFT BEING SOUGHT.

(i) Application of threat and error management to operational principles;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en route, descent, and approach;

(iii) Precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria; and

(8) RADIOTELEPHONY.

(i) Communication procedures and phraseology as applied to aircraft operations under IFR; action to be taken in case of communication failure.

(d) KNOWLEDGE TESTING. An applicant for an IR shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test on the knowledge subjects listed in paragraph 2.3.9.1(c) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for an IR shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an IR shall be to pilot an aircraft of the appropriate category under IFR. Before exercising the privileges on multi-engine aircraft, the holder of the rating shall have complied with the requirements of paragraph (g)(3).

(g) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of an IR is 1 year.

(h) RENEWAL.

(1) For the renewal of a single-engine IR, the applicant shall, within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the IS 2.3.9.2 for the IR.

(2) For the renewal of a multi-engine IR, the applicant shall, within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.9.2 for the IR.

(3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(i) RE-ISSUE. If the IR has expired, the applicant shall:

(1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test on the subjects listed in IS 2.3.9.2 for the IR.

Note: The IR is included in the ATPL(A), ATPL(PL), MPL, and the CPL(AS). An Authority may combine the IR requirements with other licences

2.3.9.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE INSTRUMENT RATING

(a) EXPERIENCE

(1) The applicant for an IR shall hold a pilot licence with an aircraft category and, if applicable, a class rating for the IR sought.

(2) The applicant shall have completed not less than:

(i) 50 hours of cross-country flight time as PIC of aircraft in categories acceptable to the Authority, of which not less than 10 hours shall be in the aircraft category being sought; and

(ii) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where an FSTD is used, may be instrument ground time. The ground time shall be under the supervision of an authorised instructor.

(b) FLIGHT INSTRUCTION.

(1) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in paragraph 2.3.9.2(a)(2)(ii) of this subsection while receiving and logging dual instruction in aircraft from an authorised FI.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an IR:

(i) Pre-flight procedures, including the use of the flight manual or equivalent document and appropriate ATS documents in the preparation of an IFR flight plan;

(ii) Pre-flight inspection, use of checklists, taxiing, and pre-take-off checks;

(iii) Procedures and manoeuvres for IFR operation under normal, abnormal, and emergency conditions covering at least:

(A) Transition to instrument flight on take-off;

(B) Standard instrument departures and arrivals;

(C) En route IFR procedures and navigation;

(D) Holding procedures;

(E) Instrument approaches to specified minima;

(F) Missed approach procedures; and

(G) Landings from instrument approaches;

(iv) In-flight manoeuvres and particular flight characteristics.

(3) If the privileges of the IR are to be exercised on multi-engine aircraft, the applicant shall have received dual instrument flight instruction in such an aircraft from an authorised FI. The instructor shall ensure that the applicant has operational experience in the operation of the aircraft solely by reference to instruments with one engine inoperative or simulated inoperative.

(4) SKILL TEST. The applicant for an IR shall have: Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; Demonstrated, by passing a skill test, the ability to perform the areas of operation described in the IS 2.3.9.2 for IR with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:

(i) Recognise and manage threats and errors;

(ii) Operate the aircraft within its limitations;

(iii) Complete all manoeuvres with smoothness and accuracy;

(iv) Exercise good judgement and airmanship;

(v) Apply aeronautical knowledge;

(vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured;

(vii) Understand and apply crew coordination and incapacitation procedures; and

(viii) Communicate effectively with the other flight crew members.

(5) Demonstrated, by passing a skill test, the ability to operate multi-engine aircraft solely by reference to instruments with one engine inoperative, or simulated inoperative, described in the IS 2.3.9.2 for IR, if the privileges of the IR are to be exercised on such aircraft.

(c) The skill test and proficiency check for the IR is included in IS 2.3.9.2 for the IR.

2.3.10 INSTRUCTORS FOR PILOT LICENSING

2.3.10.1 GENERAL REQUIREMENTS

(a) Applicability.

(1) This section prescribes the requirements for the issuance of instructor licences, ratings, or authorisations; the conditions under which those ratings and authorisations are necessary; and the privileges and limitations on those ratings and authorisations.

(2) All instructors shall read, speak, write, and understand the language of Curaçao and English, if required.

(3) The following instructor licences, ratings, and authorisations are issued under Part 2:

(i) FI licence;

(ii) GI licence, with basic, advanced, and instrument ratings; and

(iii) Instructor authorisation for flight simulation training.

2.3.10.2 FLIGHT INSTRUCTOR LICENCE REQUIREMENTS, SKILL TEST, AND PROFICIENCY CHECK

(a) AGE. The applicant for an FI licence shall be of the appropriate age for the underlying licence to be held.

(b) MEDICAL FITNESS. The applicant for an FI licence shall have a Class 1 medical certificate.

(c) KNOWLEDGE. The applicant for an FI licence shall:

(1) Have received and logged training from an authorised instructor;

(2) Pass an FI knowledge test on:

(i) The aeronautical knowledge areas for a student pilot authorisation; private, commercial, and airline transport pilot licences applicable to the aircraft category for

which FI privileges are sought; and

(ii) The aeronautical knowledge areas for the IR applicable to the category for which instrument FI privileges are sought.

(iii) Meet the requirements for fundamentals of knowledge instruction as listed in 2.2.6 of Part 2.

(d) EXPERIENCE. The applicant for an FI licence shall hold a licence with the aircraft category and, if applicable, class and/or type rating appropriate to the FI rating sought, as follows:

(1) For an instructor licence in the aeroplane category – hold either a CPL(A) or an ATPL(A) with IR and appropriate class and/or type ratings;

(2) For an instructor licence in the powered-lift category – hold either a CPL(PL) or an ATPL(PL) with IR and, as applicable, class or type rating;

(3) For an instructor licence in the helicopter category – hold either a CPL(H) or an ATPL(H) and any applicable class or type rating;

(4) For an instructor licence in the airship category – hold a CPL(AS) and any applicable ratings;

(5) For an instructor IR licence – hold an IR in the appropriate category of aircraft.

(e) FLIGHT INSTRUCTION. The applicant for an FI licence shall have:

(1) Received flight instruction from an authorised instructor in flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(2) Practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

(f) SKILL. The applicant for an FI licence shall:

(1) Receive a logbook endorsement from an authorised instructor to indicate that the applicant is proficient on the areas of operation listed in paragraph 2.3.10.2(f)(2) of this subsection, appropriate to the FI rating sought;

(2) Pass the required skill test that is appropriate to the FI licence sought on the areas of operation described in the applicable IS 2.3.10.2 in an:

(i) Aircraft that is representative of the category of aircraft and, if applicable, class and/or type for the aircraft rating sought; or

(ii) Approved FSTD that is representative of the category and, if applicable, class and/or type of aircraft for the licence and rating sought, and used in accordance with an approved course at an ATO certified under Part 3 of these regulations

(g) PRIVILEGES, LIMITATIONS AND QUALIFICATIONS.

(1) An FI is authorised within the limitations of that person's FI licence, and pilot licence and ratings, to give training and endorsements that are required for and relate to:

(i) A student pilot authorisation;

(ii) A pilot licence;

(iii) An FI licence;

(iv) A GI licence;

(v) An aircraft category rating;

(vi) An aircraft class rating;

(vii) An IR;

(viii) A proficiency check or recency of experience requirement;

(ix) A knowledge test; and

(x) A skill test.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of instructor licence is 2 years.

(i) RENEWAL. An FI licence that has not expired may be renewed for an additional 24 calendar months if the holder:

(1) Passes a skill test for:

(i) Renewal of the FI licence; or

(ii) An additional FI rating; or

(2) Presents to an Authority inspector:

(i) A record of training students showing that, during the preceding 24 calendar months, the FI has endorsed at least five students for a skill test for a licence or rating, and at least eighty percent (80%) of those students passed that test on the first attempt;

(ii) A record showing that, within the preceding 24 calendar months, the FI has served as a company check pilot, Chief Flight Instructor, company CP, or FI in an operation certificated under Part 9 of these regulations, or in a position involving the regular evaluation of pilots; or

(iii) A graduation certificate showing that the pilot has successfully completed an approved FI refresher course consisting of ground training or flight training, or both, within the 90 days preceding the expiration month of his or her FI licence.

(3) If an FI accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her FI licence:

(i) The Authority will consider that the FI accomplished the renewal requirement in the month due; and

(ii) The Authority will renew the current FI rating for an additional 24 calendar months from its expiration date.

(4) An FI may accomplish the skill test required by this subsection in an approved course conducted by an ATO certificated under Part 3 of these regulations.

(j) RE-ISSUE. If the FI licence has expired, the applicant shall

(1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the prescribed skill test.

(k) Additional FI licences. An applicant for an additional FI licence shall meet the requirements listed in 2.3.10.2 of this subsection that apply to the FI rating sought.

(l) FI Records. An FI shall:

(1) Sign the logbook of each person to whom that instructor has given flight training or ground training;

(2) Maintain a record in a logbook or separate document that contains the following:

(i) The name of each person whose logbook or student pilot licence that instructor has endorsed for solo flight privileges, and the date of the endorsement; and

(ii) The name of each person that instructor has endorsed for a knowledge test or skill test, and a record of the kind of test, the date, and the results; and

(3) Retain the records required by this subsection for at least 3 years.

(m) FI limitations and qualifications. The holder of an FI licence shall observe the following limitations and qualifications:

(1) Hours of training. In any 24-consecutive-hour period, an FI may not conduct more than 8 hours of flight training.

(2) Required licence and ratings. An FI may not conduct flight training in any aircraft for which the FI does not hold a pilot licence and FI licence with the applicable category and, if applicable, class or type rating.

(3) For instrument flight training or for training for a type rating not limited to VFR, an appropriate IR on his or her FI rating and pilot licence.

(4) Limitations on endorsements. An FI may not endorse the following:

(i) A student pilot's licence or logbook for solo flight privileges, unless that FI has:

(A) Given that student the flight training required for solo flight privileges required by this subsection;

(B) Determined that the student is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the student's logbook that the instructor considers necessary for the safety of the flight;

(C) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and

(D) Endorsed the student pilot's logbook for the specific make and model of aircraft to be flown.

(ii) A student pilot's licence and logbook for a solo cross-country flight, unless that FI has determined that:

(A) The student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and

(B) The student has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown.

(iii) A student pilot's licence and logbook for solo flight in a Class B airspace area or at an aerodrome within Class B airspace unless that FI has:

(A) Given that student ground and flight training in that Class B airspace or at that aerodrome; and

(B) Determined that the student is proficient to operate the aircraft safely.

Note: Class B airspace as defined in ICAO Annex 11: 2.6.1 is IFR and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other.

(iv) The logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements of 8.4.1.10 of these regulations; or

(v) The logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of 8.4.1.11 of these regulations.

(5) Training in a multi-engine aeroplane or a helicopter. An FI may not give training required for the issuance of a licence or rating in a multi-engine aeroplane or a helicopter unless that FI has at least 5 flight hours of PIC time in the specific make and model of multi-engine aeroplane or helicopter, as appropriate.

(6) Qualifications of the FI for training first-time FI applicants. No FI may provide instruction to another pilot who has never held an FI licence unless that FI:

(A) Holds a current ground or FI licence with the appropriate rating, has held that licence for at least 24 months, and has given at least 40 hours of ground training; or

(B) Holds a current ground or FI licence with the appropriate rating and has given at least 100 hours of ground training in a course which has been approved by the Authority; and

(C) Meets the eligibility requirements prescribed in 2.2.6 of Part 2;

(D) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as an FI; and

(7) Prohibition against self-endorsements. An FI may not make any self-endorsement for a licence, rating, flight review, authorisation, operating privilege, skill test, or knowledge test that is required by Part 2.

(8) CAT II and CAT III instruction. An FI may not give training in CAT II or CAT III operations unless the FI has been trained and tested in CAT II or CAT III operations, as applicable.

(n) The skill test and proficiency check for FI ratings in the categories of aeroplane, helicopter, powered-lift, airship, balloon, and glider, as well as IR (aeroplane, helicopter, and powered-lift) and additional type ratings, are included in the applicable IS 2.3.10.2

2.3.10.3 INSTRUCTOR AUTHORISATION FOR FLIGHT SIMULATION TRAINING

(a) Current and former holders of professional pilot licences having instructional experience can apply for an authorisation to provide flight instruction in an FSTD, provided the applicant has at least 1 year experience as an instructor in FSTDs.

(1) SKILL. The applicant shall have demonstrated in a skill test, in the category and class or type of aircraft for which instructor authorisation privileges are sought, the ability to instruct in those areas in which ground instruction is to be given.

(2) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an authorisation are to carry out instruction in an FSTD for the issue of a class or type rating in the appropriate category of aircraft.

(3) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of an instructor authorisation for flight simulation training is 1 year.

(4) RENEWAL. Renewal of the authorisation requires the successful completion of a proficiency check.

(5) REISSUE. If the authorisation has expired, the applicant shall complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorisation privileges are sought.

2.3.10.4 GROUND INSTRUCTOR LICENCE

(a) AGE. The applicant for a GI licence shall be at least 18 years of age.

(b) KNOWLEDGE. The applicant for a GI licence shall:

(1) Receive and log training from an authorised instructor and pass a knowledge test on the aeronautical knowledge areas appropriate to the aircraft category for the licence and ratings below, as applicable:

(i) For a Basic Ground Instructor (BGI) rating, the knowledge for a student and PPL as listed in Part 2;

(ii) For an Advanced Ground Instructor (AGI) rating, the student, private, commercial, and airline transport pilot knowledge areas as listed in Part 2; and

(iii) For an Instrument Ground Instructor (IGI) rating, the knowledge for the IR as listed in Part 2.

(2) Meet the requirements for fundamentals of instructing as listed in 2.2.6 of Part 2.

(c) PRIVILEGES. The holder of a GI licence may exercise the privileges appropriate to the licence and rating held.

(1) A person who holds a GI licence with a basic rating is authorised to provide:

(i) Ground training in the aeronautical knowledge areas required for the issuance of a student pilot authorisation or PPL or associated ratings;

(ii) Ground training required for a private pilot flight review; and

(iii) A recommendation for a knowledge test required for the issuance of a PPL.

(2) A person who holds a GI licence with an advanced rating is authorised to provide:

(i) Ground training in the aeronautical knowledge areas required for the issuance of any licence or rating;

(ii) Ground training required for any flight review; and

(iii) A recommendation for a knowledge test required for the issuance of any licence.

(3) A person who holds an IGI rating is authorised to provide:

(i) Ground training in the aeronautical knowledge areas required for the issuance of an IR;

(ii) Ground training required for an instrument proficiency check; and

(iii) A recommendation for a knowledge test required for the issuance of an IR.

(4) A person who holds a GI licence is authorised, within the limitations of the licence and ratings on the GI licence, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in paragraphs 2.3.9.4(c)(1) through (3) of this subsection.

(d) VALIDITY. The validity period for a GI licence is 1 year.

(e) RENEWAL. The applicant for renewal of a GI licence shall provide to the Authority satisfactory evidence of at least 3 months of service as a GI within the past 12 months.

(f) RE-ISSUE. If the GI licence has expired, the applicant for reissuance shall complete refresher training acceptable to the Authority and shall receive an endorsement from a licensed ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in Part 2 for the licence and rating.

2.3.11 DESIGNATED PILOT EXAMINERS

2.3.11.1 REQUIREMENTS AND SKILL TEST FOR A DPE

(a) AGE. The applicant for a DPE shall be at least 21 years of age.

(b) MEDICAL. The applicant for a DPE shall have a Class 1 medical certificate.

(c) GENERAL ELIGIBILITY: The applicant for a DPE shall:

(1) Hold at least the licence and/or the class/type ratings, as applicable, for which examining authority is sought;

(2) Hold at least the FI ratings for which examining authority is sought or be serving in a comparable position as an air operator check pilot or comparable position in an ATO;

(3) Have a reputation for integrity and dependability in the industry and the community;

(4) Have a good record as a pilot and FI with regard to accidents, incidents, and violations; and

(5) Have pilot and instructor licence/ratings that have never been revoked for falsification or forgery.

(d) KNOWLEDGE. The applicant for a DPE shall pass a pre-designation knowledge test in the areas appropriate to the category of aircraft for which designation is sought.

(e) SKILL TEST. The applicant for a DPE shall pass a skill test conducted by an inspector of the Authority who holds a current and valid licence with the appropriate category and, if applicable, class and type ratings on the areas of operation contained in the IS 2.3.11.1 for the applicable designation.

(f) MAINTAINING CURRENCY. After designation, a DPE shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority; and

(2) Maintaining a current and valid:

(i) Pilot licence and, if applicable, class/type ratings appropriate to the designation;

(ii) FI licence and ratings applicable to the designation; and

(iii) Class 1 medical certificate.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the examiner's designation are to conduct skill tests and proficiency checks for a licence and rating(s) as listed on the DPE's certificate of designation and identification card.

(h) VALIDTY. Subject to compliance with the requirements specified in Part 2, the validity period of an examiner's designation is 3 years.

(i) RENEWAL.

(1) Renewal will be at the discretion of the Authority.

(2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in the IS 2.3.11.1 or the applicable designation.

(j) ADDITIONAL DESIGNATIONS. When the Authority deems it necessary for a DPE to receive additional designations, the DPE:

(1) Shall meet all the requirements in Part 2 for the designation;

(2) Need not take an additional knowledge test, provided the designation is within the same aircraft category.

(k) The requirements for the designation of a pilot examiner are included in the applicable IS 2.3.11.1.

2.3.11.2 EXPERIENCE REQUIREMENTS FOR PRIVATE PILOT EXAMINER

(a) Experience PPE. – Aeroplane Category. The examiner applicant shall have at least:

(1) A CPL(A), appropriate class rating(s), and an IR(A);

(2) A valid FI licence with an aeroplane category and appropriate class rating(s);

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 300 hours in the class of aeroplane for which designation is sought; and

(iii) 100 hours in aeroplanes at night.

(4) 500 hours as an FI in aeroplane, including at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought.

(b) Experience PPE – Helicopter Category. The examiner applicant shall have at least:

(1) A CPL(H) and appropriate class rating(s);

(2) A valid FI licence with a helicopter category and appropriate class rating(s);

(3) 1000 hours as PIC, including at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year; and

(ii) 250 hours in helicopters, as appropriate for the designation sought.

(4) 200 hours as a FI in helicopters, as appropriate for the designation sought.

(c) Experience PPE – Powered-Lift Category. The examiner applicant shall have at least:

(1) A CPL(PL) with an instrument powered-lift rating;

(2) A valid FI licence with a powered-lift category;

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in powered-lift, of which 300 hours were accrued within the past year; and

(ii) 100 hours in powered-lift at night.

(4) 500 hours as an FI in powered-lift.

(d) Experience PPE – Airship Category. The examiner applicant shall have at least:

(1) A CPL(AS) and any applicable class rating(s);

(2) A valid FI licence with an airship category and any applicable class rating(s);

(3) 1000 hours as PIC, including at least:

(i) 500 hours in airships, of which 200 hours were accrued within the past year; and

(ii) 50 hours in airships at night.

(4) 100 hours as an FI in airships.

2.3.11.3 EXPERIENCE REQUIREMENTS FOR COMMERCIAL AND INSTRUMENT RATING PILOT EXAMINER

(a) Experience CIRE – Aeroplane Category. The examiner applicant shall have at least:

(1) A CPL(A), appropriate class rating(s), and an IR(A);

(2) A valid FI certificate with an aeroplane category rating, the appropriate class rating(s), and an instrument – aeroplane rating;

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 500 hours in the class of aeroplane for which designation is sought;

(iii) 100 hours at night in aeroplanes;

(iv) 100 hours of instrument flight time in actual or simulated conditions; and

(v) For the authority to conduct skill tests in large or turbine-powered aeroplanes:

(A) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in aeroplanes, including at least:

(i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought; and

(ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes.

(b) Experience CIRE – Helicopter Category. The examiner applicant shall have at least:

(1) A CPL(H), appropriate class rating(s), and an instrument – helicopter rating;

(2) A valid FI certificate with a helicopter category rating, the appropriate class rating(s), and an instrument – helicopter rating.

(3) 2000 hours as PIC, including at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) 100 hours of instrument flight time in actual or simulated conditions;

(iii) For the authority to conduct skill tests in large or turbine-powered aeroplanes:

(A) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(B) 25 hours for each additional type of large helicopter for which designation is sought;

(4) 250 hours as an FI in helicopters, including at least:

(i) 100 hours of flight instruction given in the helicopters; and

(ii) 50 hours of instrument flight instruction in helicopters.

(c) Experience CIRE – Powered-Lift Category. The examiner applicant shall have at least:

(1) A CPL with a powered-lift category rating, any applicable class rating(s), and an instrument – powered-lift rating;

(2) A valid FI certificate with a powered-lift category rating, any applicable class rating(s) and an instrument – powered-lift rating;

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in powered-lifts, of which 300 hours were accrued within the past year;

(ii) 100 hours at night in powered-lifts;

(iii) 100 hours of instrument flight time in actual or simulated conditions; and

(iv) For the authority to conduct skill tests in large or turbine-engine powered-lifts:

(A) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in powered-lifts, including at least:

(i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts.

2.3.11.4 EXPERIENCE REQUIREMENTS FOR COMMERCIAL PILOT EXAMINERS

(a) Experience CE – Helicopter Category. The examiner applicant shall have at least:

(1) A CPL(H);

(2) A valid FI certificate with a helicopter category rating;

(3) 2000 hours as PIC, including at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) For the authority to conduct skill tests in large helicopters:

(A) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(B) 25 hours for each additional type of large helicopter for which designation is sought;

(4) 250 hours as an FI in helicopters, including at least:

(i) 50 hours of instrument flight instruction in helicopters.

(b) Experience CE – Airship Category. The examiner applicant shall have at least:

(1) A CPL(AS) and any applicable class rating(s);

(2) A valid FI licence with an airship category and any applicable class rating(s);

(3) 1000 hours as PIC, including at least:

(i) 500 hours in airships, of which 200 hours were accrued within the past year; and

(ii) 50 hours in airships at night;

(4) 100 hours as an FI in airships.

2.3.11.5 EXPERIENCE REQUIREMENTS FOR AIRLINE TRANSPORT PILOT EXAMINERS

(a) Experience ATPE – Aeroplane Category. The examiner applicant shall have at least:

(1) An ATPL(A), appropriate class rating(s), and an instrument – aeroplane rating;

(2) A valid FI certificate with an aeroplane category rating, the appropriate class rating(s), and an instrument – aeroplane rating;

(3) 2000 hours as PIC, including at least:

(i) 1500 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 500 hours in the class of aeroplane for which designation is sought;

(iii) 100 hours at night in aeroplanes;

(iv) 200 hours in complex aeroplanes;

(v) 100 hours of instrument flight time in actual or simulated conditions;

(vi) For the authority to conduct skill tests in large or turbine-powered aeroplanes;

(A) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in aeroplanes, including at least:

(i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought;

(ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes; and

(iii) 150 hours flight instruction given for a CPL(A), an ATPL(A), or an IR(A).

(b) Experience ATPE – Helicopter Category. The examiner applicant shall have at least:

(1) An ATPL(H), appropriate class rating(s), and an instrument – helicopter rating;

(2) A valid FI certificate with a helicopter category rating, the appropriate class rating(s), and an instrument – helicopter rating;

(3) 2000 hours as PIC, including at least:

(i) 1200 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) 100 hours of instrument flight time in actual or simulated conditions; and

(iii) For the authority to conduct skill tests in large helicopters:

(A) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(B) 25 hours for each additional type of large helicopter for which designation is sought;

(4) 250 hours as an FI in helicopters, including at least:

(i) 100 hours of flight instruction given in helicopters; and

(ii) 50 hours of instrument flight instruction in helicopters.

(c) Experience ATPE – Powered-Lift Category. The examiner applicant shall have at least:

(1) An ATPL(PL), any applicable class rating(s), and an instrument – powered-lift rating;

(2) A valid FI certificate with a powered-lift category rating, any applicable class rating(s), and an instrument – powered-lift rating;

(3) 2000 hours as PIC, including at least:

(i) 1500 hours in powered-lifts, of which 300 hours were accrued within the past year;

(ii) 100 hours at night in powered-lifts;

(iii) 100 hours of instrument flight time in actual or simulated conditions; and

(iv) For the authority to conduct skill tests in large or turbine-engine powered-lifts:

(A) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in powered-lifts, including at least:

(i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts; and

(ii) 150 hours of flight instruction given for a CPL(PL), an ATPL(PL), or an IR(PL).

2.3.11.6 EXPERIENCE REQUIREMENTS FOR FLIGHT INSTRUCTOR EXAMINER (FIE)

(a) The examiner applicant shall have at least:

(1) The requirements for a CE or a CIRE designation, as appropriate for the category and class of aircraft pertinent to the FIE designation sought; and

(2) Held a CE or a CIRE designation for at least a year prior to designation as a FIE.

2.3.12 REMOTE PILOT LICENCE (RPL)

Note 1: ICAO Assembly Resolution A38-12, Appendix C, resolves that pending the coming into force of International Standards respecting particular categories, classes, or types of aircraft, certificates issued or rendered valid, under national regulations, by the Contracting State in which the aircraft is registered, shall be recognised by other Contracting States for the purposes of flight over their territories, including landings and take-offs.

Note 2: Certification Standards are not yet developed by ICAO. Thus, in the meantime, any certification need not be automatically deemed to comply with the SARPs of the related ICAO Annexes, including Annexes 1, 6, and 8, until such time as the related RPAS SARPs are developed.

Note 3: Notwithstanding the ICAO Assembly Resolution A38-12, Article 8 of the Chicago Convention assures each Contracting State of the absolute sovereignty over the authorisation for RPA operation over its territory.

Note 4: The provisions of this section are for international IFR operations of RPAS.

2.3.12.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an RPL shall not be less than 18 years of age.

(b) MEDICAL FITNESS. The applicant for an RPL shall hold a current Class 3 medical certificate or a current Class 1 medical certificate.

(c) KNOWLEDGE AREAS. The applicant for an RPL shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of an RPL and appropriate to the category of RPA and associated RPS intended to be included in the RPL, in at least the following subjects:

(1) Air Law

(i) Rules and regulations relevant to the holder of an RPL; rules of the air; appropriate ATS practices and procedures;

(ii) Rules and regulations relevant to flight under IFR; related ATS practices and procedures;

(2) General RPAS knowledge.

(i) Principles of operation and functioning of engines, systems, and instruments;

(ii) Operating limitations of the relevant category of RPA and engines; relevant operational information from the flight manual or other appropriate document;

(iii) Use and serviceability checks of equipment and systems of appropriate RPA;

(iv) Maintenance procedures for airframes, systems, and engines of appropriate RPA;

(v) For rotorcraft and powered-lift, transmission (power-trains), where applicable;

(vi) Use, limitation, and serviceability of avionics, electronic devices, and instruments necessary for the control and navigation of an RPA under IFR and in IMC;

(vii) Flight instruments; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

(viii) For airships, physical properties and practical application of gases;

(ix) RPS general knowledge:

(A) Principles of operation and function of systems and instruments;

(B) Use and serviceability checks of equipment and systems of appropriate RPS;

(C) Procedures in the event of malfunctions;

(x) C2 link general knowledge:

(A) Different types of C2 links and their operating characteristics and limitations;

(B) Use and serviceability checks of C2 link systems;

(C) Procedures in the event of C2 link malfunction;

(xi) Detect and avoid capabilities for RPAS;

(3) Flight performace, Planning and Loading;

(i) Effects of loading and mass distribution on RPA handling, flight characteristics, and performance; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to RPAS operations under IFR; preparation and submission of ATS flight plans under IFR; appropriate ATS procedures; altimeter setting procedures;

(iv) In the case of airships, rotorcraft, and powered-lifts, effects of external loading on handling;

(4) Human performance.

(i) Human performance relevant to RPA and instrument flight, including principles of threat and error management;

(5) Meteorology.

(i) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect on aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

(iii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(iv) In the case of rotorcraft and powered-lifts, effects of rotor icing;

(v) In the case of high-altitude operations, practical high-altitude meteorology, including interpretation and use of weather reports, charts, and forecasts; jet streams;

(6) Navigation.

(i) Air navigation, including the use of aeronautical charts, instruments, and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of RPAS equipment;

(ii) Use, limitation, and serviceability of avionics and instruments necessary for control and navigation;

(iii) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight; identification of radio navigation aids;

(iv) Principles and characteristics of self-contained and external-referenced navigation systems; operation of RPAS equipment;

(7) Operational procedures.

(i) Application of threat and error management to operational performance;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en route, descent, and approach;

(iii) Altimeter setting procedures;

(iv) Appropriate precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;

(v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods and their management;

(vi) Requirements and practices for safety briefings to remote flight crew members;

(vii) In the case of rotorcraft and, if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

(viii) Operational procedures for handovers and coordination; and

(ix) Operational procedures for normal and abnormal C2 link operations;

(8) Principles of flight

(i) Principles of flight; and

(9) Radiotelephony (RT).

(i) RT procedures and phraseology; action to be taken in case of communication failure.

(d) SKILL.

(1) The applicant for an RPL shall have demonstrated all the competencies of the adapted competency model approved by the Authority at the level required, to act as remote PIC of an RPAS operation within the appropriate category of RPA and associated RPS.

(2) If the privileges of the RP are to be exercised on a multi-engined RPA, the applicant shall have demonstrated the ability to operate under IFR with degraded propulsion capabilities.

2.3.12.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE REMOTE PILOT LICENCE

(a) Experience. The applicant for an RPL shall have gained experience during training in operating the RPA and associated RPS to successfully demonstrate the competencies required in 2.3.12. of Part 2.

(b) RPL Training.

(1) In order to meet the requirements of the RPL, the applicant shall have completed an approved

training course. The training shall be competency based and, if applicable, conducted in a multi-crew operational environment.

(2) During the training, the applicant for an RPL shall have acquired the competencies and underpinning skills required for performing as an RP of an RPA certificated for operation under IFR.

(3) The applicant for an RPL shall have received dual RPL training in an RPA and associated RPS, sought from an authorised RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in all phases of flight and the entire operating envelope of an RPAS, including abnormal and emergency conditions, upset prevention and recovery training for the categories concerned, and IFR operations.

(4) If the privileges of the RP are to be exercised on a multi-engined RPA, the applicant shall have received dual instrument RPL training in a multi-engined RPA within the appropriate category from an authorised RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in the operation of the RPA within the appropriate category with engines inoperative or simulated inoperative.

2.3.12.3 GENERAL LICENSING SPECIFICATIONS

(a) A person shall not act either as remote PIC or as remote CP of an RPA in any of the following RPA categories unless that person is the holder of an RPL issued in accordance with the provisions of Part 2.:

(1) Aeroplane

(2) Airship

(3) Rotorcraft Powered-lift

(b) The category of RPA shall be endorsed as a category rating on the RPL.

(c) The applicant for an RPL shall, before being issued with any RPL or rating, meet such requirements with respect to age, experience, flight instruction, competencies, and medical fitness as are specified for that RPL or rating.

(d) The applicant for any RPL or rating shall demonstrate, in a manner determined by the Authority, such requirements for knowledge and skill as are specified for that RPL or rating.

(e) RPLs shall be validated or converted in accordance with the requirements of Part 2.

2.3.12.4 CATEGORY RATINGS

(a) When established, category ratings shall be for categories of RPA listed in 2.3.12.3 of Part 2.

(b) The holder of an RPL seeking additional category ratings to be added to the existing licence shall meet the requirements of Part 2 regarding RPAS appropriate to the privileges for which the category rating is sought.

2.3.12.5 CLASS AND TYPE RATINGS

(a) A class rating shall be established for RPA and associated RPS certificated for single-RP operation which have comparable handling, performance, and characteristics, unless a type rating is considered necessary by the Authority.

(b) A type rating shall be established for RPA and associated RPS certificated for operation with a minimum crew of at least two RPs or when considered necessary by the Authority.

Note: Where a common type rating is established, it will be only for RPA with similar characteristics in terms of operating procedures, systems, and handling.

(c) When an applicant for an RPL demonstrates competencies for the initial issue of an RPL, the category and ratings appropriate to the class or type of RPA and associated RPS used in the

demonstration shall be entered on that RPL.

(d) The levels of performance to be achieved to operate the class or type of RPA for which the ratings are issued shall be publicly available.

2.3.12.6 CIRCUMSTANCES IN WHICH CLASS AND TYPE RATINGS ARE REQUIRED

(a) A Contracting State having issued an RPL will not permit the holder of such RPL to act either as remote PIC or as remote CP of an RPA and associated RPS unless the holder has received authorisation as follows:

(1) The appropriate class rating specified in paragraph 2.3.12.5(a) of Part 2; or

(2) A type rating when required in accordance with the provisions of paragraph 2.3.12.5(b) of Part 2.

(i) When a type rating is issued limiting the privileges to act as remote CP, or limiting the privileges to act as RP only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

(ii) When a class rating is issued limiting the privileges to act as RP only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

(b) For the purpose of training, testing, or specific special-purpose non-revenue flights, special authorisation may be provided in writing to the RPL holder by the Authority in place of issuing the class or type rating in accordance with paragraph 2.3.12.6(a) of this subsection. This authorisation shall be limited in validity to the time needed to complete the specific flight.

2.3.12.7 REQUIREMENTS FOR THE ISSUE OF CLASS AND TYPE RATINGS

(a) The applicant for an RPL shall have demonstrated the competencies required for the safe operation of an RPA of the class for which the rating is sought.

(b) Type rating as required by 2.3.12.5 of Part 2. The applicant for an RPL shall have:

(1) Gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or FSTD in the following:

(i) Normal flight procedures and manoeuvres during all phases of flight;

(ii) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 link, systems, and airframe;

(iii) Instrument procedures, including instrument approach, missed approach, and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure;

(iv) For the issue of an aeroplane category type rating, upset prevention and recovery training; and

(v) Procedures for crew incapacitation and crew coordination, including allocation of RP tasks; crew cooperation and use of checklists;

(2) Demonstrated the competencies required for the safe operation of the applicable type of RPA and associated RPS and shall have demonstrated C2 link management skills relevant to the duties of a remote PIC or a remote CP, as applicable.

Note: Attention is called to 2.3.12.9 of Part 2 on the qualifications required for RPs giving RPAS training.

2.3.12.8 USE OF A FLIGHT SIMULATION TRAINING DEVICE FOR ACQUISITION OF EXPERIENCE AND DEMONSTRATION OF COMPETENCIES

(a) The use of an FSTD for acquiring the required experience or performing any manoeuvre required during the demonstration of competencies for the issue of an RPL or rating shall be approved by the

Authority, which will ensure that the FSTD used is appropriate to the task.

2.3.12.9 CIRCUMSTANCES IN WHICH AUTHORISATION TO CONDUCT REMOTE PILOT LICENCE TRAINING IS REQUIRED.

(a) A Contracting State, having issued an RPL, will not permit the holder thereof to carry out RPL training required for the issue of an RPL or rating unless such holder has received proper authorisation from such Contracting State. Proper authorisation shall comprise:

(1) An RPAS instructor rating on the holder's RPL; or

(2) The authority to act as an agent of an ATO authorised by the Authority to carry out RPL training; or

(3) A specific authorisation granted by the Contracting State which issued the RPL.

(b) A Contracting State will not permit a person to carry out RPL training on an FSTD required for the issue of an RPL or rating unless such person holds or has held an appropriate RPL or has appropriate RPAS training and flight experience and has received proper authorisation from such Contracting State.

2.3.12.10 CREDITING OF RPAS FLIGHT TIME

(a) A student RP shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for the initial issue of an RPL.

(b) The holder of an RPL shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(c) The holder of an RPL shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

(d) The holder of an RPL, when acting as remote CP of an RPA certificated for operation by a single RP, but required by a Contracting State to be operated with a remote CP, shall be entitled to be credited with not more than 50 per cent of the remote CP RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade. The Contracting State may authorise that RPAS flight time be credited in full towards the total RPAS flight time required if the RPAS is equipped to be operated by a remote CP and is operated in a multi-crew operation.

(e) The holder of an RPL, when acting as remote CP of an RPA certificated to be operated with a remote CP, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(f) The holder of an RPL, when acting as remote PIC under supervision, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(g) When applying for a new rating, the holder of an RPL shall be entitled to be credited with RPAS flight time experience as an RP of RPA. The Authority will determine whether such experience is acceptable and, if so, the extent to which the experience requirements for the issue of a rating can be reduced accordingly.

Note: The total RPAS flight time required is derived from the approved competency-based training programme.

2.3.12.11 LIMITATION OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 65TH BIRTHDAY

(a) A Contracting State, having issued an RPL, will not permit the holder thereof to act as pilot of an RPAS engaged in international commercial air transport operations if the licence holder has attained his or her 60th birthday or, in the case of operations with more than one pilot, his or her 65th birthday.

2.3.12.12 PRIVILEGES OF THE HOLDER OF THE REMOTE PILOT LICENCE AND THE CONDITIONS TO BE OBSERVED IN EXERCISING SUCH PRIVILEGES

(a) Subject to compliance with the requirements specified in 2.3.12.4 and 2.3.12.5, the privileges of the holder of an RPL shall be:

(1) To act as remote PIC of an RPA and associated RPS, certificated for remote single-pilot operation;

(2) To act as remote CP of an RPA and associated RPS, required to be operated with a remote CP;

(3) To act as a remote PIC of an RPA and the associated RPS, required to be operated with a remote CP; and

(4) To act either as remote PIC or as remote CP of an RPAS under IFR.

(b) Before exercising the privileges at night, the RPL holder shall have received dual instruction in an RPA and associated RPS in night flying, including take-off, landing, and navigation.

Note: Certain privileges of the RPL are curtailed by 2.3.12.11 of Part 2 for RPL holders when they attain their 60th and 65th birthdays.

2.3.12.13 RPAS INSTRUCTOR RATING - RESERVED

2.3.12.14 STUDENT REMOTE PILOT

(a) A student RP shall meet requirements prescribed by the Contracting State concerned. In prescribing such requirements, Contracting States will ensure that the privileges granted would not permit student RPs to constitute a hazard to air navigation.

(b) A student RP shall not fly an RPA solo unless under the supervision of, or with the authority of, an authorised RPAS instructor.

(c) A student RP shall not fly an RPA solo on international RPAS operations unless by special or general arrangement between the Contracting States concerned.

(d) Medical Fitness.

(1) A Contracting State will not permit a student RP to fly an RPA solo unless that student holds a current Class 3 or a current Class 1 medical certificate.

Note: A Class 1 medical certificate may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.

2.3.12.15 REMOTE PILOT LICENCE

Note: The provisions of this section are for international IFR operations of RPAS.

2.3.12.16 REQUIREMENTS FOR THE ISSUE OF THE RATING

(a) KNOWLEDGE.

(1) The applicant shall demonstrate the ability to effectively assess trainees against the adapted competency model used in the approved training programme.

(2) The applicant shall successfully complete the training and meet the qualifications of an ATO appropriate to the delivery of competency-based training programmes.

(3) The RPAS instructor training programme shall focus on the development of competence in the following specific areas:

(i) The adapted competency model of the RP training programme according to the

defined grading system used by the RPAS operator or ATO;

(ii) In accordance with the assessment and grading system of the RPAS operator or ATO, making assessments by observing behaviours; gathering objective evidence regarding the observable behaviours of the adapted competency model used;

(iii) Recognising and highlighting performance that meets competency standards;

(iv) Determining root causes for deviations below the expected standards of performance; and

(v) Identifying situations that could result in unacceptable reductions in safety margins.

(4) The applicant shall have met the competency requirements for the issue of an RPL as appropriate to the category of RPA and associated RPS.

(5) In addition, the applicant shall have demonstrated a level of competency appropriate to the privileges granted to the holder of an RPAS instructor rating, in at least the following areas:

(i) Techniques of applied instruction;

(ii) Assessment of student performance in those subjects in which ground instruction is given;

(iii) The learning process;

(iv) Elements of effective teaching;

(v) Competency-based training principles, including student assessments;

(vi) Evaluation of the training programme effectiveness;

(vii) Lesson planning;

(viii) Classroom instructional techniques;

(ix) Use of training aids, including FSTDs, as appropriate;

(x) Analysis and correction of student errors;

(xi) Human performance relevant to RPAS, instrument, flight, and RPL training, including principles of threat and error management; and

(xii) Hazards involved in simulating system failures and malfunctions in the aircraft.

(b) SKILL.

(1) The applicant shall have successfully performed a formal competency assessment, prior to conducting instruction and assessment within a competency-based training programme.

(2) The competency assessment shall be conducted during a practical training session in the category of RPA and associated RPS for which RPAS instructor privileges are sought, including pre-flight, post-flight, and ground instruction, as appropriate.

(3) The competency assessment shall be conducted by a person authorised by the Authority.

(c) EXPERIENCE.

(1) The applicant shall have met the requirements for the issue of an RPL, shall maintain competencies, and shall meet the recent experience requirements for the licence.

(2) The applicant shall have sufficient training and experience to attain the required level of proficiency in all the required tasks, manoeuvres, operations and principles, and methods of instruction relevant to 2.3.12.16(c).

(d) RPL TRAINING.

(1) The applicant shall, under the supervision of an RPAS instructor authorised by the Authority for that purpose:

(2) Have received training in RPAS instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(3) Have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide RPL training.

2.3.12.17 PRIVILEGES OF THE HOLDER OF THE RATING AND THE CONDITIONS TO BE OBSERVED

(a) Subject to compliance with the requirements specified in 2.12.1.8, the privileges of the holder of an RPAS instructor rating shall be:

(1) To supervise solo flights by student RPs; and

(2) To carry out RPL training for the issue of an RPL and an RPAS instructor rating, provided that the RPAS instructor:

(i) Holds at least the RPL and rating for which instruction is being given, in the appropriate RPA category and associated RPS;

(ii) Holds the RPL and rating necessary to act as the remote PIC of the RPA category and associated RPS on which the instruction is given; and

(iii) Has the RPAS instructor privileges granted endorsed on the RPL.

(b) The applicant, in order to carry out RPL training in a multi-crew operational environment, shall have also met all the instructor qualification requirements.

2.4 RESERVED.

2.5 RESERVED.

2.6 AVIATION MAINTENANCE LICENSING, INSTRUCTORS, AND DESIGNATED EXAMINERS

2.6.1 AIRCRAFT MAINTENANCE LICENCE – TECHNICAL REQUIREMENTS

2.6.1.1 SCOPE

(a) This Sub-section establishes the requirements for application, issue and continuation of its validity.

(b) For the purpose of this Sub-Part, the Authority shall be the entity to whom a person first applies for the issuance of an aircraft maintenance licence;

(c) The Authority shall be responsible for defining:

(1) the list of aircraft types; and

(2) what airframe/engine combinations are included in each particular aircraft type rating.

2.6.1.2 AMT LICENSE CATEGORIES

(a) Aircraft maintenance licences include the following categories:

(1) Category A

(2) Category B1

(3) Category B2

(4) Category B3

(5) Category C

(b) Categories A and B1 are subdivided into subcategories relative to combinations of aeroplanes, helicopters, turbine and piston engines. These subcategories are:

(1) A1 and B1.1 Aeroplanes Turbine

(2) A2 and B1.2 Aeroplanes Piston

(3) A3 and B1.3 Helicopters Turbine

(4) A4 and B1.4 Helicopters Piston

(c) Category B3 is applicable to piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below.

2.6.1.3 AMT LICENSE AIRCRAFT GROUP RATINGS

(a) For the purpose of ratings on AMT licences, aircraft shall be classified in the following groups:

(1) Group1: complex motor-powered aircraft as well as multiple engine helicopters, aeroplanes with maximum certified operating altitude exceeding FL290, aircraft equipped with fly-by-wire systems and other aircraft requiring an aircraft type rating when defined so by the Authority.

(2) Group 2: aircraft other than those in Group 1 belonging to the following subgroups:

(i) sub-group 2a: single turbo-propeller engine aeroplanes;

(ii) sub-group 2b: single turbine engine helicopters;

(iii) sub-group 2c: single piston engine helicopters.

(3) Group 3: piston engine aeroplanes other than those in Group 1.

2.6.1.4 APPLICATION

(a) An application for an aircraft maintenance licence or change to such licence shall be made on a CCAA Form 20 (see IS 2.6.1.4) in a manner established by the Authority and submitted thereto.

(b) An application for the change to an aircraft maintenance licence shall be made to the Authority.

(c) In addition to the documents required in points 2.6.1.4(a), 2.6.1.4(b) and 2.6.2.7, as appropriate, the applicant for additional basic categories or subcategories to an aircraft maintenance licence shall submit his/her current original aircraft maintenance licence to the Authority together with the CCAA Form 20.

(d) Where the applicant for change of the basic categories qualifies for such change via the procedure referred to in point 2.6.2.6, the application shall be sent to the Authority referred to in point 2.6.1.

(e) Where the applicant for change of the basic categories qualifies for such change via the procedure referred to in point 2.6.2.7, the maintenance organisation approved in accordance with Part 6 shall send the aircraft maintenance licence together with the CCAA Form 20 to the Authority referred to in point 2.6.1 for stamp and signature of the change or reissue of the licence, as appropriate.

(f) Each application shall be supported by documentation to demonstrate compliance with the applicable theoretical knowledge, skill test, skill test and experience requirements at the time of application.

(g) Each application shall comply with the applicable fees as per “Landsverordening

Luchtvaarttarieven".

2.6.1.5 ELIGIBILITY

(a) An applicant for an aircraft maintenance licence shall be at least 18 years of age.

2.6.1.6 PRIVILEGES

(a) The following privileges shall apply:

(1) A category A aircraft maintenance licence permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in Part 6. The certification privileges shall be restricted to work that the licence holder has personally performed in the maintenance organisation that issued the certification authorisation.

(2) A category B1 aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B1 support staff following:

(i) maintenance performed on aircraft structure, powerplant and mechanical and electrical systems,

(ii) work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.

(iii) Category B1 includes the corresponding A subcategory.

(3) A category B2 aircraft maintenance licence shall permit the holder:

(i) to issue certificates of release to service and to act as B2 support staff for following:

(A) maintenance performed on avionic and electrical systems, and

(B) electrical and avionics tasks within powerplant and mechanical systems, requiring only simple tests to prove their serviceability; and

(ii) to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in Part 6. This certification privilege shall be restricted to work that the licence holder has personally performed in the maintenance organisation which issued the certification authorisation and limited to the ratings already endorsed in the B2 licence.

(iii) The category B2 licence does not include any A subcategory.

(4) A category B3 aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B3 support staff for:

(i) maintenance performed on aeroplane structure, powerplant and mechanical and electrical systems,

(ii) work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.

(5) A category C aircraft maintenance licence shall permit the holder to issue certificates of release to service following base maintenance on aircraft. The privileges apply to the aircraft in its entirety.

(b) The holder of an aircraft maintenance licence may not exercise its privileges unless:

(1) in compliance with the applicable requirements of Part 5 and Part 6; and

(2) in the preceding 2-year period he/she has, either had 6 months of maintenance

experience in accordance with the privileges granted by the aircraft maintenance licence or, met the provision for the issue of the appropriate privileges; and

(3) he/she has the adequate competence to certify maintenance on the corresponding aircraft; and

(4) he/she is able to read, write and communicate to an understandable level in the language(s) in which the technical documentation and procedures necessary to support the issue of the certificate of release to service are written.

2.6.1.7 BASIC KNOWLEDGE REQUIREMENTS

(a) An applicant for an aircraft maintenance licence, or the addition of a category or subcategory to such a licence, shall demonstrate by examination a level of knowledge in the appropriate subject modules in accordance with the IS 2.6.1.7 to Part 2. The examination shall be conducted either by a training organisation appropriately approved in accordance with Part 3 or by the Authority.

(b) The training courses and examinations shall be passed within 10 years prior to the application for an aircraft maintenance licence or the addition of a category or subcategory to such aircraft maintenance licence. Should this not be the case, examination credits may however be obtained in accordance with point (c).

(c) The applicant may apply to the Authority for full or partial examination credit to the basic knowledge requirements for:

(1) basic knowledge examinations that do not meet the requirement described in point (b) above; and

(2) any other technical qualification considered by the Authority to be equivalent to the knowledge standard of Part 2.

(d) Credits shall be granted in accordance with Subpart E of Section B of this Part.

(e) Credits expire 10 years after they were granted to the applicant by the Authority. The applicant may apply for new credits after expiration.

2.6.1.8 BASIC EXPERIENCE REQUIREMENTS

(a) An applicant for an aircraft maintenance licence shall have acquired:

(1) for category A, subcategories B1.2 and B1.4 and category B3:

(i) years of practical maintenance experience on operating aircraft, if the applicant has no previous relevant training; or

(ii) 2 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the Authority as a skilled worker, in a technical trade; or

(iii) 1 year of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with Part 3;

(2) for category B2 and subcategories B1.1 and B1.3:

(i) years of practical maintenance experience on operating aircraft if the applicant has no previous relevant technical training; or

(i) 3 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the competent authority as a skilled worker, in a technical trade; or

(ii) 2 years of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with Part 3;

(3) for category C with respect to large aircraft:

(i) 3 years of experience exercising category B1.1, B1.3 or B2 privileges on large aircraft or as support staff or, a combination of both; or

(ii) Years of experience exercising category B1.2 or B1.4 privileges on large aircraft or as support staff or a combination of both;

(4) for category C with respect to other than large aircraft: 3 years of experience exercising category B1 or B2 privileges on other than large aircraft or as support staff or a combination of both;

(5) for category C obtained through the academic route: an applicant holding an academic degree in a technical discipline, from a university or other higher educational institution recognised by the Authority, 3 years of experience working in a civil aircraft maintenance environment on a representative selection of tasks directly associated with aircraft maintenance including 6 months of observation of base maintenance tasks.

(b) An applicant for an extension to an aircraft maintenance licence shall have a minimum civil aircraft maintenance experience requirement appropriate to the additional category or subcategory of licence applied for as defined in IS 2.6.1.8 to this Part.

(c) The experience shall be practical and involve a representative cross section of maintenance tasks on aircraft.

(d) At least 1 year of the required experience shall be recent maintenance experience on aircraft of the category/subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than 1 year, but shall be at least 3 months. The required experience shall be dependent upon the difference between the licence category/subcategory held and applied for. Such additional experience shall be typical of the new licence category/ subcategory sought.

(e) Notwithstanding paragraph (d), aircraft maintenance experience gained outside a civil aircraft maintenance environment shall be accepted when such maintenance is equivalent to that required by this Part as established by the Authority. Additional experience of civil aircraft maintenance shall, however, be required to ensure adequate understanding of the civil aircraft maintenance environment.

(f) Experience shall have been acquired within the 10 years preceding the application for an aircraft maintenance licence or the addition of a category or subcategory to such a licence.

2.6.1.9 RESERVED

2.6.1.10 CONTINUED VALIDITY OF THE AIRCRAFT MAINTENANCE LICENCE

(a) The aircraft maintenance licence becomes invalid 5 years after its last issue or change, unless the holder submits his/her aircraft maintenance licence to the Authority that issued it, in order to verify that the information contained in the licence is the same as that contained in the Authority records, pursuant to point 2.6.2.10.

(b) The holder of an aircraft maintenance licence shall complete the relevant parts of CCAA Form 20 (see IS 2.6.1.4) and submit it with the holder's copy of the licence to the Authority that issued the original aircraft maintenance licence, unless the holder works in a maintenance organisation approved in accordance with Part 6 that has a procedure in its exposition whereby such organisation may submit the necessary documentation on behalf of the aircraft maintenance licence holder.

(c) Any certification privilege based upon an aircraft maintenance licence becomes invalid as soon as the aircraft maintenance licence is invalid.

(d) The aircraft maintenance licence is only valid (i) when issued and/or changed by the Authority and (ii) when the holder has signed the document.

2.6.1.11 ENDORSEMENT WITH AIRCRAFT RATINGS

(a) In order to be entitled to exercise certification privileges on a specific aircraft type, the holder of an aircraft maintenance licence need to have his/her licence endorsed with the relevant aircraft ratings.

(1) For category B1, B2 or C the relevant aircraft ratings are the following:

(i) For group 1 aircraft, the appropriate aircraft type rating.

(ii) For group 2 aircraft, the appropriate aircraft type rating, manufacturer sub-group rating or full sub-group rating.

(iii) For group 3 aircraft, the appropriate aircraft type rating or full group rating.

(2) For category B3, the relevant rating is 'piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below'.

(3) For category A, no rating is required, subject to compliance with the requirements of Part 6.

(b) The endorsement of aircraft type ratings requires the satisfactory completion of the relevant category B1, B2 or C aircraft type training.

(c) Addition to the requirement of point (b), the endorsement of the first aircraft type rating within a given category/sub-category requires satisfactory completion of the corresponding on the Job Training, as described in IS 2.6.1.11 to Part 2.

(d) By derogation from points (b) and (c), for group 2 and 3 aircraft, aircraft type ratings may also be granted after:

(1) satisfactory completion of the relevant category B1, B2 or C aircraft type examination described in IS 2.6.1.11 to this Part 2, and

(2) in the case of B1 and B2 category, demonstration of practical experience on the aircraft type. In that case, the practical experience shall include a representative cross section of maintenance activities relevant to the licence category.

(3) in the case of a category C rating for a person qualified by holding an academic degree as specified in point 2.6.1.8 (a)(5), the first relevant aircraft type examination shall be at the category B1 or B2 level.

(e) For group 2 aircraft

(1) the endorsement of manufacturer sub-group ratings for category B1 and C licence holders requires complying with the aircraft type rating requirements of at least two aircraft types from the same manufacturer which combined are representative of the applicable manufacturer sub-group;

(2) the endorsement of full sub-group ratings for category B1 and C licence holders requires complying with the aircraft type rating requirements of at least three aircraft types from different manufacturers which combined are representative of the applicable sub-group;

(3) the endorsement of manufacturer sub-groups and full sub-group ratings for category B2 licence holders requires demonstration of practical experience which shall include a representative cross section of maintenance activities relevant to the licence category and to the applicable aircraft sub-group.

(f) For group 3 aircraft:

(1) the endorsement of the full group 3 rating for category B1, B2 and C licence holders requires demonstration of practical experience, which shall include a representative cross section of maintenance activities relevant to the licence category and to the group 3.

(2) for category B1, unless the applicant provides evidence of appropriate experience, the group 3 rating shall be subject to the following limitations, which shall be endorsed on the licence:

(i) pressurised aeroplanes

(ii) metal structure aeroplanes

(iii) composite structure aeroplanes

(iv) wooden structure aeroplanes

(v) aeroplanes with metal tubing structure covered with fabric.

(g) For the B3 licence:

(1) the endorsement of the rating 'piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below' requires demonstration of practical experience which shall include a representative cross-section of maintenance activities relevant to the licence category.

(2) unless the applicant provides evidence of appropriate experience, the rating referred to in point 1 shall be subject to the following limitations, which shall be endorsed on the licence:

(i) wooden structure aeroplanes
(ii) aeroplanes with metal tubing structure covered with fabric
(iii) metal structure aeroplanes
(iv) composite structure aeroplanes.

2.6.1.12 LIMITATIONS

(a) Limitations introduced on an aircraft maintenance licence are exclusions from the certification privileges and affect the aircraft in its entirety.

(b) For limitations referred to in point 2.6.1.11, limitations shall be removed upon:

(1) demonstration of appropriate experience; or

(2) after a satisfactory skill test performed by the Authority.

(c) For limitations referred to in point 2.6.1.14, limitations shall be removed upon satisfactory completion of examination on those modules/subjects defined in the applicable conversion report referred to in point 2.6.2.14.

2.6.1.13 EVIDENCE OF QUALIFICATION

(a) Personnel exercising certification privileges as well as support staff shall produce their licence, as evidence of qualification, within 24 hours upon request by an authorised person.

2.6.1.14 CONVERSION PROVISIONS

(a) The holder of a certifying staff qualification valid in Curaçao, prior to the date of entry into force of Part 2 shall be issued an aircraft maintenance licence by the Authority without further examination subject to the conditions specified in Section B Subpart D.

(b) A person undergoing a certifying staff qualification process valid in Curaçao, prior to the date of entry into force of Part 2 may continue to be qualified. The holder of a certifying staff qualification gained following such process shall be issued an aircraft maintenance licence by the Authority without further examination subject to the conditions specified in Section B Subpart D.

(c) Where necessary, the aircraft maintenance licence shall contain limitations in accordance with point 2.6.1.12 to reflect the differences between (i) the scope of the certifying staff qualification valid in Curaçao before the entry into force of this Regulation and (ii) the basic knowledge requirements and the basic examination standards laid down in IS 2.6.1.7 and 2.6.2.13 to this Part.

(d) By derogation to paragraph (c) for aircraft not involved in commercial air transport other than large aircraft, the aircraft maintenance licence shall contain limitations in accordance with point 2.6.1.12 to ensure that the certifying staff privileges valid in Curaçao before the entry into force of this Regulation and the privileges of the converted Part 2 aircraft maintenance licence remain the same.

2.6.2 PROCEDURES FOR AUTHORITY

2.6.2.1 SCOPE

(a) This section establishes the procedures including the administrative requirements to be followed by the Authorities in charge of the implementation and the enforcement of Section A of this Part.

2.6.2.2 AUTHORITY

(a) The Authority is responsible for the issuance, continuation, change, suspension or revocation of aircraft maintenance licences.

(b) This Authority shall establish an adequate organisational structure to ensure compliance with this Part.

(c) The Authority shall be appropriately staffed to ensure the implementation of the requirements of this Part.

(d) The Authority shall establish documented procedures detailing how compliance with this Part is accomplished. These procedures shall be reviewed and amended to ensure continued compliance.

2.6.2.3 RECORD-KEEPING

(a) The Authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, revalidate, change, suspend or revoke each aircraft maintenance licence.

(b) These records shall include for each licence:

(1) the application for an aircraft maintenance licence or change to that licence, including all supporting documentation;

(2) a copy of the aircraft maintenance licence including any changes;

(3) copies of all relevant correspondence;

(4) details of any exemption and enforcement actions;

(5) any report from other competent authorities relating to the aircraft maintenance licence holder;

(6) the records of examinations conducted by the Authority;

(7) the applicable conversion report used for conversion;

(8) the applicable credit report used for crediting.

(c) Records referred to in points 1 to 5 of point (b) shall be kept at least 7 years after the end of the licence validity.

(d) Records referred to in points 6, 7 and 8 of point (b) shall be kept for an unlimited period.

2.6.2.4 MUTUAL EXCHANGE OF INFORMATION

(a) In order to implement the requirement of this Regulation, the authority shall participate in a mutual exchange of information with other ICAO Member States.

(b) Without prejudice to the competencies of the ICAO Member States, in the case of a potential safety threat involving several ICAO Member States, the authority shall assist in carrying out the necessary oversight action.

2.6.2.5 EXEMPTIONS

(a) All exemptions granted in accordance with this Part shall be approved by the Director General, recorded and retained by the Authority.

2.6.2.6 PROCEDURE FOR THE ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE BY THE AUTHORITY

(a) This Paragraph provides the procedures to be followed by the Authority to issue, change or continue an aircraft maintenance licence.

(1) On receipt of CCAA Form 20 and any supporting documentation, the Authority shall verify the CCAA Form 20 for completeness and ensure that the experience claimed meets the requirement of this Part.

(2) The authority shall verify an applicant's examination status and/or confirm the validity of any credits to ensure that all required modules of IS 2.6.1.7 have been met as required by this Part.

(3) When having verified the identity and date of birth of the applicant and being satisfied that the applicant meets the standards of knowledge, skill and experience required by this Part, the authority shall issue the relevant aircraft maintenance licence to the applicant. The same information shall be kept on Authority records.

(4) In the case where aircraft types or groups are endorsed at the time of the issuance of the first aircraft maintenance licence, the Authority shall verify compliance with point 2.6.2.9.

2.6.2.7 PROCEDURE FOR THE ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE VIA A MAINTENANCE ORGANISATION APPROVED IN ACCORDANCE WITH PART 6

(a) A maintenance organisation approved in accordance with Part 6, when authorised to carry out this activity by the Authority, may (i) prepare the aircraft maintenance licence on behalf of the Authority or (ii) make recommendations to the Authority regarding the application from an individual for an aircraft maintenance licence so that the Authority may prepare and issue such licence.

(b) Maintenance organisations referred to in point (a) shall ensure compliance with points 2.6.2.6 (a) and (b).

(d) In all cases, the aircraft maintenance licence can only be issued to the applicant by the Authority.

2.6.2.8 PROCEDURE FOR THE CHANGE OF AN AIRCRAFT MAINTENANCE LICENCE TO INCLUDE AN ADDITIONAL BASIC CATEGORY OR SUBCATEGORY

(a) At the completion of the procedures specified in points 2.6.2.6 or 2.6.2.7, the Authority shall endorse the additional basic category or subcategory on the aircraft maintenance licence by stamp and signature or reissue the licence.

(b) The Authority record system shall be changed accordingly.

2.6.2.9 PROCEDURE FOR THE CHANGE OF AN AIRCRAFT MAINTENANCE LICENCE TO INCLUDE AN AIRCRAFT RATING OR TO REMOVE LIMITATIONS

(a) On receipt of a satisfactory CAAA Form 19 and any supporting documentation demonstrating compliance with the requirements of the applicable rating together with the accompanying aircraft maintenance licence, the Authority shall either:

(1) endorse the applicant's aircraft maintenance licence with the applicable aircraft rating; or

(2) reissue the said licence to include the applicable aircraft rating; or

(3) remove the applicable limitations in accordance with point 2.6.1.12;

(b) The Authority record system shall be changed accordingly.

(c) In the case where the complete type training is not conducted by maintenance training organisation appropriately approved in accordance with Part 3, the Authority shall be satisfied that all type training requirements are complied with before the type rating is issued.

(d) In the case where the On the Job Training is not required, the aircraft type rating shall be endorsed based on a Certificate of Recognition issued by a maintenance training organisation approved in accordance with Part 3.

(e) In the case where the aircraft type training is not covered by a single course, the authority shall be satisfied prior to the type rating endorsement that the content and length of the courses fully satisfy the scope of the licence category and that the interface areas have been appropriately addressed.

(f) In the case of differences training, the Authority shall be satisfied that (i) the applicant's previous qualification, supplemented by (ii) either a course approved in accordance with Part 3 or a course directly approved by the Authority, are acceptable for type rating endorsement.

(g) Compliance with the practical elements shall be demonstrated (i) by the provision of detailed skill test records or a logbook provided by a maintenance organisation appropriately approved in accordance with Part 6 or, where available, (ii) by a training certificate covering the skill test element issued by a maintenance training organisation appropriately approved in accordance with Part 3.

(h) Aircraft type endorsement shall use the aircraft type ratings specified by the Authority.

2.6.2.10 PROCEDURE FOR THE RENEWAL OF AN AIRCRAFT MAINTENANCE LICENCE VALIDITY

(a) The Authority shall compare the holder's aircraft maintenance licence with the Authority records and verify any pending revocation, suspension or change action pursuant to point 2.6.2.20. If the documents are identical and no action is pending pursuant to point 2.6.2.20, the holder's copy shall be renewed for 5 years and the file endorsed accordingly.

(b) If the Authority records are different from the aircraft maintenance licence held by the licence holder:

(1) the Authority shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance licence.

(2) the Authority shall inform the licence holder and any known maintenance organisation approved in accordance with Part 9 or Part 6 that may be directly affected of such fact.

(3) the Authority shall, if necessary, take action in accordance with point 2.6.2.20 to revoke, suspend or change the licence in question.

2.6.2.11 PROCEDURE FOR THE CONVERSION OF LICENCES INCLUDING GROUP RATINGS

(a) Individual aircraft type ratings already endorsed on the aircraft maintenance licence referred to in Beschikking Luchtvaartbrevetering (P.B. 1995 no. 108, as amended) shall remain on the licence and shall not be converted to new ratings unless the licence holder fully meets the requirements for endorsement defined in point 2.6.1.11 of this Part for the corresponding group/sub-group ratings.

(b) The conversion shall be performed in accordance with the following conversion table:

(c) for category B1 or C:

(1) helicopter piston engine, full group: converted to 'full sub-group 2c' plus the aircraft type ratings for those single piston engine helicopters which are in group 1,

(2) helicopter piston engine, manufacturer group: converted to the corresponding 'manufacturer sub-group 2c' plus the aircraft type ratings for those single piston engine helicopters of that manufacturer which are in group 1,

(3) helicopter turbine engine, full group: converted to 'full sub-group 2b' plus the aircraft type ratings for those single turbine engine helicopters which are in group 1,

(d) helicopter turbine engine, manufacturer group: converted to the corresponding 'manufacturer sub-group 2b' plus the aircraft type ratings for those single turbine engine helicopters of that manufacturer which are in group 1,

(1) aeroplane single piston engine — metal structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: composite structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(2) aeroplane multiple piston engines — metal structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: composite structure aero- planes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(3) aeroplane single piston engine — wooden structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, composite structure aeroplanes and metal tubing and fabric aeroplanes,

(4) aeroplane multiple piston engine — wooden structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, composite structure aeroplanes and metal tubing and fabric aeroplanes,

(5) aeroplane single piston engine — composite structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(6) aeroplane multiple piston engine — composite structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(7) aeroplane turbine — single engine, full group: converted to 'full sub-group 2a' plus the aircraft type ratings for those single turboprop aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

(8) aeroplane turbine — single engine, manufacturer group: converted to the corresponding 'manufacturer sub-group 2a' plus the aircraft type ratings for those single turboprop aeroplanes of that manufacturer which did not require an aircraft type rating in the previous system and are in group 1,

(9) aeroplane turbine — multiple engine, full group: converted to the aircraft type ratings for those multiple turboprop aeroplanes which did not require an aircraft type rating in the previous system;

(e) for category B2:

(1) aeroplane: converted to 'full sub-group 2a' and 'full group 3', plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

(2) helicopter: converted to 'full sub-groups 2b and 2c', plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1;

(f) for category C:

(1) aeroplane: converted to 'full sub-group 2a' and 'full group 3', plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

(2) helicopter: converted to 'full sub-groups 2b and 2c', plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1.

(g) If the licence was subject to limitations following the conversion process referred to in point 2.6.1.14, these limitations shall remain on the licence, unless they are removed under the conditions defined in the relevant conversion report referred to in point 2.6.2.14.

2.6.2.12 PROCEDURE FOR THE DIRECT APPROVAL OF AIRCRAFT TYPE TRAINING

(a) The Authority may approve aircraft type training not conducted by a maintenance training organisation approved in accordance with Part 3, pursuant to point 1 of IS 2.6.1.11 to this Part. In such case the Authority shall have a procedure to ensure the aircraft type training complies with IS 2.6.1.11 of this Part.

2.6.2.13 EXAMINATION BY THE AUTHORITY

(a) This Paragraph provides the procedures to be followed for the examinations conducted by the Authority.

(1) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination.

(2) The Authority shall nominate:

(i) persons who control the questions to be used for each examination;

(ii) Examiners who shall be present during all examinations to ensure the integrity of the examination.

(3) Basic examinations shall follow the standard specified in IS 2.6.1.7 and 2.6.2.13 to this Part.

(4) Type training examinations and type examinations shall follow the standard specified in IS 2.6.1.11 in this Part.

(5) New essay questions shall be raised at least every 6 months and questions already used withdrawn or rested from use. A record of the questions used shall be retained in the records for reference.

(6) All examination papers shall be handed out at the start of the examination to the candidate and handed back to the examiner at the end of the allotted examination time period. No examination paper may be removed from the examination room during the allotted examination time period.

(7) Apart from specific documentation needed for type examinations, only the examination paper may be available to the candidate during the examination.

(8) Examination candidates shall be separated from each other so that they cannot read each other's examination papers. They may not speak to any person other than the examiner.

(9) Candidates who are proven to be cheating shall be banned from taking any further examination within 12 months of the date of the examination in which they were found cheating.

2.6.2.14 CONVERSION OF CERTIFYING STAFF QUALIFICATIONS - GENERAL

(a) This Subpart provides the procedures for the conversion of certifying staff qualifications referred to in point 2.6.1.14 to aircraft maintenance licences.

(b) The Authority may only convert qualifications (i) obtained in Curaçao for which it is competent and (ii) valid prior to the entry into force of the applicable requirements of this Part.

(c) The Authority may only perform the conversion in accordance with a conversion report established pursuant to points 2.6.2.15 or 2.6.2.16, as applicable.

(d) Conversion reports shall be either (i) developed by the Authority or (ii) approved by the Authority to ensure compliance with this Part.

(e) Conversion reports together with any change of these shall be kept on record by the Authority in accordance with point 2.6.2.3.

2.6.2.15 RESERVED

2.6.2.16 CONVERSION REPORT FOR NATIONAL QUALIFICATIONS

(a) The conversion report for national certifying staff qualifications shall describe the scope of each type of qualification, including the associated national licence, if any, the associated privileges and include a copy of the relevant national regulations defining these.

(b) The conversion report shall show for each type of qualification referred to in point (a):

(1) to which aircraft maintenance licence it will be converted; and

(2) which limitations shall be added in accordance with points 2.6.1.14(c) or (d), as applicable; and

(3) the conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in IS 2.6.1.11 to this Part not covered by the national qualification.

2.6.2.17 CONVERSION REPORT FOR APPROVED MAINTENANCE ORGANISATIONS AUTHORISATIONS

(a) For each approved maintenance organisation concerned, the conversion report shall describe the scope of each type of authorisation issued by the maintenance organisation and include a copy of the relevant approved maintenance organisation's procedures for the qualification and the authorisation of certifying staff on which the conversion process is based.

(b) The conversion report shall show for each type of authorisation referred to in point (a):

(1) to which aircraft maintenance licence it will be converted, and

(2) which limitations shall be added in accordance with points 2.6.1.14(c) or (d), as applicable, and

(3) the conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in IS 2.6.1.11 to this Part not covered by the national qualification.

2.6.2.18 EXAMINATION CREDITS – GENERAL

(a) This Paragraph provides the procedures for granting examination credits referred to in Paragraph 2.6.1.7(c).

(1) The Authority may only grant credit on the basis of a credit report prepared in accordance with point 2.6.2.18.

(2) The credit report shall be either (i) developed by the competent authority or (ii) approved by the Authority to ensure compliance with this Part.

(3) Credit reports together with any change of these shall be dated and kept on record by the Authority in accordance with point 2.6.2.3.

2.6.2.19 EXAMINATION CREDIT REPORT

(a) The credit report shall include a comparison between:

(1) the modules, sub-modules, subjects and knowledge levels contained in IS 2.6.1.7 to this Part, as applicable; and

(2) the syllabus of the technical qualification concerned relevant to the particular category being sought.

(b) This comparison shall state if compliance is demonstrated and contain the justifications for each statement.

(c) Credit for examinations, other than basic knowledge examinations carried out in maintenance training organisations approved in accordance with Part 3, can only be granted by the Authority by which the qualification has been obtained.

(d) No credit can be granted unless there is a statement of compliance against each module and sub-module, stating where, in the technical qualification, the equivalent standard can be found.

(e) The Authority shall check on a regular basis whether (i) the national qualification standard or (ii) IS 2.6.1.7 to this Part have changed and assess if changes to the credit report are consequently required. Such changes shall be documented, dated and recorded.

2.6.2.20 EXAMINATION CREDIT VALIDITY

(a) The Authority shall notify to the applicant in writing any credits granted together with the reference to the credit report used.

(b) Credits shall expire 10 years after they are granted.

(c) Expiration of the credits, the applicant may apply for new credits. The competent authority shall continue the validity of the credits for an additional period of 10 years without further consideration if basic knowledge requirements defined in IS 2.6.1.7 to this Part have not been changed.

2.6.2.21 CONTINUING OVERSIGHT - REVOCATION, SUSPENSION OR LIMITATION OF THE AIRCRAFT MAINTENANCE LICENCE

(a) This Paragraph describes the procedures for the continuing oversight of the aircraft maintenance licence and in particular for the revocation, suspension or limitation of the aircraft maintenance licence.

(b) The Authority shall suspend, limit or revoke the aircraft maintenance licence where it has identified a safety issue or if it has clear evidence that the person has carried out or been involved in one or more of the following activities:

(1) obtaining the aircraft maintenance licence and/or the certification privileges by falsification of documentary evidence;

(2) failing to carry out requested maintenance combined with failure to report such fact to the organisation or person who requested the maintenance;

(3) failing to carry out required maintenance resulting from own inspection combined with failure to report such fact to the organisation or person for whom the maintenance was intended to be carried out;

(4) negligent maintenance;

(5) falsification of the maintenance record;

(6) issuing a certificate of release to service knowing that the maintenance specified on the certificate of release to service has not been carried out or without verifying that such maintenance has been carried out;

(7) carrying out maintenance or issuing a certificate of release to service when adversely affected by alcohol or drugs;

(8) Issuing certificate of release to service while not in compliance with this regulation.

2.6.3 DESIGNATED AVIATION MECHANIC EXAMINERS

2.6.3.1 GENERAL REQUIREMENTS

(a) Age. An applicant for a designated mechanic examiner shall be at least 23 years of age.

(b) Medical. There are no medical requirements for a mechanic examiner.

(c) General eligibility.

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for AMT certification in both reciprocating and turbine engine aircraft.

(2) Have held a valid AMT certificate with the ratings for which a designation is to issue for five years.

(10) Have been actively exercising the privileges of that AMT certificate in the previous three years.

(11) Have a good record as an AMT and a person engaged in the industry and community with a reputation for honesty and dependability.

(12) The applicant must have for test conducted using the skill test, in accordance with IS 2.6.1.11.

(13) The applicant must have a fixed base of operation; equipment and materials must be adequate for an applicant to demonstrate the basic skills of the rating sought.

(14) The applicant must have an airworthy aircraft, other aircraft, aircraft subassemblies, operational mock-ups, and other aids that may be used for testing.

(15) The applicant must have tools, equipment, material, current publications, and necessary apparatus required to complete a project assignment must be the type recommended by the aircraft manufactures or accepted in the aviation industry.

2.6.3.2 KNOWLEDGE

(a) The applicant shall pass a pre-designation test on the following:

(1) Air Law and Regulations for AMT personnel.

(2) Current practices for the fleet of aircraft to be utilised.

(3) Recent improvement in technology, testing and tooling.

2.6.3.3 SKILL

(a) The applicant shall be observed conducting a complete, actual skill test using the approved Skill Test Standards (STS) in a satisfactory manner.

(b) The applicant shall be observed completing the required documentation required by the Authority in a satisfactory manner.

2.6.3.4 CURRENCY

(a) After designation, a Designated Maintenance Technician Examiner shall maintain currency by:

(1) Attending initial and recurrent training conducted by the Authority, and

(2) Maintaining a current and valid AMT licence and applicable ratings.

(b) The Designated AMT Examiner shall conduct at least 3 skill test during any 12 calendar month period in order to the designation remain current.

(c) The Designated AMT Examiner shall be observed by the Authority in the conduct of skill test at least once each 12 calendar months.

2.6.3.5 PRIVILEGES

(a) The Designated AMT Examiner may conduct AMT skill tests for which he/ she is designated in accordance with the Skill Test Standards as incorporated in IS 2.6.1.11.

2.6.3.6 VALIDITY

(a) The Designated AMT Examiner designation shall be valid for one year.

2.6.3.7 RENEWAL

(a) The Designated AMT Examiner designation may be renewed by Authority if:

(b) The need for the designation remains valid.

(c) The performance of the Desiganted AMT Examiner has been satisfactory.

(d) The AMT examiner has attended the Designated AMT Examiner training conducted by the Authority in the previous 12 calendar months.

2.7 AIR TRAFFIC CONTROLLER LICENCES, CATEGORIES AND RATINGS.

2.7.1 APPLICABILITY

(a) This section prescribes the requirements for the issue, renewal, and reissue of an ATCO licence and ratings.

2.7.2 GENERAL

(a) An applicant shall, before being issued an ATCO licence, meet such requirements with respect to age, knowledge, experience, skill, medical fitness, and language proficiency as are specified for that licence or rating.

(b) An applicant shall, for renewal or reissue of a licence, rating, or authorisation, meet the requirements as are specified for that licence, rating, or authorisation.

2.7.3 AIR TRAFFIC CONTROLLER LICENCE AND RATINGS

2.7.3.1 STUDENT AIR TRAFFIC CONTROLLER

(a) The Authority will take the appropriate measures to ensure that student ATCOs do not constitute a hazard to air navigation.

(b) MEDICAL FITNESS. The Authority shall not permit a student ATCO to receive instruction in an operational environment unless that student ATCO holds a current Class 3 medical certificate.

(c) Have demonstrated competence in the ability to speak and understand the English Language to at least Level 4 of the ICAO Language Profeciency Rating scale.

2.7.3.2 AIR TRAFFIC CONTROLLER LICENCE

(a) AGE. The applicant for an ATCO licence shall be at least 21 years of age.

(b) MEDICAL. The applicant for an ATCO licence shall hold a Class 3 medical certificate issued under Part 2.

(c) KNOWLEDGE. The applicant for an ATCO licence shall receive knowledge instruction through an approved training course on the following knowledge areas appropriate to the holder of an ATCO licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the ATCO;

(2) AIR TRAFFIC CONTROL EQUIPMENT.

(i) Principles, use, and limitations of equipment used in air traffic control;

(3) GENERAL KNOWLEDGE.

(i) Principles of flight; principles of operation and functioning of aircraft and RPAS, engines, and systems, and aircraft performance relevant to air traffic control operations;

(4) HUMAN PERFORMANCE.

(i) Human performance, including principles of threat and error management;

Note: Guidance material to desing training programmes on human performance, including threat and error management, can be found in ICAO Doc 9683, Human Factors Training Manual.

(5) METEOROLOGY.

(i) Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;

(6) NAVIGATION.

(i) Principles of air navigation; principle, limitation, and accuracy of navigation systems and visual aids; and

(7) OPERATION PROCEDURES.

(i) Air traffic control, communication, RT and phraseology procedures (routine, non-routine, and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

(d) KNOWLEDGE TESTING. The applicant for an ATCO licence shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test.

(e) EXPERIENCE.

(1) The applicant shall have completed an approved training course and demonstrated the required competence, having accomplished not less than 3 months of satisfactory service engaged in the actual control of air traffic under the supervision of a designated OJTI. The experience requirements specified for air traffic controller ratings in 2.7.3.3 of Part 2 will be credited as part of the experience specified in this paragraph.

(2) An air traffic controller acting as a designated OJTI shall hold an appropriate rating and be qualified as a designated OJTI.

(f) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

2.7.3.3 AIR TRAFFIC CONTROLLER RATINGS

(a) ATCO ratings shall comprise the following categories:

(1) Aerodrome control rating (ADC);

(2) Approach control procedural rating (APP);

(3) Approach control surveillance rating (APS);

(4) Approach precision radar control rating (RAD);

(5) Area control procedural rating (ACP); and

(6) Area control surveillance rating (ACS).

Note: The World Meteorological Organizatio has specified requierments for personnel making meteorological observations which apply to ATCOs providing such a service.

(b) KNOWLEDGE. The applicant for an ATCO rating shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an ATCO rating on the subjects as specified below for each rating sought:

(1) Aerodrome control rating:

(i) Aerodrome layout; physical characteristics and visual aids

(ii) Airspace structure

(iii) Applicable rules, procedures, and source of information

(iv) Air navigation facilities

(v) Air traffic control equipment and its use

(vi) Terrain and prominent landmarks

(vii) Characteristics of air traffic and traffic flow

(viii) Weather phenomena

(ix) Emergency and search and rescue plans

(2) Approach control procedural and area control procedural ratings:

(i) Airspace structure

(ii) Applicable rules, procedures, and source of information

(iii) Air navigation facilities

(iv) Air traffic control equipment and its use

(v) Terrain and prominent landmarks

(vi) Characteristics of air traffic and traffic flow

(vii) Weather phenomena

(viii) Emergency and search and rescue plans

(3) Approach control surveillance, approach precision radar control, and area control surveillance ratings:

(i) The applicant shall meet the requirements specified in paragraph 2.7.3.3(b)(2) of this subsection insofar as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:

(A) Principles, use, and limitations of applicable ATS surveillance systems and associated equipment; and

(B) Procedures for the provision of ATS surveillance services, as appropriate, including procedures to ensure appropriate terrain clearance.

(c) KNOWLEDGE TESTING. The applicant for an ATCO rating shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test.

(d) EXPERIENCE.

(1) The applicant for an ATCO licence shall have:

(i) Satisfactorily completed an approved training course;

(ii) Demonstrated the required competence while providing, under the supervision of a designated OJTI, one or more of the following:

(A) Aerodrome control rating: an aerodrome control service, for a period of not less than 90 hours or 1 month, whichever is greater, at the unit for which the rating is sought;

(B) Approach control procedural, approach control surveillance, area control procedural, or area control surveillance rating: the control service for which the rating is sought, for a period of not less than 180 hours or 3 months, whichever is greater, at the unit for which the rating is sought; and

(C) Approach precision radar control rating: not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Authority. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought;

(2) The application for a rating shall be made within 6 months from the completion of experience specified in 2.7.3.3(d)(1)(ii).

(e) SKILL. The applicant shall have demonstrated, by passing the required skill test, at a level appropriate to the privileges being granted, the skill, judgement, and performance required to provide a safe, orderly, and expeditious control service, including the recognition and management of threats and errors.

Note: Guidance material on the application of threat and error management is found in ICAO Doc 9868, Procedures for Air Nagiation Services – Training (PANS-TRG), Chapter 3, Attachment C; in ICAO Doc 9683, Human Factors Training Manual, Part II, Chapter 2; and in ICAO Circulair 314, Threat and Error Management (TEM) in Air Traffic Control.

(f) PRIVILEGES AND LIMITATIONS.

(1) Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an ATCO licence with the following applicable rating(s) shall be:

(i) Aerodrome control rating: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated;

(ii) Approach control procedural rating: to provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;

(iii) Approach control surveillance rating: to provide and/or supervise the provision of approach control service with the use of applicable ATS surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;

Note: Subject to compliance with the provisions of paragraph 2.7.3.3(d) of this subsection, the privileges shall include the provision of surveillance system approaches.

(iv) Approach precision radar control rating: to provide and/or supervise the provision of precision approach radar service at the aerodrome for which the licence holder is rated;

(v) Area control procedural rating: to provide and/or supervise the provision of area control service, within the control area or portion thereof, for which the licence holder is rated; and

(vi) Area radar control surveillance rating: to provide and/or supervise the provision of area control service with the use of an ATS surveillance system, within the control area or portion thereof, for which the licence holder is rated.

(2) Before exercising the privileges indicated in paragraph 2.7.3.3(f)(1) of this subsection, the licence holder shall be familiar with all pertinent and current information.

(3) A holder of an ATCO licence and ratings(s) shall not provide instruction in an operational environment unless the licence holder has received proper authorisation from the Authority.

(g) VALIDITY OF RATINGS. A rating shall become invalid when an ATCO has ceased to exercise the privileges of the rating for a period of 6 months. A rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

2.7.4 RATINGS AND ENDORSEMENTS

(a) The rating in an ATC licence indicates the ATC discipline in which a controller may provide an ATC service. Associated with the ratings are rating endorsements, these rating endorsements further define the ATC service that may be provided. For example:

(1) the radar rating endorsements indicate that radar, both primary and secondary, may be used to provide the ATC services associated with the Approach or Area Surveillance ratings;

(2) The Aerodrome Control rating and the Approach and Area Control Procedural rating do not have a rating endorsement associated with them.

(b) The Authority may develop additional rating endorsements to meet their own national requirements.

2.7.4.1 AERODROME CONTROL RATING ENDORSEMENTS

(a) The Aerodrome Control rating shall have associated with it one or more of the following rating endorsements:

(1) TOWER CONTROL

Aerodrome Control may be one operational position or it may have additional operational position which is Ground Movement Control (GMC). Where Aerodrome Control is provided from one operational position it shall be indicated in the ATC licence by the issue of a Tower Control (TWR) endorsement to the Aerodrome Control rating.

(2) GROUND MOVEMENT CONTROL

The Ground Movement Control (GMC) endorsement indicates that the controller has the skills to provide Ground Movement Control.

(b) Recognising GMC as a separate endorsement will enable a controller whose task is restricted to providing GMC only to be issued with an air traffic controller licence with an Aerodrome Control rating.

2.7.4.2 APPROACH CONTROL PROCEDURAL RATING

(a) An Approach Control Procedural (APP) rating entitles the holder to provide an air traffic control service to arriving, departing or transiting aircraft in a control area and/or control zone without the use of surveillance equipment.

(b) The Approach Control Procedural rating may be granted to a controller who is competent to provide an Approach Control service to arriving, departing or transiting aircraft without the use of surveillance equipment.

(c) An Approach Control service may be provided by an Approach Control Unit or an Area Control Centre.

(d) The Approach Control Procedural rating has no associated rating endorsements. However, the Authority may wish to develop their own endorsements to be associated with this rating.

(e) A valid rating shall include a Unit endorsement.

2.7.4.3 APPROACH CONTROL SURVEILLANCE RATING

(a) An Approach Control Surveillance (APS) rating entitles the holder to provide an air traffic control service to arriving, departing or transiting aircraft with the use of surveillance equipment. To be valid, the rating must include either a Radar (RAD), or Automatic Dependent Surveillance (ADS) endorsement.

(b) An Approach Control Surveillance rating may be granted to a controller who is competent to provide an air traffic control service to arriving, departing or transiting aircraft with the use of surveillance equipment.

(c) A valid rating will include a Unit endorsement.

2.7.4.4 APPROACH CONTROL SURVEILLANCE RATING ENDORSEMENTS

(a) RADAR

(1) The radar endorsement indicates that the controller has the skills to provide an approach service with the use of primary and/or secondary radar.

(b) AUTOMATIC DEPENDENT SURVEILLANCE

(i) The Automatic Dependent Surveillance (ADS) endorsement will indicate that the controller has the skills to provide an Approach Control service with the use of ADS.

(ii) An ADS endorsement may be granted to a controller who is competent to provide an air traffic control service to arriving, departing or transiting aircraft with the use of ADS equipment.

(c) TERMINAL CONTROL

(1) KNOWLEDGE

(i) An applicant for a Terminal Control Endorsement shall have successfully completed a course administered by an institution that is recognized by the Authority as being qualified to administer such training and have demonstrated knowledge of the particular geographical area for which the Endorsement is desired through successful completion of written examinations on:

(A) runway layouts at airports within the Terminal Control Area (TCA);

(B) control zone and terminal control area airspace rules and procedures;

(C) co-ordination procedures and airspace agreements between the Terminal Control Unit and other underlying and adjacent air traffic control units;

(D) available electronic aids to navigation and air traffic control;

(E) ATC equipment in the Terminal Control Unit and its operational use;

(F) prominent terrain and landmarks, air navigation aids and ATC facilities within a 50 nautical mile radius beyond the airspace under the jurisdiction of the Terminal Control Unit;

(G) regular aircraft operating characteristics and air traffic flows;

(H) meteorological phenomena peculiar to that Terminal Control Area and adjacent regions;

(I) search and rescue alerting plans and emergency procedures; and

(J) holding, approach, missed approach and departure procedures, including protected airspace configurations.

(2) EXPERIENCE

(i) During the twelve months preceding the issuance of a Terminal Control endorsement, the applicant shall have:

(ii) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training; and

(iii) served under the supervision of a qualified terminal designated instructor for:

(A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence; or

(B) not less than one month in the case of the initial issue of a Terminal Control endorsement to the holder of a licence endorsed with an Approach Control Rating or Area Control Rating.

2.7.4.5 AREA CONTROL PROCEDURAL RATING

(a) An Area Control Procedural (ACP) rating entitles the holder to provide an air traffic control service in control areas without the use of surveillance equipment.

(b) The ACP rating may be granted to controllers who are competent to provide an air traffic control service without the use of any surveillance equipment.

(c) The ACP rating has no associated rating endorsements. However, the Authority may wish to develop their own endorsements to be associated with this rating.

(d) A valid rating shall include a Unit endorsement.

2.7.4.6 AREA CONTROL SURVEILLANCE RATING

(a) An Area Control Surveillance (ACS) rating entitles the holder to provide the air traffic control service in control areas with the use of surveillance equipment. To be valid, the rating must include either a radar, or Automatic Dependent Surveillance (ADS) endorsement.

(b) The Area Control Surveillance (ACS) rating may be granted to a controller who is competent to provide an air traffic control service with the use of surveillance equipment.

(c) A valid rating shall include a Unit endorsement.

2.7.4.7 AREA CONTROL SURVEILLANCE RATING ENDORSEMENTS

(a) RADAR

(1) A radar endorsement indicates that the controller has the skills to provide an air traffic control service in control areas, with the use of surveillance radar equipment.

(2) A radar endorsement may be granted to a controller who is competent to provide an air traffic control service in control areas, with the use of surveillance radar equipment.

(b) AUTOMATIC DEPENDENT SURVEILLANCE

(1) An Automatic Dependent Surveillance (ADS) endorsement entitles the holder to provide an air traffic control service with the use of ADS information.

(2) The ADS endorsement may be granted to a controller who is competent to provide an air traffic control service of the type notified on the rating endorsement with the use of ADS information.

(c) TERMINAL CONTROL

(1) KNOWLEDGE

(i) An applicant for a Terminal Control Endorsement shall have successfully completed a course administered by an institution that is recognized by the Authority as being qualified to administer such training and have demonstrated knowledge of the particular geographical area for which the Endorsement is desired through successful completion of written examinations on:

(A) runway layouts at airports within the Terminal Control Area (TCA);

(B) control zone and terminal control area airspace rules and procedures;

(C) co-ordination procedures and airspace agreements between the Terminal Control Unit and other underlying and adjacent air traffic control units;

(D) available electronic aids to navigation and air traffic control;

(E) ATC equipment in the Terminal Control Unit and its operational use;

(F) prominent terrain and landmarks, air navigation aids and ATC facilities within a 50 nautical mile radius beyond the airspace under the jurisdiction of the Terminal Control Unit;

(G) regular aircraft operating characteristics and air traffic flows;

(H) meteorological phenomena peculiar to that Terminal Control Area and adjacent regions;

(I) search and rescue alerting plans and emergency procedures; and

(J) holding, approach, missed approach and departure procedures, including protected airspace configurations.

(2) EXPERIENCE

(i) During the twelve months preceding the issuance of a Terminal Control endorsement, the applicant shall have:

(ii) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training; and

(iii) served under the supervision of a qualified terminal designated instructor for:

(A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence; or

(B) not less than one month in the case of the initial issue of a Terminal Control endorsement to the holder of a licence endorsed with an Approach Control Rating or Area Control Rating.

2.7.5 DESIGNATED ATCO INSTRUCTOR

2.7.5.1 REQUIREMENTS AND SKILL TEST

(a) AGE. An applicant for a designated ATCO Instructor shall be at least 21 years of age.

(b) MEDICAL. An applicant for a designated ATCO Instructor shall have a Class 3 medical certificate.

(c) GENERAL ELIGIBILITY. An applicant for a designated ATCO Instructor shall:

(1) Hold at least the license and/or class/type ratings as applicable for which examining authority is sought;

(2) Hold at least the instructor rating endorsement for which examining authority is sought or be serving in a comparable position as a check ATCO or comparable position in an Approved Training Organisation;

(3) Have a reputation for integrity and dependability in the industry and the community;

(4) Have a good record as a ATCO in regard to accidents, and violations; and

(5) Have ATCO licence/ratings that have never been revoked for falsification or forgery;

(6) Consistently shown satisfactory performance in the provision of Air Traffic Services.

(d) The ATCO recommended for approval as Instructor shall be known for his / her impartiality, free from prejudices and strong likes and dislikes and capable of recording just and fair assessment.

(e) The ATCO recommended for approval as Instructor shall be capable of instilling high standard of discipline in the profession.

(f) The ATCO once approved as Instructor may be disqualified by Authority if subsequently found lacking in any of the aforesaid qualities. Besides, the Chief of Air Traffic Management and the Chief of ATC Training from the concerned organization may recommend to the Authority the disqualification of an ATCO Instructor giving adequate justification.

(g) In case adequate number of ATCOs meeting fully the criteria laid down in this Part are not available, the Authority may in its discretion enpanel the appropriate skills of several ATCOs to conduct the complete testing of candidates as necessary.

(h) KNOWLEDGE: The applicant for a designated ATCO Instructor shall complete a designated training course in air traffic services and the current ATC ratings in the relevant air traffic control units i.e Tower, Area, approach, Approach Radar and Area Radar, as relevant, for the specific area for which designation is sought.

(i) SKILL TEST. The applicant for a designated ATCO Instructor shall undergo check by Authority nominated Examiner ATCO for proficiency as Instructor ATCO before granting approval.

(j) MAINTAINING CURRENCY. After designation, a designated ATCO Instructor shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority, and

(2) Maintain a current and valid:

(i) ATC licence, and if applicable, class/type ratings appropriate to the designation; and

(ii) Class 3 medical certificate.

(k) PRIVILEGES. Subject to compliance with the requirements specified in this Part, the privileges of the instructor's designation are to give training and evaluation checks for a licence and rating(s) as listed below:

(1) Training of ATCOs for issue and renewal of ATC ratings.

(2) To evaluate and assess the required level of competence of air traffic controllers undergoing On-the-Job Training.

(3) To conduct proficiency checks of ATCOs who already hold the ATC rating;

(4) To monitor performance of ATCOs.

(l) VALIDITY. Subject to compliance with the requirements specified in this Part, the validity period of an Instructor's designation is 3 years from the date of approval unless suspended / withdrawn earlier by the Authority.

(m) RENEWAL.

(1) Renewal will be at the discretion of the Authority.

(2) The renewal for approval of Designated ATCO Instructor shall also be subject to check by the Authority nominated Designated Instructor.

(n) ADDITIONAL DESIGNATIONS. When the Authority deems it necessary for a designated ATCO Instructor to receive additional designations, the designated ATCO Instructor:

(o) Shall meet all the requirements in this Part for the designation.

2.7.5.2 MINIMUM EXPERIENCE REQUIREMENTS

(a) Experience ATCO Instructor:

(1) Total ATC experience of 2 years, having current procedural Tower, Approach or Area Control Centre ratings for approval as Procedural Instructor ATCO;

(2) Total ATC experience of 5 years having Current Radar ratings including proficiency in Radar Data Processing System and Flight Data Processing Systems for automated systems where applicable, for approval as Radar Instructor ATCO.

Note: Other qualifications being equal, preference will be given to the ATCOs who have held the ATC ratings for more than one station.

2.7.6 DESIGNATED ATCO EXAMINERS

2.7.6.1 REQUIREMENTS AND SKILL TEST

(a) AGE. An applicant for a designated ATCO examiner shall be at least 21 years of age.

(b) MEDICAL. An applicant for a designated ATCO examiner shall have a Class 3 medical certificate.

(c) GENERAL ELIGIBILITY. An applicant for a designated ATCO examiner shall:

(1) Hold at least the licence and/or class/type ratings as applicable for which examining authority is sought;

(2) Hold at least the instructor ratings for which examining authority is sought or be serving in a comparable position as a check ATCO or comparable position in an Approved Training Organisation;

(3) Have a reputation for integrity and dependability in the industry and the community**;**

(4) Have a good record as a ATCO and an instructor in regards to accidents, incidents, and violations;

(5) Have air traffic controller licence/ratings that have never been revoked for falsification or forgery;

(6) Consistently shown satisfactory performance in the provision of Air Traffic Services.

(d) The ATCO recommended for approval as Examiner shall be known for his / her impartiality, free from prejudices and strong likes and dislikes and capable of recording just and fair assessment.

(e) The ATCO recommended for approval as Examiner shall be capable of instilling high standard of discipline in the profession.

(f) The ATCO once approved as Examiner may be disqualified by the Authority if subsequently found lacking in any of the aforesaid qualities. Besides, the Chief of Air Traffic Management and the Chief of ATC Training from the concerned organisation may recommend to the Authority the disqualification of an Examiner ATCO giving adequate justification.

(g) In case adequate numbers of ATCOs meeting fully the criteria in this Part are not available, the Authority may in its discretion enpanel the appropriate skills of several ATCOs to conduct the complete testing of candidates as necessary.

(h) KNOWLEDGE: The applicant for a designated ATCO examiner shall complete a designated training course in air traffic services and the current ATC ratings in the relevant air traffic control units i.e Tower, Area, Approach, Approach Radar and Area Radar, as relevant, for the specific area for which designation is sought.

(i) SKILL TEST. The applicant for a designated ATCO examiner shall undergo check by the Authority nominated ATCO examiner for proficiency as ATCO examiner before granting approval.

(j) MAINTAINING CURRENCY. After designation, a designated ATCO examiner shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority, and

(2) Maintain a current and valid:

(i) ATC licence, and if applicable, ratings appropriate to the designation; and

(ii) Class 3 medical certificate.

(k) PRIVILEGES. Subject to compliance with the requirements specified in this Part, the privileges of the examiner's designation are to conduct skill tests and proficiency checks for a licence and rating(s) as listed below;

(i) To conduct skill test for issue and renewal of ATC ratings;

(ii) Training of Instructor / Examiner ATCO candidates; and

(iii) To exercise privileges of an ATCO Instructor.

(l) VALIDITY. Subject to compliance with the requirements specified in this Part, the validity period of an examiner's designation is 3 years from the date of approval unless suspended / withdrawn earlier by the Authority.

(m) RENEWAL.

(1) Renewal will be at the discretion of the Authority.

(2) The renewal for approval of Designated ATCO Examiner shall also be subject to check by the Authority nominated Designated Examiner.

(n) ADDITIONAL DESIGNATIONS. When the Authority deems it necessary for a designated ATCO examiner to receive additional designations, the designated ATCO examiner:

(1) Shall meet all the requirements in this Part for the designation.

2.7.6.2 MINIMUM EXPERIENCE REQUIREMENTS

(a) Experience ATCO Examiner:

(1) Total ATC experience of 5 years, having current procedural Tower, Approach and Area Control Centre ratings for approval as Procedural Examiner ATCO.

(2) Total ATC experience of 8 years and having Current Radar ratings including proficiency in Radar Data Processing System and Flight Data Processing System for automated systems where applicable for approval as Radar Examiner ATCO.

(3) Current Experience as an Instructor ATCO in the relevant ATC unit/s for 2 years at the specific station for which the approval is sought.

Note: Other qualifications being equal, preference will be given to the ATCOs who have held the ATC ratings for more than one station.

2.8 FLIGHT OPERATIONS OFFICER LICENCE, INSTRUCTORS, AND DESIGNATED EXAMINERS

Note: The flight operations officer licence can also be specified as flight dispatcher licence.

2.8.1 APPLICABILITY

(a) This subpart prescribes the requirements for the issue, renewal, and reissue of an FOO licence, instructors for FOO licences, and designation of FOO examiner.

2.8.2 GENERAL

(a) An applicant shall, before being issued an FOO licence, meet such requirements with respect to age, knowledge, experience, skill, medical fitness, and language proficiency as are specified for that licence.

(b) An applicant shall, for renewal or reissue of a licence, meet the requirements as are specified for that licence.

(c) An applicant shall demonstrate the ability to read, write, speak, and understand the language of Curaçao, and English if required by the Authority.

2.8.3 FLIGHT OPERATIONS OFFICER LICENCE

2.8.3.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an FOO licence shall be at least 21 years of age.

(b) KNOWLEDGE. The applicant for an FOO licence shall receive and log training from an authorised instructor on the following subjects appropriate to the privileges of the FOO:

(1) AIR LAW.

(i) Rules and regulations relevant for operational control and to the holder of an FOO licence;
(ii) Appropriate ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) Principles of operation of aeroplane powerplants, systems, and instruments;
(ii) Operating limitations of aeroplanes and powerplants;
(iii) MEL and configuration deviation list;

(3) FLIGHT PERFORMANCE CALCULATION, PLANNING PROCEDURES AND LOADING.

(i) Effects of loading and mass distribution on aircraft performance and flight characteristics; mass and balance calculations;
(ii) Operational flight planning; fuel consumption and endurance calculations; alternate aerodrome selection procedures; en route cruise control; extended range operation;
(iii) Take-off performance including field length, climb, and obstacle criteria and limitation;
(iv) Cruise performance including minimum altitudes, decompression/engine out/gear down scenario planning;
(v) Landing performance including approach climb and field length criteria and limitations;
(vi) Preparation and filing of ATS flight plans;

(vii) Basic principles of computer-assisted planning systems;

(4) HUMAN PERFORMANCE.

(i) Human performance relevant to operational control duties, including principles of threat and error management;

(5) METEOROLOGY.

(i) Aeronautical meteorology; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;
(ii) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information;

(6) NAVIGATION.

(i) Principles of air navigation with particular reference to instrument flight;

(7) OPERATIONAL PROCEDURES.

(i) Use of aeronautical documentation and standard operating procedures;
(ii) Operational procedures for the carriage of freight and dangerous goods;
(iii) Procedures relating to aircraft accidents and incidents; emergency flight procedures;
(iv) Procedures relating to unlawful interference and sabotage of aircraft;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate category of aircraft; and

(9) RADIOTELEPHONY (RT);

(i) Procedures for communicating with aircraft and relevant ground stations.

(c) KNOWLEDGE TESTING. The applicant for an FOO licence shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and
(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test.

(d) EXPERIENCE.

(1) The applicant for an FOO licence shall have:

(i) A total of 2 years of service in any one or in any combination of the capacities specified in paragraphs 2.8.3.1(d)(1)(i)(A) to (C) of this subsection, inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least 1 year:

(A) A flight crew member in air transportation; or
(B) A meteorologist in an organisation providing operational control to aircraft in air transportation; or
(C) An ATCO; or a technical supervisor of FOOs or air transportation flight operations systems; or

(ii) At least 1 year as an assistant in the dispatching of air transport; or
(iii) Satisfactorily completed a course of approved training.

(2) The applicant shall have served under the supervision of an FOO for at least 90 working days within the 6 months immediately preceding the application.

(e) SKILL. The applicant shall have demonstrated the ability, by passing a skill test on the areas of operation in the IS 2.3.8.2 for FOO, to:

(1) Identify and to retrieve aeronautical data and other information relevant for the analysis of operational situations and risks;

(2) Identify and evaluate the risk factors and the possible consequences for flight operations;

(3) Identify and evaluate actions considering risk, the effect on flight safety and regularity of the operation;

(4) Determine an appropriate course of action based on the responsibilities and policies described in the OM;

(5) Apply appropriate standard and non-standard procedures from the OM for the initiation, planning, continuation, diversion, or termination of flights in the interest of safety of the aircraft and regularity and efficiency of the operation;

(6) Make an accurate and operationally acceptable weather analysis; provide an operationally valid briefing on weather conditions of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates;

(7) Identify and apply operational limitations and minimums in relation to the weather, aircraft status, and appropriate navigation procedures;

(8) Determine the optimum flight path for a given segment and create accurate manual and/or computer-generated flight plans;

(9) Provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the holder of an FOO licence; and

(10) Recognise and manage threats and errors.

(f) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an FOO licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the Standards specified in ICAO Annex 6, as contained in Parts 8 and 9 of these regulations.

(g) VALIDITY. The validity period of the licence is 5 years. A licence shall become invalid when an FOO has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the FOO's ability to exercise the privileges of the licence has been re-established.

(h) RENEWAL. The FOO licence may be renewed by presenting to the Authority evidence of successfully passing a competency check on the areas of operation listed in IS 2.8.3.2 for FOO.

(i) RE-ISSUE. If the FOO licence has expired, the applicant shall have received refresher training acceptable to the Authority, and shall pass a skill test on the areas of operation contained in IS 2.8.3.2.

2.8.3.2 SKILL TEST FOR THE FLIGHT OPERATIONS OFFICER LICENCE

(a) The IS 2.8.3.2 contains the list of operations included in the FOO licence skill test.

2.8.4 INSTRUCTORS FOR FLIGHT OPERATIONS OFFICERS

2.8.4.1 REQUIREMENTS FOR THE FLIGHT OPERATIONS OFFICER INSTRUCTOR LICENCE

(a) AGE. An applicant for an FOO instructor licence and rating shall be at least 21 years of age.

(b) KNOWLEDGE.

(1) An applicant for an FOO instructor licence shall have met the instructor requirements in 2.2.6 of Part 2; and

(2) Any additional requirements, as may be specified by the Authority.

(c) EXPERIENCE. The applicant for an FOO instructor licence shall hold at least a current and valid FOO licence and shall have a minimum of 3 years of experience as an FOO.

(d) PRIVILEGES. The privileges of an FOO instructor licence are to give instruction to FOO licence applicants and to endorse those applicants for a knowledge or skill test, as applicable.

(e) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the FOO instructor licence is 2 years.

(f) RENEWAL. An FOO instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that the holder has, within the past 12 months preceding the expiry date:

(1) Conducted at least six exercises in an approved course for an FOO licence; or

(2) Received refresher training acceptable to the Authority.

(g) RE-ISSUE. If the FOO instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.

2.8.5 DESIGNATED EXAMINERS FOR FLIGHT OPERATIONS OFFICERS

2.8.5.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an FOO examiner shall be at least 23 years of age.

(b) GENERAL ELIGIBILITY. The applicant for an FOO examiner shall:

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for the FOO certification;

(2) Have held an FOO licence for at least 5 years prior to the designation;

(3) Have been actively exercising the privileges of the FOO licence in commercial air transport in the previous 3 years;

(4) Have a good record as an FOO and as a person engaged in the industry and community, with a reputation for honesty and dependability;

(5) Have satisfactorily completed the FOO examiner orientation programme with the Authority; and

(6) Have available a test site that is fully capable of doing all items required for the proper dispatch of a commercial flight in accordance with the regulatory requirements. This may be the Flight Operations Office of an active commercial airline.

2.8.5.2 KNOWLEDGE

(a) The applicant shall have passed a pre-designation test on the following:

(1) Air law and regulations for FOO personnel;

(2) Aircraft knowledge on the aircraft used for testing;

(3) Flight performance calculation and planning procedures;

(4) Human performance;

(5) Meteorology;

(6) Navigation;

(7) Radio communication; and

(8) Recent changes in technology, to include fly-by-wire aircraft systems, GPS navigation, required navigation performance (RNP) requirements, TCAS, ADS-B, and enhanced wind shear systems.

2.8.5.3 SKILL

(a) The Authority will observe the applicant conducting a complete, actual FOO certification using the approved STS in a satisfactory manner.

(b) The applicant shall complete all required paperwork for the certification as required by the Authority.

2.8.5.4 CURRENCY

(a) After designation, an FOO examiner shall maintain currency by:

(1) Attending initial and recurrent training conducted by the Authority; and

(2) Maintaining a current and valid FOO licence.

(b) The FOO examiner shall conduct at least six (6) skill tests during any 12-calendar-month period in order for the designation to remain current.

(c) The FOO examiner shall be observed by the Authority in the conduct of a skill test at least once every 12 calendar months.

2.8.5.5 PRIVILEGES

(a) The FOO examiner may conduct skill tests for the FOO licence in accordance with approved STS standards.

(b) The FOO examiner may conduct or monitor any portion of a computerised knowledge test.

2.8.5.6 VALIDITY

(a) The FOO examiner licence shall be valid for 3 years.

2.8.5.7 RENEWAL

(a) The FOO examiner designation may be renewed by the Authority if:

(1) The need for the designation remains valid; and

(2) The performance of the examiner has been satisfactory.

2.9 AERONAUTICAL METEOROLOGICAL PERSONNEL

The requirements for qualifications, competencies, education, and training for all aeronautical meteorological personnel are the responsibility of the World Meteorological Organization (WMO), in accordance with ICAO Doc 7475, *Working Arrangements Between the International Civil Aviation Organization and the World Meteorological Organization*. The requirements can be found in the Technical Regulations (WMO-No. 49), Volume I, *General Meteorological Standards and Recommended Practices*, Part V, Qualifications and Competencies of Personnel Involved in the Provision of Meteorological (Weather and Climate) and Hydrological Services; Part VI, Education and Training of Meteorological Personnel; and Appendix A, Basic Instruction Packages.

2.10 PARACHUTE RIGGER LICENCES, INSTRUCTORS, AND DESIGNATED PARACHUTE RIGGER EXAMINERS

2.10.1 GENERAL

2.10.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for issuance of PR licence and ratings, and the conditions under which those licences and ratings are necessary.

2.10.1.2 ELIGIBILITY REQUIREMENTS: GENERAL

(a) To be eligible for a PR licence, a person shall:

(b) Be at least 18 years of age;

(1) Be able to read, speak, write, and understand the language of Curaçao, and English if required by the Authority; and

(2) Comply with the sections of this subpart that apply to the licence and type rating sought.

2.10.1.3 LICENCE REQUIRED

(a) No person may pack, maintain, or modify any personnel-carrying parachute intended for emergency use in connection with civil aircraft of Curaçao unless he or she holds an appropriate current licence and type rating issued under this subpart and complies with this subpart.

(b) Except as allowed by paragraph 2.10.1.3(c) of this subsection, no person may pack, maintain, or modify any main parachute of a dual parachute pack to be used for intentional jumping from a civil aircraft of Curaçao unless he or she has an appropriate valid licence issued under this subpart.

(c) A person who does not hold a licence may pack the main parachute of a dual parachute pack that is to be used by that person for intentional jumping.

(d) Each person who holds a PR licence shall present it for inspection upon the request of the Authority or an authorised representative of the Director General office, or any Federal, State, or local law enforcement officer.

(e) The following PR licences are issued under Part 2:

(1) Senior PR

(2) Master PR

(f) Subsections 2.10.1.9 through 2.10.1.12 of Part 2 do not apply to parachutes packed, maintained, or modified for the use of the armed forces.

2.10.1.4 SENIOR PARACHUTE RIGGER LICENCE – EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS

(a) The applicant for a senior PR licence shall:

(1) Present evidence satisfactory to the Authority that he or she has packed at least 20 parachutes of each type for which he or she seeks a rating, in accordance with the manufacturer's instructions and under the supervision of a licensed PR holding a rating for that type or a person holding an appropriate military rating;

(2) Pass a knowledge test, with respect to a parachute applicable to at least one type of parachute appropriate to the type rating sought, on:

(i) The construction, packing, and maintenance;

(ii) The manufacturer's instructions; and

(iii) The regulations of this subpart; and

(3) Pass a skill test showing the ability to pack and maintain at least one type of parachute appropriate to the type rating sought.

(b) Requirements for the skill test are contained in the IS 2.10.1.4 for parachute rigger.

2.10.1.5 MASTER PARACHUTE RIGGER LICENCE – EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS

(a) An applicant for a master PR licence shall meet the following requirements:

(1) Present evidence satisfactory to the Authority of at least 3 years of experience as a PR and having satisfactorily packed at least 100 parachutes of each of two types appropriate to type ratings held, in accordance with the manufacturer's instructions:

(i) While a licensed and appropriately rated senior PR; or

(ii) While under the supervision of a licensed and appropriately rated PR or a person holding appropriate military ratings;

(iii) An applicant may combine experience specified in paragraphs 2.10.1.5(a)(1)(i) and (ii) of this subsection to meet the requirements of this subsection;

(2) If the applicant is not the holder of a senior PR licence, pass a knowledge test with respect to parachutes appropriate to the type rating sought, on:

(i) Their construction, packing, and maintenance;

(ii) The manufacturer's instructions; and

(iii) The regulations of this subpart.

(3) Pass a skill test showing the ability to pack and maintain two types of parachutes appropriate to the type ratings sought.

(b) Requirements for the skill test are contained in the IS 2.10.1.5 for parachute rigger.

2.10.1.6 TYPE RATINGS

(a) The following type ratings are issued under this subpart:

(1) Seat

(2) Back

(3) Chest

(4) Lap

(b) The skill test requirements for a type rating are contained in the IS 2.10.1.6 for PR.

(c) The holder of a senior PR licence who qualifies for a master PR licence is entitled to have placed on the master PR licence the ratings that were on the senior PR licence.

2.10.1.7 ADDITIONAL TYPE RATINGS REQUIREMENTS

(a) A licensed PR who applies for an additional type rating shall:

(1) Present evidence satisfactory to the Authority of having packed at least 20 parachutes of the type rating sought, in accordance with the manufacturer's instructions and under the supervision of a licensed PR holding a rating for that type or a person holding an appropriate military rating; and

(2) Pass a skill test, to the satisfaction of the Authority, showing the ability to pack and maintain the type of parachute for which the applicant seeks a rating.

2.10.1.8 PRIVILEGES

(a) A licensed senior PR may:

(1) Pack or maintain (except for major repair) any type of parachute for which the licensed senior PR is rated; and

(2) Supervise other persons in packing any type of parachute for which the licensed senior PR is rated.

(b) A licensed master PR may:

(1) Pack, maintain, or modify any type of parachute for which the licensed master PR is rated; and

(2) Supervise other persons in packing, maintaining, or modifying any type of parachute for which the licensed master PR is rated.

(c) A licensed PR need not comply with 2.10.1.9 through 2.10.1.12 of Part 2 (related to facilities, equipment, performance standards, records, recent experience, and seal) in packing, maintaining, or modifying (if authorised) the main parachute of a dual parachute pack to be used for intentional jumping.

2.10.1.9 FACILITIES AND EQUIPMENT

(a) A licensed PR shall not exercise the privileges of his licence unless he or she has at least the following facilities and equipment available:

(1) A smooth top table at least 1 m wide by 10 m long;

(2) Suitable housing that is adequately heated, lighted, and ventilated for drying and airing parachutes;

(3) Enough packing tools and other equipment to pack and maintain the types of parachutes serviced; and

(4) Adequate housing facilities to perform applicable duties and to protect tools and equipment.

2.10.1.10 PERFORMANCE STANDARDS AND RECENCY REQUIREMENTS

(a) A licensed PR shall not:

(1) Pack, maintain, or modify any parachute unless he or she is rated for that type;

(2) Pack a parachute that is not safe for emergency use;

(3) Pack a parachute that has not been thoroughly dried and aired;

(4) Modify a parachute in a manner that is not specifically authorised by the Authority or the manufacturer;

(5) Pack, maintain, or modify a parachute in any manner that deviates from procedures approved by the Authority or the manufacturer of the parachute; or

(6) Exercise the privileges of the licence and type rating unless he or she understands the current manufacturer's instructions for the operation involved and has:

(i) Performed duties under the licence for at least 90 days within the preceding 12 months; or

(ii) Shown to the Authority the ability to perform those duties.

2.10.1.11 RECORDS

(a) Each licensed PR shall keep a record of the packing, maintenance, and modification of parachutes or the supervision of those activities.

(b) Each licensed PR who packs a parachute shall enter, on the parachute packing record attached to the parachute, the date and place of the packing and a notation of any defects found during any inspection, and shall sign that record with that licensed PR's name and licence number.

(c) The record required by paragraph 2.10.1.11(a) of this subsection shall contain, with respect to each

parachute worked on, a statement of the:

(1) Type and make;

(2) Serial number;

(3) Name and address of its owner or user;

(4) Kind and extent of the work performed;

(5) Date when and the place where the work was performed; and

(6) Results of any drop tests made with it.

(d) Each person who makes a record under paragraph 2.10.1.11(a) of this subsection shall keep it for at least 2 years after the date it is made.

2.10.1.12 SEAL

(a) Each licensed PR shall have a seal with an identifying mark prescribed by the Authority, and a seal press.

(b) After packing a parachute, the PR shall seal the pack with that PR's seal in accordance with the manufacturer's recommendation for that type of parachute.

2.10.1.13 DURATION OF PARACHUTE RIGGER LICENCE

(a) VALIDITY. The validity period of the licence is 5 years. A licence shall become invalid when a PR has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the PRs ability to exercise the privileges of the licence has been re-established.

(b) RENEWAL. A PR licence that has not expired may be renewed for an additional 5 years if the holder presents to the Authority evidence that the holder, within the past 6 months preceding the expiry date:

(1) Been actively engaged in the duties of a PR; or

(2) Received refresher training acceptable to the Authority.

(c) RE-ISSUE. If the PR licence has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass a skill test on the areas of operation in the IS 2.10.1.13 for parachute rigger, as applicable to the licence and ratings to be renewed.

2.10.1.14 DISPLAY OF LICENCE

(a) Each person who holds a PR licence shall keep it within the immediate area where that person normally exercises the privileges of the licence and shall present it for inspection upon the request of the Authority or an authorised representative of the Director General office, or any Federal, State, or local law enforcement officer.

2.10.2 PARACHUTE RIGGER INSTRUCTOR REQUIREMENTS

2.10.2.1 REQUIREMENTS FOR A PARACHUTE RIGGER INSTRUCTOR LICENCE

(a) AGE. The applicant for a PR instructor licence and rating shall be at least 21 years of age.

(b) KNOWLEDGE.

(1) The applicant for a PR instructor licence shall have met the instructor requirements in 2.2.6 of Part 2; and

(2) Any additional requirements as may be specified by the Authority.

(c) EXPERIENCE. The applicant for a PR instructor licence shall hold at least a current and valid PR licence and ratings applicable to the instructor licence sought and shall have a minimum of 3 years

of experience as a PR.

(d) PRIVILEGES. The privileges of a PR instructor licence and rating are to give instruction to PR licence applicants and to endorse those applicants for a knowledge or skill test, as applicable.

(e) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the PR instructor licence is 2 years.

(f) RENEWAL. A PR instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he or she has, within the past 12 months preceding the expiry date:

(1) Conducted at least six exercises in an approved course for a PR licence; or

(2) Received refresher training acceptable to the Authority.

(g) RE-ISSUE. If the PR instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.

2.10.3 DESIGNATED PARACHUTE RIGGER EXAMINER REQUIREMENT

2.10.3.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a DPRE licence shall be at least 23 years of age.

(b) GENERAL ELIGIBILITY. The applicant for a DPRE licence shall:

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for the DPRE certification;

(2) Have held a DPR licence for at least 5 years prior to the designation;

(3) Have been actively exercising the privileges of the DPR for the previous 3 years;

(4) Have a good record as a DPR and as a person engaged in the industry and community with a reputation for honesty and dependability;

(5) Have satisfactorily completed the DPRE orientation programme with the Authority;

(6) Have a fixed base of operation adequately equipped for all practical subject areas to return to service condition;

(7) Have at the fixed base of operation adequate equipment to test the tasks in each area of operation listed in the STS; and

(8) Have the tools, equipment, current publications, and materials required to complete a project assignment as recommended by the parachute manufacturer or industry standards.

2.10.3.2 KNOWLEDGE

(a) The applicant for a DPRE licence shall have passed a pre-designation test on the following:

(1) Air law and regulations for DPR personnel;

(2) Packing and maintaining a wide variety of parachutes;

(3) Modifications of parachutes in accordance with manufacturers and industry standards

(4) Proper use of seals for identification purposes; and

(5) Proper record keeping requirements.

2.10.3.3 SKILL

(a) The Authority will observe the applicant conducting a complete actual senior PR or master PR certification using the approved IS 2.10.3.3 in a satisfactory manner.

(b) The applicant shall complete all required paperwork for the certification as required by the Authority.

2.10.3.4 CURRENCY

(a) After designation, a DPRE shall maintain currency by:

(1) Attending initial and recurrent training conducted by the Authority; and

(2) Maintaining a current and valid PR licence and applicable ratings.

(b) The DPRE shall conduct at least 6 skill tests during any 12-calendar-month period in order for the designation to remain current.

(c) The DPRE shall be observed by the Authority in the conduct of a skill test at least once every 12 calendar months.

2.10.3.5 PRIVILEGES

(a) The DPRE may conduct skill tests for the senior parachute rigger and master parachute rigger licence in accordance with approved IS 2.10.3.5.

(b) The DPRE may conduct or monitor any portion of a computerised knowledge test.

2.10.3.6 VALIDITY

(a) The DPRE designation shall be valid for 3 years.

2.10.3.7 RENEWAL

(a) The DPRE designation may be renewed by the Authority if:

(1) The need for the designation remains valid;

(2) The performance of the DPRE has been satisfactory; and

(3) The DPRE has attended the DPRE seminar conducted by the Authority in the previous 12-month period.

2.11 MEDICAL PROVISIONS FOR LICENSING

2.11.1 GENERAL

2.11.1.1 APPLICABILITY

(a) This subpart prescribes the requirements and procedures for issuing, renewing, and reissuing Class 1, Class 2, and Class 3 medical certificates.

(b) The medical assessment process of licence holders shall include basic safety management principles in its:

(1) Routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and

(2) Continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

(c) The Authority will implement appropriate aviation-related health promotion for licence holders subject to a medical assessment to reduce future medical risks to flight safety.

Note: Paragraph 2.11.1.1(b) of Part 2 indicates how appropriate topics for health promotion activities may be determined.

2.11.1.2 MEDICAL FITNESS

(a) The applicants for a flight crew licence or ATCO licence or, as of 03 November 2022, remote flight crew members, shall hold a medical certificate issued in accordance with Part 2.

(b) Until 02 November 2022, except as provided in Part 2, flight crew members and ATCOs shall not exercise the privileges of their licence unless they hold a current medical certificate appropriate to the licence.

(c) As of 03 November 2022, except as provided in Part 2, flight crew members, remote flight crew members, and ATCOs shall not exercise the privileges of their licence unless they hold a current medical certificate appropriate to the licence.

2.11.1.3 CIVIL AVIATION MEDICAL EXAMINERS (CAME'S)

(a) Subject to compliance with the requirements specified in Part 2, the Authority may designate qualified and licensed physicians in the practice of medicine to be authorised as CAMEs and to conduct medical examinations of fitness of applicants for the issue, renewal, or reissue of the licences or ratings specified in Part 2. CAMEs may be designated outside of Curaçao.

(b) CAMEs shall have had, or shall receive, initial and recurrent training in aviation medicine. Initial training shall include;

(1) Basic training in aviation medicine for Class 2 and 3 medical examinations on the subjects prescribed in IS 2.11.1.3(a); and

(2) Advanced training in aviation medicine for Class 1 medical examinations on the subjects prescribed in IS 2.11.1.3(a).

(c) CAMEs shall acquire knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.

Note: Examples of practical knowledge and experience are flight experience, simulator experience, on-site observation, or any other hands-on experience deemed by the Authority to meet this requirement.

(d) The CAME shall be required to submit sufficient information to the Authority to enable the Authority to undertake medical certificate audits.

Note: The purpose of such auditing is to ensure that medical examiners meet applicable standards for good medical practice and aeromedical risk assessment. Guidance on aeromedical risk assessment is contained in ICAO Doc 8984, Manual of Civil Aviation Medicine.

(e) The authorisation of an CAME is valid for 3 years. The CAME shall have completed at least 10 examinations for a medical certificate per year. Renewal of the AME designation will be at the discretion of the Authority.

(f) Having completed the medical examination of an applicant in accordance with 2.11 of Part 2, the CAME shall submit a signed report to the Authority, detailing the results of the examination. When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials of the Licensing Authority.

(g) If the medical examination is carried out by a constituted group of CAMEs, the head of the group will be appointed by the Authority, which will be responsible for coordinating the results of the examination and signing the report.

Note: If the medical report is submitted to the Authority in electronic format, adequate identification of the examiner shall be established.

(h) The Authority retains the right to reconsider any action of an CAME.

(i) The CAME shall respect medical confidentiality at all times.

(j) The CAME shall securely hold all medical reports and records with accessibility restricted to authorised personnel.

2.11.1.4 CIVIL AVIATION MEDICAL EXAMINATIONS

(a) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the medical examiner a declaration stating whether they have previously undergone such an examination and, if so, the date, place, and results of the last examination.

(b) The applicant shall indicate to the medical examiner whether a medical certificate has previously been refused, revoked, or suspended and, if so, the reason for such refusal, revocation, or suspension.

(c) Each applicant for a medical certificate shall provide the medical examiner with a personally certified statement of medical facts concerning personal, familial, and hereditary history.

(d) Each applicant for a medical certificate shall produce proof of identification as specified in paragraph 2.2.5.5(c) of Part 2.

(e) Any false declaration made to a medical examiner by an applicant for a licence or rating shall be reported to the Authority for such action as may be considered appropriate.

(f) The applicant shall complete the appropriate application form as prescribed by the Authority.

2.11.1.5 SPECIAL CIRCUMSTANCES

(a) If the medical requirements prescribed in Part 2 for a particular licence are not met, the appropriate medical certificate will not be issued, renewed, or reissued unless the following conditions are fulfilled:

(1) An accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardise flight safety;

(2) Operational conditions and the relevant ability, skill, and experience of the applicant have been given due consideration; and

(3) The licence is endorsed by the Authority with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.

(b) The CAME shall report to the Authority any individual case where, in the CAME's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardise flight safety.

2.11.1.6 DECREASE OF MEDICAL FITNESS

(a) Holders of licences provided for in Part 2 shall not exercise the privileges of their licences and related ratings at any time when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise these privileges.

2.11.1.7 USE OF PSYCHOACTIVE SUBSTANCES

(a) Holders of licences provided for in Part 2 shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.

(b) Holders of licences provided for in Part 2 shall not engage in any problematic use of substances.

2.11.1.8 MEDICAL CERTIFICATE

(a) THE MEDICAL CERTIFICATE.

(1) The medical certificate shall be:

(i) Issued in a form and manner prescribed by the Authority; and

(ii) Carried in the possession of the personnel licence holder at all times while exercising the privileges of a personnel licence.

(2) The items required on the medical certificate are prescribed in IS 2.11.1.8.

(b) ISSUE OF MEDICAL CERTIFICATES.

(1) A medical certificate will be issued to any applicant who meets the medical requirements prescribed in this subpart, based on medical examination and evaluation of the applicant's history and condition.

(i) The issue of the Class 1 medical certificate may be specifically delegated to an AME.

(ii) The issue of Class 2 and Class 3 medical certificates may be delegated to any authorised AME.

(2) Each applicant for a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this subpart.

(3) Any applicant who does not meet the medical requirements of this subpart may apply for the discretionary issuance of a certificate under 2.11.1.5 of this part.

(c) VALIDITY.

(1) The validity period of the medical certificate shall be:

(i) 12 months for the Class 1 for the CPL, MPL, and ATPL;

(ii) 12 months for the Class 2 for the FE and FN licences;

(iii) 60 months for the Class 2 for the PPL;

(iv) 48 months for the Class 3 for the ATCO licence; and

(v) 48 months for an RPL – aeroplane, airship, glider, rotorcraft, powered-lift, or free balloon.

(2) The exceptions for the validity period of the medical certificate are:

(i) When holders have passed their 40th birthday:

(A) The 12-month interval specified for the holder of a CPL or an ATPL who is engaged in carrying passengers in single-pilot commercial air transport operations shall be reduced to 6 months; and

(B) The 60-month interval specified for the PPL and the 48-month interval specified for the RPL and the ATCO licence shall be reduced to 24 months.

(ii) When holders have passed their 50th birthday, the 24-month interval specified for the PPL, the RPL, and the ATCO licence shall be reduced to 12 months.

(iii) When holders have passed their 60th birthday, the 12-month interval specified for the holder of a CPL, an MPL, or an ATPL who is engaged in commercial air transport operations shall be reduced to 6 months.

(3) For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. The period of validity shall, for the last month counted, include the day that has the same calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.

(4) The period of validity of a medical certificate may be extended up to 45 days at the discretion of the Authority.

Note: It is advisable to let the calendar day on which the medical certificate expires remain constant year after year by allowing the expiry date of the current medical certificate to be the beginning of the new

validity period under the proviso that the medical examination takes place during the period of validity of the current medical certificate but no more than 45 days before it expires.

(5) The period of validity of a medical certificate may be reduced when clinically indicated.

(d) RENEWAL OR REISSUE OF A MEDICAL CERTIFICATE.

(1) The requirements to be met for the renewal or reissue of a medical certificate are the same as those for the initial certificate except where otherwise specifically stated.

(2) The renewal of the Class 1, 2, and 3 medical certificates may be delegated to the AME.

(3) The reissue of the Class 1 medical certificate will be either done by the Authority or specifically delegated to an AME.

(4) Reissue of the Class 2 and 3 medical certificates may be delegated to an AME.

(e) LIMITATION OR DENIAL.

(1) The Authority may, for medical reasons justified and notified to the applicant, limit or deny a medical certificate.

(f) SUSPENSION OR REVOCATION OF A MEDICAL CERTIFICATE.

(1) The Authority may, in accordance with 2.2.9 of this part, suspend or revoke a medical certificate issued, if it is established that an applicant or a certificate holder has not met, or no longer meets, the requirements of this part.

2.11.1.9 MEDICAL ASSESSOR

(a) The CAA medical assessor will periodically evaluate the competence of each CAME.

(b) The Authority will use the services of physicians experienced in the practice of aviation medicine when it is necessary to evaluate reports submitted to the Authority by medical examiners.

2.11.2 MEDICAL REQUIREMENTS

2.11.2.1 GENERAL

(a) An applicant for a medical certificate issued in accordance with Part 2 shall undergo a medical examination based on the following requirements:

(1) Physical and mental;

(2) Visual and colour perception; and

(3) Hearing.

2.11.2.2 PHYSICAL AND MENTAL REQUIREMENTS

(a) An applicant for any class of medical certificate shall be required to be free from:

(1) Any abnormality, congenital or acquired; or

(2) Any active, latent, acute, or chronic disability; or

(3) Any wound, injury, or sequelae from operation; or

(4) Any effect or side effect of any prescribed or non-prescribed therapeutic medication taken; such as would entail a degree of functional incapacity that is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

(b) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating

privileges.

2.11.2.3 VISUAL ACUITY TEST REQUIREMENTS

(a) Visual acuity tests shall be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30–60 cd/m²).

(b) Visual acuity shall be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

2.11.2.4 COLOUR PERCEPTION REQUIREMENTS

(a) The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.

(b) The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature, such as that provided by CIE standard illuminants C or D65 as specified by the CIE.

(c) An applicant obtaining a satisfactory result as prescribed by the Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the following restriction: valid daytime only.

2.11.2.5 HEARING TEST REQUIREMENTS

(a) Applicants shall be required to demonstrate hearing performance sufficient for the safe exercise of their licence and rating privileges.

(b) The hearing test may be conducted using a pure-tone audiometer or alternate method that will provide equivalent results. This test shall be performed at the first medical examination and then at specified intervals according to the class of medical examination and the age of the applicant.

(c) If a pure-tone audiometer is used for the hearing test, the reference zero for calibration shall be that of the ISO Recommendation R389, 1964.

(d) For hearing tests where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests under the following conditions:

(1) A quiet room is a room in which the intensity of the background noise is less than 35 dB(A) when measured on “slow” response of an “A”-weighted sound level meter.

(2) The sound level of an average conversational voice at 1 m from the point of output is 60 dB(A) and that of a whispered voice is 45 dB(A). At 2 m from the speaker, the sound is 6 dB(A) lower.

(e) The holder of a PPL with an IR shall meet the hearing requirements for the Class 1 medical certificate.

2.11.2.6 CLASS 1 MEDICAL CERTIFICATE

(a) CERTIFICATE ISSUE AND RENEWAL.

(1) The level of medical fitness to be met for the renewal of a Class 1 medical certificate shall be the same as that for the initial assessment except where otherwise specifically stated.

(2) An applicant for a CPL, an MPL, or an ATPL shall undergo an initial medical examination for the issue of a Class 1 medical certificate.

(3) Except where otherwise stated in this subpart, the holder of a CPL, an MPL, or an ATPL shall have his or her Class 1 medical certificate renewed at intervals not exceeding those specified

below.

(4) A Class 1 medical certificate will be issued when the applicant complies with the requirements of Part 2;

(b) PHYSICAL AND MENTAL REQUIREMENTS.

(1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioural disorder, due to the use of psychoactive substances, that induces dependence syndrome induced by alcohol or other psychoactive substances;

(iii) Schizophrenia or a schizotypal or delusional disorder;

(iv) A mood (affective) disorder;

(v) A neurotic, stress-related, or somatoform disorder;

(vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(x) A mental disorder not otherwise specified.

(3) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or nonprogressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(4) An applicant who has suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges, shall be assessed as unfit.

(5) An applicant shall not possess any abnormality of the heart, congenital or acquired, that is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(6) An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(7) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with the safe exercise of the applicant's licence or rating privileges.

(8) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate.

(9) Electrocardiography shall be included in reexamination of applicants over the age of 50 at least annually.

Note: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

(10) The systolic and diastolic blood pressures shall be within normal limits.

(11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges.

Note: Extensive guidance on the subject is published in ICAO Doc 8984, Manual of Civil Aviation Medicine*.*

(12) There shall be no significant functional or structural abnormality of the circulatory system.

(13) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum, or pleura likely to result in incapacitating symptoms during normal or emergency operations.

(14) Radiography shall form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(15) An applicant with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(16) An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(17) The use of drugs for control of asthma shall be disqualifying except for those drugs the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(18) An applicant with active pulmonary tuberculosis shall be assessed as unfit.

(19) An applicant with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

(20) An applicant with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

(21) An applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.

(22) An applicant with sequela of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacity in flight, in particular, any obstructions due to stricture or compression, shall be assessed as unfit.

(23) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the medical authority designated for the purpose by Curaçao and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

(24) An applicant with metabolic, nutritional, or endocrine disorders likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

(25) An applicant with insulin-treated diabetes mellitus shall be assessed as unfit.

(26) An applicant with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(27) An applicant with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and the applicant's condition is found unlikely to interfere

with the safe exercise of the applicant's licence and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(28) An applicant with renal or genitourinary disease shall be assessed as unfit unless adequately investigated and the applicant's condition is found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(29) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

(30) An applicant with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular, any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(31) An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(32) An applicant who is seropositive for HIV shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

(33) An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy. The fit assessment period may be limited from the end of the 12th week until the end of the 26th week of gestation

(34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.

(35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons, or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Any sequelae after lesions affecting the bones, joints, muscles, or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(36) The applicant shall not possess any abnormality or disease of the ear or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(37) There shall be:

(i) No disturbance of vestibular function;

(ii) No significant dysfunction of the Eustachian tubes; and

(iii) No unhealed perforation of the tympanic membranes.

(38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

(39) There shall be no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(40) An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) VISUAL REQUIREMENTS.

(1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or

their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each reexamination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury, or eye surgery.

(3) An applicant may use contact lenses to meet the requirement of paragraph 2.11.2.6(c)(2) of this subsection, provided that:

(i) The lenses are monofocal and non-tinted;

(ii) The lenses are well tolerated; and

(iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

(4) An applicant with a large refractive error shall use contact lenses or high-index spectacle lenses.

Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

(5) An applicant whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to the initial medical certificate and every 5 years thereafter.

Note: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

(6) An applicant who has undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless the applicant is free from those sequelae which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(7) An applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: Any applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.

Note 2: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.

(8) When near correction is required in accordance with paragraph 2.11.2.6(c) of this subsection, a second pair of near-correction spectacles shall be kept available for immediate use.

(9) The applicant shall be required to have normal fields of vision.

(10) The applicant shall be required to have normal binocular function.

(11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.

(d) HEARING REQUIREMENTS.

(1) The applicant shall be tested by pure-tone audiometry:

(i) At the initial medical examination;

(ii) At least once every 5 years up to the age of 40 years; and

(iii) At least once every 3 years after the age of 40 years.

(2) An applicant shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000, or 2000 Hz, or more than 50 dB at 3 000 Hz. However, an applicant with a hearing loss greater than the above may be declared fit provided that:

(i) The applicant has a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate the masking properties of flight deck noise upon speech and beacon signals; and

(ii) The applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner.

(3) Alternatively, a practical hearing test conducted in flight in the flight deck of an aircraft of the type for which the applicant's licence and ratings are valid may be used.

2.11.2.7 CLASS 2 MEDICAL CERTIFICATE

(a) CERTIFICATE ISSUE AND RENEWAL.

(1) An applicant for a PPL, an FE, or an FN licence shall undergo an initial medical examination for the issue of a Class 2 medical certificate.

(2) Except where otherwise stated in this subpart, holders of a PPL, an FE, or an FN licence shall have their Class 2 medical certificate renewed at intervals not exceeding those specified in this subpart.

(3) A Class 2 medical certificate will be issued when the applicant complies with the requirements of Part 2.

(b) PHYSICAL AND MENTAL REQUIREMENTS.

(1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioural disorder due to the use of psychoactive substances; this

includes dependence syndrome induced by alcohol or other psychoactive substances;

(iii) Schizophrenia or a schizotypal or delusional disorder;

(iv) A mood (affective) disorder;

(v) A neurotic, stress-related, or somatoform disorder;

(vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(x) A mental disorder not otherwise specified.

(3) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(4) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or nonprogressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(5) An applicant who has suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges, shall be assessed as unfit.

(6) The applicant shall not possess any abnormality of the heart, congenital or acquired, that is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(7) An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(8) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate:

(i) After the age of 40; and

(ii) In reexaminations every 2 years after the age of 50.

Note: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

(10) The systolic and diastolic blood pressures shall be within normal limits.

(11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges.

(12) There shall be no significant functional or structural abnormality of the circulatory system.

(13) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum, or pleura likely to result in incapacitating symptoms during normal or emergency operations.

(i) Radiography shall form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(14) An applicant with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(15) An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(16) The use of drugs for control of asthma shall be disqualifying except for those drugs the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(17) An applicant with active pulmonary tuberculosis shall be assessed as unfit.

(18) An applicant with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

(19) An applicant with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.

(20) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.

(21) An applicant with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression, shall be assessed as unfit.

(22) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs, shall be assessed as unfit until such time as the medical authority designated for the purpose by Curaçao and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

(23) An applicant with metabolic, nutritional, or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

(24) An applicant with insulin-treated diabetes mellitus shall be assessed as unfit.

(25) An applicant with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(26) An applicant with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and the condition is found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(27) An applicant with renal or genitourinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(28) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

(29) An applicant with sequelae of disease or surgical procedures on the kidneys or the

genitourinary tract, in particular, any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(30) An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(31) An applicant who is seropositive for HIV shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

(32) An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.

(33) For an applicant with a low-risk, uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 2.11.2.7(b)(32) of this subsection, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

(34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.

(35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(36) The applicant shall not possess any abnormality or disease of the ear or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(37) There shall be:

(i) No disturbance of vestibular function;

(ii) No significant dysfunction of the Eustachian tubes; and

(iii) No unhealed perforation of the tympanic membranes.

(38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

(39) There shall be no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(40) An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) VISUAL REQUIREMENTS.

(1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(2) Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(i) Such correcting lenses are worn during the exercise of the privileges of the licence or

rating applied for or held; and

(ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each reexamination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

(3) An applicant may use contact lenses to meet the requirement of paragraph 2.11.2.7(c)(2) of this subsection provided that:

(i) The lenses are monofocal and non-tinted;

(ii) The lenses are well tolerated; and

(iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

(4) An applicant with a large refractive error shall use contact lenses or high-index spectacle lenses.

Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

(5) An applicant whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to the initial medical certificate and every 5 years thereafter.

Note: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

(6) An applicant who has undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless the applicant is free from those sequelae which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(7) An applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: Any applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.

Note 2: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.

(8) When near correction is required in accordance with paragraph 2.11.2.7(c) of this subsection, a second pair of near-correction spectacles shall be kept available for immediate use.

(9) The applicant shall be required to have normal fields of vision.

(10) The applicant shall be required to have normal binocular function.

(11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.

(d) HEARING REQUIREMENTS.

(1) The applicant shall be tested by pure-tone audiometry:

(i) At the initial medical examination; and

(ii) At least once every 2 years after the age of 50 years.

(2) When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000, or 2 000 Hz, or more than 50 dB at 3 000 Hz, shall be assessed as unfit.

(3) The applicant shall have the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner, or be assessed as unfit.

(4) The applicant who holds a PPL with an IR shall meet the hearing requirements for a Class 1 medical certificate.

2.11.2.8 CLASS 3 MEDICAL CERTIFICATE

(a) Certificate issue and renewal.

(1) An applicant for an ATCO licence or, as of 03 November 2022, an RPL shall undergo an initial medical examination for the issue of a Class 3 medical certificate.

(2) Except where otherwise stated in this subpart, holders of ATCO licences or RPLs shall have their Class 3 medical certificate renewed at intervals not exceeding those specified in this subpart.

(3) A Class 3 medical certificate will be issued when the applicant complies with the requirements of Part 2.

(b) Physical and mental requirements.

(1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioural disorder due to the use of psychoactive substances; this includes dependence syndrome induced by alcohol or other psychoactive substances;

(iii) Schizophrenia or a schizotypal or delusional disorder;

(iv) A mood (affective) disorder;

(v) A neurotic, stress-related, or somatoform disorder;

(vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(x) A mental disorder not otherwise specified.

(3) An applicant with depression, being treated with antidepressant medication, shall be

assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(4) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or nonprogressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(5) An applicant who has suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges, shall be assessed as unfit.

(6) The applicant shall not possess any abnormality of the heart, congenital or acquired, that is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(7) An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(8) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate and in reexaminations every 2 years after the age of 50.

Note: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

(10) The systolic and diastolic blood pressures shall be within normal limits.

(11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges.

(12) There shall be no significant functional or structural abnormality of the circulatory system.

(13) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum, or pleura likely to result in incapacitating symptoms during normal or emergency operations. Radiography shall form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(14) An applicant with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(15) An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(16) The use of drugs for control of asthma shall be disqualifying except for those drugs the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(17) An applicant with active pulmonary tuberculosis shall be assessed as unfit.

(18) An applicant with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

(19) An applicant with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.

(20) An applicant with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression, shall be assessed as unfit.

(21) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the medical authority designated for the purpose by Curaçao and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

(22) An applicant with metabolic, nutritional, or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

(23) An applicant with insulin-treated diabetes mellitus shall be assessed as unfit.

(24) Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(25) An applicant with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(26) An applicant with renal or genitourinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(27) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

(28) An applicant with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(29) An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(30) An applicant who is seropositive for HIV shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

(31) An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.

(32) During the gestational period, precautions shall be taken for the timely relief of an ATCO in the event of early onset of labour or other complications.

(33) For an applicant with a low-risk, uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 2.11.2.8(b)(31) of this subsection, the fit assessment shall be limited to the period until the end of the 34th week of gestation.

(34) Following confinement or termination of pregnancy, the applicant shall not be permitted to

exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.

(35) An applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Any sequelae after lesions affecting the bones, joints, muscles, or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(36) The applicant shall not possess any abnormality or disease of the ear or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(37) There shall be no malformation or any disease of the nose, buccal cavity, or upper respiratory tract that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(38) An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) VISUAL REQUIREMENTS.

(1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each reexamination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury, or eye surgery.

(3) An applicant may use contact lenses to meet the requirement of paragraph 2.11.2.8(c)(2) of this subsection provided that:

(i) The lenses are monofocal and non-tinted;

(ii) The lenses are well tolerated; and

(iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

(4) An applicant with a large refractive error shall use contact lenses or high-index spectacle lenses.

Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

(5) An applicant whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to the initial medical certificate and every 5 years thereafter.

Note: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

(6) An applicant who has undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless the applicant is free from those sequelae which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(7) An applicant shall have the ability to read, while wearing the correcting lenses, if any, required by paragraph 2.11.2.8(c)(2) of this subsection, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: Any applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.

Note 2: An applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read radar screens, visual displays, and written or printed material, and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic or RP duties. However, it should be realised that single-vison near correction significantly reduces distant visual acuity.

Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for air traffic control or RP duties the applicant is likely to perform.

(8) When near correction is required in accordance with this paragraph 2.11.2.8(c) of this subsection, a second pair of near-correction spectacles shall be kept available for immediate use.

(9) The applicant shall be required to have normal fields of vision.

(10) The applicant shall be required to have normal binocular function.

Note: Defective stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment, where the fusional reserves are sufficient to prevent asthenopia and diplopia, may not be disqualifying.

(d) HEARING REQUIREMENTS.

(1) The applicant shall be tested by pure-tone audiometry:

(i) At the initial medical examination;

(ii) At least once every 4 years up to the age of 40 years; and

(iii) At least once every 2 years after the age of 40 years.

(2) The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000, or 2000 Hz, or more than 50 dB at 3000 Hz.

(3) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a normal air traffic control working environment or RP working environment.

(4) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 2 – IMPLEMENTING STANDARDS

JANUARY 2024

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PART 2 IMPLEMENTING STANDARDS

IS 2.2.2 LANGUAGE PROFICIENCY

(a) General.

(1) To meet the language proficiency requirements contained in 2.2.2 of Part 2, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the Authority, compliance with the holistic descriptors in IS 2.2.2(b) and with the Operational Level (Level 4) of the Language Proficiency Rating Scale as provided in IS 2.2.2(c).

(b) Holistic Descriptors. Proficient speakers shall:

(1) Communicate effectively in voice-only (telephone/radiotelephone) and face-to-face situations;

(2) Communicate on common, concrete, and work-related topics with accuracy and clarity;

(3) Use appropriate communicative strategies to exchange messages and to recognise and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;

(4) Handle successfully and with relative ease the linguistic challenges presented by a complication or an unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and

(5) Use a dialect or accent which is intelligible to the aeronautical community.

(c) Rating scale.

(1) Pre-elementary Level (Level 1)

(i) Pronunciation: Performs at a level below the Elementary Level.

(ii) Structure: Performs at a level below the Elementary Level.

(iii) Vocabulary: Performs at a level below the Elementary Level.

(iv) Fluency: Performs at a level below the Elementary Level.

(v) Comprehension: Performs at a level below the Elementary Level.

(vi) Interactions: Performs at a level below the Elementary Level.

(2) Elementary Level (Level 2).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.

(ii) Structure: Shows only limited control of a few simple memorised grammatical structures and sentence patterns.

(iii) Vocabulary: Limited vocabulary range consisting only of isolated words and memorised phrases.

(iv) Fluency: Can produce very short, isolated, memorised utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.

(v) Comprehension: Comprehension is limited to isolated, memorised phrases when they are carefully and slowly articulated.

(vi) Interactions: Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.

(3) Pre-operational Level (lLevel 3).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.

(ii) Structure: Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.

(iii) Vocabulary: Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.

(iv) Fluency: Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.

(v) Comprehension: Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.

(vi) Interactions: Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.

(4) Operational Level (Level 4).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with understanding.

(ii) Structure: Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.

(iii) Vocabulary: Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.

(iv) Fluency: Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.

(v) Comprehension: Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or may require clarification strategies.

(vi) Interactions: Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

(5) Extended Level (Level 5):

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.

(ii) Structure: Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.

(iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work -related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.

(iv) Fluency: Able to speak at length with relative ease on familiar topics, but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.

(v) Comprehension: Comprehension is accurate on common, concrete, and work-related topics and is mostly accurate when the speaker is confronted with a linguistic or situational

complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.

(vi) Interactions: Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.

(6) Expert Level (Level 6).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.

(ii) Structure: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.

(iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.

(iv) Fluency: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect (e.g., to emphasise a point). Uses appropriate discourse markers and connectors spontaneously.

(v) Comprehension: Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.

(vi) Interactions: Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.

IS 2.2.3.1 CREDIT FOR MILITARY PILOTS

(a) Credit for a licence or rating may be given to military pilots who meet the requirements of 2.2.3.1 of Part 2 and IS 2.2.3.1.

(b) Military pilots on active flying status within the past 12 months. The holder of a military pilot licence (or certificate) who has been on active flying status within the 12 months preceding the application for a licence or rating shall:

(1) Pass a knowledge test on the areas of operation listed in paragraph 2.2.3.1(b)(1) of Part 2;

(2) Present documentation showing compliance with the requirements of IS 2.2.3.1(c) for at least one aircraft category rating; and

(3) Present documentation showing that the applicant is or was, at any time during the 12 calendar months preceding the month of application, the holder of a military pilot licence (or certificate) on active flying status in an armed force of the Kingdom of the Netherlands.

(c) Aircraft category, class and type ratings. The Authority may issue to the holder of a military pilot licence (or certificate) an aircraft category, class, or type rating to a CPL if the pilot presents documentary evidence that shows satisfactory accomplishment of:

(1) A military pilot check and instrument proficiency check of the Kingdom of the Netherlands in that aircraft category, class, or type, if applicable, as PIC during the 12 calendar months preceding the month of application; and

(2) At least 10 hours of PIC time in that aircraft category, class, or type, if applicable, during the 12 calendar months preceding the month of application.

(d) Instrument rating. The holder of a military pilot licence (or certificate) may apply for an aeroplane or helicopter IR to be added to his or her CPL if the pilot has, within the 12 calendar months preceding the month of application:

(1) Passed an instrument proficiency check by an armed force of the Kingdom of the Netheralnds in the aircraft category for the IR sought; and

(2) Received authorisation from an armed force of the Kingdom of the Netherlands to conduct IFR

flights on airways in that aircraft category and class for the IR sought.

(e) Aircraft type rating. The Authority will issue an aircraft type rating only for aircraft types that the Authority has certified for civil operations.

(f) Aircraft type rating placed on an ATPL. The Authority may issue to the holder of a military pilot licence (or certificate) who holds an ATPL an aircraft type rating, provided that the pilot:

(1) Holds a category and type rating for that type of aircraft at the ATPL level; and

(2) Passed an official military pilot of the Kingdom of the Netherlands check and instrument proficiency check in that type of aircraft as PIC during the 12 calendar months preceding the month of application.

(g) Evidentiary Documents. The Authority may accept the following documents as satisfactory evidence of military pilot status:

(1) An official identification card issued to the pilot by an armed force of the Kingdom of the Netheralnds to demonstrate membership in the armed forces;

(2) An original or a copy of a certificate of discharge or release from an armed force of the Kingdom of the Netherlands;

(3) At least one of the following:

(i) An order of an armed force of the Kingdom of the Netherlands to flight status as a military pilot;

(ii) An armed force of the Kingdom of the Netherlands form or logbook showing military pilot status; or

(iii) An order showing that the applicant graduated from a military pilot school of the Kingdom of the Netherlands and received a rating as a military pilot;

(4) A certified armed force logbook or an appropriate official armed force form or summary to demonstrate flight time in military aircraft as a member of an armed force of the Kingdom of the Netherlands

(5) An official armed force of the Kingdom of the Netherlands record of a military designation as PIC; and

(6) An official record of satisfactory accomplishment of an instrument proficiency check during the 12 calendar months preceding the month of application.

IS 2.2.4.3 PROCEDURES FOR VALIDATION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority will, before making the agreement required by paragraph 2.2.4.3(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(b) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao, or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.3(a), shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(c) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures, and RT, if those areas differ between Curaçao and the other Contracting State.

(d) Application for the validation certificate shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

IS 2.2.4.4 PROCEDURES FOR CONVERSION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE

LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.

(b) The Authority will, before making the agreement required by paragraph 2.2.4.4(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(c) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.4(b), shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(1) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures, and RT, if those areas differ between Curaçao and the other Contracting State.

(d) Renewal and reissue of converted licences and ratings:

(1) When examiners are available in Curaçao to perform proficiency checks for the renewal of rating(s), or skill tests for the reissue of the licence or rating(s), these checks/tests will be performed by the authorised examiners of Curaçao.

(2) When examiners are not available in Curaçao to perform proficiency checks for the renewal of the rating(s), or skill tests for the reissue of the licence or rating(s), the availability of examiners for these checks/tests from the other Contracting State can be arranged in the agreement required by paragraph 2.2.4.4(a)(3) of Part 2.

(e) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

(f) The conversion of medical certificates, and/or reliance on medical examinations conducted in the other Contracting State, may also be addressed in the government-to-government agreement between the States.

IS 2.2.4.9 PROCEDURES FOR VALIDATION OF AMT LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority will, before making the agreement required by paragraph 2.2.4.9(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(b) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao, or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.9(a) shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(c) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. The knowledge test may also include Curaçao airworthiness requirements governing certification and continuing airworthiness and AMOs and procedures, if those regulations differ between Curaçao and the other Contracting State.

(d) Application for the validation certificate shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

IS 2.2.4.10 PROCEDURES FOR CONVERSION OF AMT LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.

(b) The Authority will, before making the agreement required by 2.2.4.10(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(c) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao, or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.10(b), shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(1) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. The knowledge test may also include Curaçao airworthiness requirements governing certification and continuing airworthiness and AMOs and procedures, if those regulations differ between Curaçao and the other Contracting State.

(d) Renewal and reissue of converted licences and ratings:

(1) When examiners are available in Curaçao to perform proficiency checks for the renewal of rating(s), or skill tests for the reissue of the licence or rating(s), these tests/checks will be performed by the authorised examiners of Curaçao;

(2) When examiners are not available in Curaçao to perform proficiency checks for the renewal of the rating(s), or skill tests for the reissue of the licence or rating(s), the availability of examiners for these checks/tests from the other Contracting State can be arranged in the agreement required by 2.2.4.10(a)(3) of Part 2.

(e) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

IS 2.2.4.11 AUTOMATIC VALIDATION OF LICENCES ISSUED BY CONTRACTING STATES WITH A FORMAL AGREEMENT UNDER COMMON LICENSING REGULATIONS

(a) The attachment to automatically validated licences issued by the Director General Civil Aviation shall be as follows:

For Use Only by the CCAA	1. Curaçao Civil Aviation Authority **ATTACHMENT [XXX] TO AUTOMATICALLY VALIDATED LICENCES**	For Use Only by the CCAA
2. The licence is automatically validated by all the States listed in line 3 under an agreement registered with ICAO. The ICAO Registration Number is: [_____].		
3. The Contracting States that automatically validate this licence are: [ ]		
4. [Signature or stamp]		
5. Date of issue: [dd/mm/yyyy]		
6. If issued by an RSOO: The [Regional Safety Oversight Organisation] Contracting States are: [list of State members of the RSOO]		

CAA form dated 12/2021

(b) The attachment number, to be filled in the [XXX] space, shall be the identification number of the Issuing Authority.

IS 2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE

(a) The following details shall appear on the licence and the numbering scheme shall be in Roman numerals:

(i) Name of Curaçao (in bold type);

(ii) Title of licence (in very bold type);

(ii) Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;

(iii) Name of licence holder in full (in Roman alphabet also if script of national language is other than Roman);

(iv) Name of holder in full;

(iv_a) Date of birth

(v) Address of licence holder;

(vi) Nationality of licence holder;

(vii) Signature of licence holder;

(viii) Authority and, where necessary, conditions under which the licence is issued;

(ix) Certification concerning validity and authorisation for holder to exercise privileges appropriate to the licence;

(x) Signature of the officer issuing the licence and the date of such issue;

(xi) Seal or stamp of the authority issuing the licence;

(xii) Ratings (e.g., category, class, type of aircraft, airframe, aerodrome control);

(xiii) Remarks (i.e., special endorsements relating to limitations, endorsements for privileges, including an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention); and

(xiv) Any other details desired by the authority issuing the licence.

(b) The privileges and ratings shall be clearly identified on the licence in items (ix) and (xii).

Note: Item (vi), Nationality, is presumed to be citizenship of the licence holder.

IS 2.3.1 PILOT LICENCES, CATEGORIES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, INSTRUCTORS FOR PILOT LICENSING, AND DESIGNATED PILOT EXAMINERS

IS 2.3.1.7 RECORDING OF FLIGHT TIME

(a) The details in the records of flights flown as pilot shall contain the items listed in IS 2.3.1.7(b) and (c) below.

(b) For the purpose of meeting the requirements of 2.3.1.6 of Part 2, each person shall enter the following information for each flight or lesson logged:

(1) Personal details:

(i) Name of the licence holder

(ii) Address of the licence holder

(2) For each flight:

(i) Name of the PIC

(ii) Date of the flight

(iii) Place and time of departure and arrival

(iv) Type of aircraft and registration

(3) For each session in an FSTD:

(i) Type and qualification number of the FSTD

(ii) FSTD instruction

(iii) Date

(iv) Total time of session

(4) Pilot function:

(i) Solo

(ii) PIC

(iii) CP

(iv) Dual

(v) FI

(c) Logging of flight time.

(1) Logging of solo flight time:

(i) A student pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

(2) Logging of PIC flight time:

(i) The applicant or the holder of a pilot licence may log as PIC time all that flight time during which that person is:

(A) The sole manipulator of the controls of an aircraft for which the pilot is rated; and

(B) Acting as PIC of an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(ii) An authorised instructor may log as PIC time all the flight time while acting as an authorised instructor.

(iii) A student pilot may log as PIC time all solo flight time and flight time as student PIC, provided that such time is countersigned by the instructor.

(3) Logging of CP time:

(i) A person may log CP time only when occupying a pilot seat as CP in an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(4) Logging of instrument flight time:

(i) A person may log instrument flight time only for that flight when the person operates the aircraft solely by reference to instruments under actual or simulated instrument flight conditions.

(5) Logging instruction time:

(i) A person may log instruction time when that person receives training from an authorised instructor in an aircraft or an FSTD.

(ii) The instruction time shall be logged in a record (e.g., logbook) and shall be endorsed by the authorised instructor

IS 2.3.2 CATEGORY, CLASS, AND TYPE RATINGS, CATEGORY II/III AUTHORISATIONS, AND ENDORSEMENTS

IS 2.3.2.5 CATEGORY II AND III AUTHORISATION

(a) The Authority will issue a CAT II or CAT III pilot authorisation by letter, as part of an applicant's IR or ATPL.

(b) Upon original issue, the authorisation will contain the following limitations:

(1) For CAT II operations, 1600 ft RVR and 150 ft DH; and

(2) For CAT III operations, as specified in the authorisation document.

(c) To remove the limitations on a CAT II or CAT III pilot authorisation:

(1) A CAT II limitation holder may remove the limitation by showing that, since the beginning of the sixth preceding month, the holder has made three CAT II ILS approaches with a 150-foot DH to a landing under actual or simulated instrument conditions; or

(2) A CAT III limitation holder may remove the limitation by showing experience as specified in the

authorisation.

(d) An authorisation holder or an applicant for an authorisation may use a flight simulator or flight training device, if it is approved by the Authority for such use, to meet the experience requirement, flight instruction requirement, or for the practical test required by Part 2 Subsection 2.3.2.5 for a CAT II or a CAT III pilot authorisation, as applicable.

(e) Category II: skill test requirements.

(1) An applicant for the following authorisations shall pass a skill test:

(i) Issuance or renewal of a CAT II pilot authorisation

(ii) The addition of another type aircraft to a CAT II pilot authorisation

(2) To be eligible for the skill test for an authorisation under 2.3.2.5 of Part 2 an applicant shall:

(i) Meet the requirements of 2.3.2.5 of Part 2; and

(ii) If the applicant has not passed a skill test for this authorisation during the 12 calendar months preceding the month of the test:

(A) Meet the requirements of 8.4.1.10 of these regulations; and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall accomplish the approaches specified in IS 2.3.2.5(e)(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the minimum DH for the ILS approach in the type aircraft in which the practical test is to be conducted, except that the approaches need not be conducted to the DH authorised for CAT II operations;

(iii) To the DH authorised for CAT II operations only if conducted in an approved flight simulator or an approved flight training device; and

(iv) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted, or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(4) The flight time acquired in meeting the requirements of IS 2.3.2.5(e)(2)(ii)(B) may be used to meet the requirements of IS 2.3.2.5(e)(2)(ii)(A).

(f) Category II: skill test procedures. The skill test consists of an oral increment and a flight increment.

(1) Oral increment. In the oral increment of the practical test an applicant shall demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Recognition of the DH;

(iii) Missed approach procedures and techniques using computed or fixed-attitude guidance displays;

(iv) Use and limitations of RVR;

(v) Use of visual clues, their availability or limitations, and the altitude at which they are normally discernible at reduced RVR readings;

(vi) Procedures and techniques related to transition from nonvisual to visual flight during a final approach under reduced RVR;

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system, auto approach coupler (including split-axis type, if equipped), auto throttle system (if equipped), and other required CAT II

equipment;

(x) Assigned duties of the CP during CAT II approaches, unless the aircraft for which authorisation is sought does not require a CP; and

(xi) Instrument and equipment failure warning systems.

(2) Flight increment. The following requirements apply to the flight increment of the practical test:

(i) The flight increment shall be conducted in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(ii) The flight increment shall consist of at least two ILS approaches to 100 ft AGL, including at least one landing and one missed approach.

(iii) All approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands.

(iv) If a multi-engine aeroplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker.

(v) If an approved multi-engine FSTD is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.

(vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in coordination with a CP who holds a type rating in the aircraft in which the authorisation is sought.

(vii) An inspector or an evaluator may conduct oral questioning at any time during a practical test.

(g) Category III: Skill test requirements

(1) The Authority will require that an applicant pass a skill test for:

(i) Issuance or renewal of a CAT III pilot authorisation

(ii) The addition of another type of aircraft to a CAT III pilot authorisation

(2) To be eligible for the skill test, an applicant shall:

(i) Meet the requirements of 2.3.2.5 of Part 2; and

(ii) If the applicant has not passed a practical test for this authorisation during the 12 calendar months preceding the month of the test:

(A) Meet the requirements of 8.4.1.10, 8.10.1.20, and 8.10.1.32 of these regulations; and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall conduct the approaches specified in IS 2.3.2.5(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the alert height or DH for the ILS approach in the type aircraft in which the practical test is to be conducted;

(iii) Not necessarily to the DH authorised for CAT III operations;

(iv) To the alert height or DH, as applicable, authorised for CAT III operations only if conducted in an approved flight simulator or approved flight training device; and

(v) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted, or in an approved flight simulator that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought; and

(B) is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(4) Knowledge requirements. An applicant shall demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Determination and recognition of the alert height or DH, as applicable, including use of a radar altimeter;

(iii) Recognition of and proper reaction to significant failures encountered prior to and after reaching the alert height or DH, as applicable;

(iv) Missed approach procedures and techniques using computed or fixed-attitude guidance displays and expected height loss as they relate to manual go-around or automatic go-around, and initiation altitude, as applicable;

(v) Use and limitations of RVR, including determination of controlling RVR and required transmissometers;

(vi) Use, availability, or limitations of visual cues and the altitude at which they are normally discernible at reduced RVR readings, including:

(A) Unexpected deterioration of conditions to less than minimum RVR during approach, flare, and rollout;

(B) Demonstration of expected visual references with weather at minimum conditions;

(C) The expected sequence of visual cues during an approach in which visibility is at or above landing minima; and

(D) Procedures and techniques for making a transition from instrument reference flight to visual flight during a final approach under reduced RVR;

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other CAT III equipment;

(x) Assigned duties of the CP during CAT III operations, unless the aircraft for which authorisation is sought does not require a CP;

(xi) Recognition of the limits of acceptable aircraft position and flight path tracking during approach, flare, and, if applicable, rollout; and

(xii) Recognition of, and reaction to, airborne or ground system faults or abnormalities, particularly after passing alert height or decision height, as applicable.

(5) Flight skill requirements.

(i) An applicant may conduct the practical test in an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought, or in an approved flight simulator that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(ii) The practical test shall consist of at least two ILS approaches to 100 ft AGL, including one landing and one missed approach initiated from a very low altitude that may result in a touchdown during the go-around manoeuvre;

(iii) The applicant shall perform all approaches during the practical test with the approved automatic landing system or an equivalent landing system approved by the Authority;

(iv) If a multi-engine aircraft with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the practical test shall include the performance of one missed approach with the most critical engine, if applicable, set at idle

or zero thrust before reaching the middle or outer marker;

(v) If an approved multi-engine flight simulator or approved multi-engine flight training device is used, the applicant shall execute a missed approach with an engine, which shall be the most critical engine, if applicable, failed;

(vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in coordination with a check pilot who holds a type rating in the aircraft in which the authorisation is sought; and

(vii) Subject to the limitations of this paragraph, for CAT IIIB operations predicated on the use of a fail passive rollout control system, the applicant shall execute at least one manual rollout using visual reference or a combination of visual and instrument references. The applicant shall initiate this manoeuvre by a fail passive disconnect of the rollout control system:

(A) After main gear touchdown;

(B) Prior to nose gear touchdown;

(C) In conditions representative of the most adverse lateral touchdown displacement allowing a safe landing on the runway; and

(D) In weather conditions anticipated in CAT IIIB operations.

(6) An inspector or an evaluator may conduct oral questioning at any time during the practical test.

IS 2.3.2.6 PBN PILOT AUTHORISATION

(a) An authorisation holder or an applicant for an authorisation may use a flight simulator or flight training device, if it is approved by the Authority for such use, to meet the experience requirement of paragraph 2.3.2.6(c) of Part 2, or for the practical test required by Part 2 for a PBN pilot authorisation, as applicable.

(b) PBN skill test requirements:

(1) An applicant for the PBN pilot authorisation shall pass a skill test:

(i) Issuance or re-issuance of a PBN pilot authorisation.

(ii) The addition of another type aircraft to a PBN pilot authorisation.

(2) To be eligible for the skill test for an authorisation under 2.3.2.6 of Part 2 an applicant shall:

(i) Meet the requirements of 2.3.2.6 of Part 2; and

(ii) If the applicant has not passed a skill test for this authorisation during the 12 calendar months preceding the month of the test:

(A) Meet the requirements of 8.4.1.10 of these regulations; and

(B) Have performed at least six IFR approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall accomplish the approaches specified in IS 2.3.2.6(e)(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the minimum DH for the ILS approach in the type aircraft in which the practical test is to be conducted; and

(iii) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted, or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(4) The flight time acquired in meeting the requirements of IS 2.3.2.5(e)(2)(ii)(B) may be used to meet the requirements of IS 2.3.2.5(e)(2)(ii)(A).

(c) PBN skill test procedures. The skill test consists of an oral increment and a flight increment.

(1) Oral increment. In the oral increment of the practical test an applicant shall demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Recognition of the DH;

(iii) Missed approach procedures and techniques using computed or fixed-attitude guidance displays;

(iv) Use and limitations of the GNSS system;

(v) Effects of vertical and horizontal windshear;

(vi) Characteristics and limitations of the flight director system, auto approach coupler (including split-axis type, if equipped), auto throttle system (if equipped), and other required PBN equipment;

(vii) Assigned duties of the CP during PBN approaches, unless the aircraft for which authorisation is sought does not require a CP; and

(viii) Instrument and equipment failure warning systems.

(2) Flight increment. The following requirements apply to the flight increment of the practical test:

(i) The flight increment shall be conducted in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(iii) The flight increment shall consist of at least two PBN approaches, including at least one landing and one missed approach.

(iii) All approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands.

(iv) If a multi-engine aeroplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before commencement of the PBN approach.

(v) If an approved multi-engine FSTD is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.

(vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in coordination with a CP who holds a type rating in the aircraft in which the authorisation is sought.

(3) An inspector or an evaluator may conduct oral questioning at any time during a practical test.

(4) The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aircraft used:

Height	
Generally	± 100 feet
Starting a go-around at decision height/altitude	+ 50 feet/– 0 feet

Minimum descent height/MAP/altitude	+ 50 feet/– 0 feet
Tracking	
On radio aids	± 5°
For angular deviations	Half scale deflection, azimuth and glide path (e.g. LPV, ILS, MLS, GLS)
2D (LNAV) and 3D (LNAV/VNAV) "linear" lateral deviations	cross-track error/deviation shall normally be limited to ± $\frac{1}{2}$ the RNP value associated with the procedure. Brief deviations from this standard up to a maximum of 1 time the RNP value are allowable.
3D linear vertical deviations (e.g. RNP APCH (LNAV/VNAV) using BaroVNAV)	not more than – 75 feet below the vertical profile at any time, and not more than + 75 feet above the vertical profile at or below 1 000 feet above aerodrome level.
Heading	
all engines operating	± 5°
with simulated engine failure	± 10°
Speed	
all engines operating	± 5 knots
with simulated engine failure	+ 10 knots/– 5 knots,

(5) Contents of the skill test:

AEROPLANES

SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply in all sections	
a	Use of flight manual (or equivalent) especially a/c performance calculation, mass and balance
b	Use of Air Traffic Services document, weather document
c	Preparation of ATC flight plan, IFR flight plan/log
d	Identification of the required navaids for departure, arrival and approach procedures
e	Pre-flight inspection
f	Weather Minima
g	Taxiing
h	PBN departure (if applicable): — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the departure chart.
i	Pre-take-off briefing, Take-off
j	Transition to instrument flight
k	Instrument departure procedures, including PBN departures, and altimeter setting
l	ATC liaison — compliance, R/T procedures
SECTION 2 — GENERAL HANDLING	
a	Control of the aeroplane by reference solely to instruments, including: level flight at various speeds, trim
b	Climbing and descending turns with sustained Rate 1 turn
c	Recoveries from unusual attitudes, including sustained 45° bank turns and steep descending turns

d	Recovery from approach to stall in level flight, climbing/descending turns and in landing configuration — only applicable to aeroplanes
e	Limited panel: stabilised climb or descent, level turns at Rate 1 onto given headings, recovery from unusual attitudes — only applicable to aeroplanes
SECTION 3 — EN-ROUTE IFR PROCEDURES	
a	Tracking, including interception, e.g. NDB, VOR, or track between waypoints
b	Use of navigation system and radio aids
c	Level flight, control of heading, altitude and airspeed, power setting, trim technique
d	Altimeter settings
e	Timing and revision of ETAs (en-route hold, if required)
f	Monitoring of flight progress, flight log, fuel usage, systems' management
g	Ice protection procedures, simulated if necessary
h	ATC liaison — compliance, R/T procedures
SECTION 3a — ARRIVAL PROCEDURES	
a	Setting and checking of navigational aids, if applicable
b	Arrival procedures, altimeter checks
c	Altitude and speed constraints, if applicable
d	PBN arrival (if applicable): — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the arrival chart.
SECTION 4 — 3D OPERATIONS	
a	Setting and checking of navigational aids

	Check Vertical Path angle For RNP APCH: — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the approach chart.
b	Approach and landing briefing, including descent/approach/landing checks, including identification of facilities
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing
f	Altitude, speed heading control (stabilised approach)
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 5 — 2D OPERATIONS	
a	Setting and checking of navigational aids For RNP APCH: — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the approach chart.
b	Approach and landing briefing, including descent/approach/landing checks, including identification of facilities
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing

f	Altitude/Distance to MAPT, speed, heading control (stabilised approach), Stop Down Fixes (SDF(s)), if applicable
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 6 — FLIGHT WITH ONE ENGINE INOPERATIVE (multi-engine aeroplanes only)	
a	Simulated engine failure after take-off or on go-around
b	Approach, go-around and procedural missed approach with one engine inoperative
c	Approach and landing with one engine inoperative
d	ATC liaison — compliance, R/T procedures

HELICOPTERS	
SECTION 1 — DEPARTURE	
Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply in all sections	
a	Use of flight manual (or equivalent) especially aircraft performance calculation; mass and balance
b	Use of Air Traffic Services document, weather document
c	Preparation of ATC flight plan, IFR flight plan/log
d	Identification of the required navaids for departure, arrival and approach procedures
e	Pre-flight inspection
f	Weather minima
g	Taxiing/Air taxi in compliance with ATC or instructions of instructor

h	PBN departure (if applicable): — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the departure chart.
i	Pre-take-off briefing, procedures and checks
j	Transition to instrument flight
k	Instrument departure procedures, including PBN procedures
SECTION 2 — GENERAL HANDLING	
a	Control of the helicopter by reference solely to instruments, including:
b	Climbing and descending turns with sustained Rate 1 turn
c	Recoveries from unusual attitudes, including sustained 30° bank turns and steep descending turns
SECTION 3 — EN-ROUTE IFR PROCEDURES	
a	Tracking, including interception, e.g. NDB, VOR, RNAV
b	Use of radio aids
c	Level flight, control of heading, altitude and airspeed, power setting
d	Altimeter settings
e	Timing and revision of ETAs
f	Monitoring of flight progress, flight log, fuel usage, systems management
g	Ice protection procedures, simulated if necessary and if applicable
h	ATC liaison — compliance, R/T procedures
SECTION 3a — ARRIVAL PROCEDURES	
a	Setting and checking of navigational aids, if applicable

b	Arrival procedures, altimeter checks
c	Altitude and speed constraints, if applicable
d	PBN arrival (if applicable) — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the arrival chart.
SECTION 4 — 3D OPERATIONS	
a	Setting and checking of navigational aids Check Vertical Path Angle For RNP APCH: (a) Check that the correct procedure has been loaded in the navigation system; and (b) Cross-check between the navigation system display and the approach chart.
b	Approach and landing briefing, including descent/approach/landing checks
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing
f	Altitude, speed, heading control (stabilised approach)
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 5 — 2D OPERATIONS	
a	Setting and checking of navigational aids For RNP APCH: — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the approach chart.

b	Approach and landing briefing, including descent/approach/landing checks and identification of facilities
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing
f	Altitude, speed, heading control (stabilised approach)
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 6 — ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with sections 1 through 5. The test shall have regard to control of the helicopter, identification of the failed engine, immediate actions (touch drills), follow-up actions and checks and flying accuracy, in the following situations:	
a	Simulated engine failure after take-off and on/during approach (at a safe altitude unless carried out in an FFS or FNPT II/III, FTD 2,3)
b	Failure of stability augmentation devices/hydraulic system (if applicable)
c	Limited panel
d	Autorotation and recovery to a pre-set altitude
e	3D operations manually without flight director 3D operations manually with flight director

IS 2.3.3 STUDENT PILOTS

A student pilot who is receiving training for solo flight shall receive and log flight training for the following manoeuvres and procedures, as applicable for each category and class rating as specified in the applicable subsection to this IS.

Note: When (SE) is indicated, the item is only for single engine aircraft. When (ME) is indicated, the item is only for multi-engine aircraft

IS 2.3.3.2 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AEROPLANE CATEGORY

A student pilot who is receiving training for solo flight in an aeroplane shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(3) Taxiing, or surface operations, including run ups;
(4) Take-offs and landings, including normal and crosswind;
(5) Straight and level flight and turns in both directions;
(6) Climbs and climbing turns;
(7) Aerodrome traffic patterns, including entry and departure procedures;
(8) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(9) Descents, with and without turns, using high and low drag configurations;
(10) Flight at various airspeeds from cruise to slow flight;
(11) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
(12) Emergency procedures and equipment malfunctions;
(13) Ground reference manoeuvres;
(14) Approaches to a landing area with simulated engine malfunctions;
(15) Slips to a landing (SE only); and
(16) Go-arounds.

IS 2.3.3.3 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – HELICOPTER CATEGORY

A student pilot who is receiving training for solo flight in a helicopter shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing, or surface operations, including run ups;
(3) Take-offs and landings, including normal and crosswind;
(4) Straight and level flight and turns in both directions;
(5) Climbs and climbing turns;
(6) Aerodrome traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents, with and without turns, using high and low drag configurations;
(9) Flight at various airspeeds;
(10) Emergency procedures and equipment malfunctions;
(11) Ground reference manoeuvres;
(12) Approaches to the landing area;
(13) Hovering and hovering turns;
(14) Go-arounds;
(15) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to a hover;
(16) Rapid decelerations; and

(17) Simulated one-engine-inoperative approaches and landings (ME only).

IS 2.3.3.4 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – POWERED-LIFT CATEGORY

A student pilot who is receiving training for solo flight in a powered-lift shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing, or surface operations, including run ups;
(3) Take-offs and landings, including normal and crosswind;
(4) Straight and level flight and turns in both directions;
(5) Climbs and climbing turns;
(6) Aerodrome traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds from cruise to slow flight;
(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
(11) Emergency procedures and equipment malfunctions;
(12) Ground reference manoeuvres;
(13) Approaches to a landing with simulated engine malfunctions;
(14) Go-arounds;
(15) Approaches to the landing area;
(16) Hovering and hovering turns; and
(17) Simulated one-engine-inoperative approaches and landings (ME only).

IS 2.3.3.5 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AIRSHIP CATEGORY

A student pilot who is receiving training for solo flight in an airship shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing or surface operations, including run ups;
(3) Take-offs and landings, including normal and crosswind;
(4) Straight and level flight and turns in both directions;
(5) Climbs and climbing turns;
(6) Aerodrome traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds from cruise to slow flight;
(10) Emergency procedures and equipment malfunctions;
(11) Ground reference manoeuvres;
(12) Rigging, ballasting, and controlling pressure in the ballonets, and superheating; and
(13) Landings with positive and with negative static trim.

IS 2.3.3.6 RESERVED.

IS 2.3.3.7 RESERVED.

IS 2.3.4 RESTRICTED PRIVATE PILOT LICENCE

IS 2.3.4.2 RPPL SKILL TEST—AEROPLANE CATEGORY

(a) The skill test for the single-engine and multi-engine private pilot licence –aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Airworthiness requirements;

(iii) Weather information;

(iv) National airspace system;

(v) Performance and limitations;

(vi) Operation of system;

(vii) Principles of flight;

(viii) Water and Seaplane Characteristics (S);

(ix) Seaplane bases, maritime rules and aids to marine navigation (S);

(x) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting;

(iv) Taxiing (L);

(v) Taxiing and Sailing (S);

(vi) Before takeoff check.

(3) Aerodrome and seaplane operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach and landing;

(iii) Soft-field takeoff and climb (SE) (L);

(iv) Soft-field approach and landing (SE) (L);

(v) Short-field (Confined area (S)) takeoff and maximum performance climb;

(vi) Short-field approach (Confined area (S)) and landing;

(vii) Glassy Water takeoff and climb (S);

(viii) Glassy water approach and landing (S);

(ix) Rough water takeoff and climb (S);

(x) Rough water approach and landing (S);

(xi) Forward slip to a landing (SE);

(xii) Go-around/rejected landing.

(5) Performance manoeuvre, including the applicant's knowledge and performance of the following task:

(i) Steep turns.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Rectangular course;

(ii) S-turns;

(iii) Turns around a point.

(7) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-off stalls;

(iii) Power-on stalls;

(iv) Spin awareness.

(8) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight;

(vi) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks:

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing;

(ii) Emergency descent (ME);

(iii) Engine failure during takeoff before minimum controllable airspeed (VMC) (simulated) (ME);

(iv) Engine failure after lift-off (simulated) (ME);

(v) Approach and landing with an inoperative engine (simulated) (ME);

(vi) Systems and equipment malfunctions;

(vii) Emergency equipment and survival gear.

(10) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring with one engine inoperative;

(ii) VMC demonstration;

(iii) Engine failure during flight (by reference to instruments);

(iv) Instrument approach – one engine inoperative (by reference to instruments).

(11) Night operation, including the applicant's knowledge and performance of the following task:

(i) Night preparation.

(12) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing, parking and securing;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Ramping/Beaching (S).

IS 2.3.4.3 RPPL SKILL TEST—HELICOPTER CATEGORY

(a) The skill test for the private pilot licence -helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) National airspace system;

(iv) Performance and limitations;

(v) Operation of system;

(vi) Minimum equipment list;

(vii) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting and rotor engagement;

(iv) Before takeoff check.

(3) Aerodrome and heliport operations, including the applicant's knowledge and performance of the following tasks;

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and heliport markings and lighting.

(4) Hovering manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Vertical takeoff and landing;

(ii) Slope operations;

(iii) Surface taxi;

(iv) Hover taxi;

(v) Air taxi.

(5) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach;

(iii) Maximum performance takeoff and climb.

(iv) Steep approach;

(v) Rolling takeoff;

(vi) Shallow approach and running/roll-on landing;

(vii) Go-around.

(6) Performance manoeuvre, including the applicant's knowledge and performance of the following tasks:

(i) Rapid deceleration;

(ii) Straight in autorotation.

(7) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Systems and equipment malfunctions;

(iv) Settling-with-power;

(v) Low rotor RPM recovery;

(vi) Dynamic rollover;
(vii) Ground resonance;
(viii) Low G conditions;
(ix) Emergency equipment and survival gear.

(8) Night operation, including the applicant's knowledge and performance of the following tasks:
(i) Physiological aspects of night flying;
(ii) Lighting and equipment for night flying.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
(i) After landing and securing.

IS 2.3.4.4 RPPL SKILL TEST—POWERED-LIFT CATEGORY

RESERVED

IS 2.3.4.5 RPPL SKILL TEST—AIRSHIP CATEGORY

(a) The skill test for the private pilot licence-airship category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
(i) Certificates and documents;
(ii) Weather information;
(iii) National airspace system;
(iv) Performance and limitations;
(v) Operation of systems;
(vi) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Preflight inspection;
(ii) Cockpit management;
(iii) Engine starting;
(iv) Unmasting and positioning for takeoff;
(v) Ground handling;
(vi) Before takeoff check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
(i) Radio communications and ATC light signals;
(ii) Traffic patterns;
(iii) Airport and runway markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
(i) Ground weigh-off;
(ii) Up-ship takeoff;
(iii) Wheel takeoff;
(iv) Approach and landing;
(v) Go-around.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
  (i) Straight-and-level flight;
  (ii) Ascents and descents;
  (iii) Level turns;
  (iv) In-flight weigh-off;
  (v) Manual pressure control;
  (vi) Static and dynamic trim.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:
  (i) Rectangular course;
  (ii) Turns around a point.

(7) Emergency operations, including the applicant's knowledge and performance of the following tasks:
  (i) Engine fire during flight;
  (ii) Envelope emergencies;
  (iii) Free ballooning;
  (iv) Ditching and emergency landing;
  (v) Systems and equipment malfunctions.

(8) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) Masting;
  (ii) Post-masting.

IS 2.3.4.6 RESERVED

IS 2.3.4.7 RESERVED

IS 2.3.5 PRIVATE PILOT LICENCE

IS 2.3.5.2 PPL SKILL TEST — AEROPLANE CATEGORY

The skill test for the single-engine and multi-engine private pilot licence –aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
  (i) Licences and documents;
  (ii) Airworthiness requirements;
  (iii) Weather information;
  (iv) Cross-country flight planning;
  (v) National airspace system;
  (vi) Performance and limitations;
  (vii) Operation of system;
  (viii) Principles of flight;
  (ix) Water and Seaplane Characteristics (S);

(x) Seaplane bases, maritime rules and aids to marine navigation (S);

(xi) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting;

(iv) Taxiing (L);

(v) Taxiing and Sailing (S);

(vi) Before takeoff check.

(3) Aerodrome and seaplane operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach and landing;

(iii) Soft-field takeoff and climb (SE) (L);

(iv) Soft-field approach and landing (SE) (L);

(v) Short-field (Confined area (S)) takeoff and maximum performance climb;

(vi) Short-field approach (Confined area (S)) and landing;

(vii) Glassy Water takeoff and climb (S);

(viii) Glassy water approach and landing (S);

(ix) Rough water takeoff and climb (S);

(x) Rough water approach and landing (S);

(xi) Forward slip to a landing (SE);

(xii) Go-around/rejected landing.

(5) Performance manoeuvre, including the applicant's knowledge and performance of the following task:

(i) Steep turns.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Rectangular course;

(ii) S-turns;

(iii) Turns around a point.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:

(i) Pilotage and dead reckoning;

(ii) Navigation systems and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-off stalls;

(iii) Power-on stalls;

(iv) Spin awareness.

(9) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight;

(vi) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks:

(10) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing;

(ii) Emergency descent (ME);

(iii) Engine failure during takeoff before minimum controllable airspeed (VMC) (simulated) (ME);

(iv) Engine failure after lift-off (simulated) (ME);

(v) Approach and landing with an inoperative engine (simulated) (ME);

(vi) Systems and equipment malfunctions;

(vii) Emergency equipment and survival gear.

(11) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring with one engine inoperative;

(ii) VMC demonstration;

(iii) Engine failure during flight (by reference to instruments);

(iv) Instrument approach – one engine inoperative (by reference to instruments).

(12) Night operation, including the applicant's knowledge and performance of the following task:

(i) Night preparation.

(13) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing, parking and securing;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Ramping/Beaching (S).

IS 2.3.5.3 PPL SKILL TEST—HELICOPTER CATEGORY

The skill test for the private pilot licence -helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) National airspace system;

(v) Performance and limitations;

(vi) Operation of system;

(vii) Minimum equipment list;

(viii) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting and rotor engagement;

(iv) Before takeoff check.

(3) Aerodrome and heliport operations, including the applicant's knowledge and performance of the following tasks;

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and heliport markings and lighting.

(4) Hovering manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Vertical takeoff and landing;

(ii) Slope operations;

(iii) Surface taxi;

(iv) Hover taxi;

(v) Air taxi.

(5) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach;

(iii) Maximum performance takeoff and climb.

(iv) Steep approach;

(v) Rolling takeoff;

(vi) Shallow approach and running/roll-on landing;

(vii) Go-around.

(6) Performance manoeuvre, including the applicant's knowledge and performance of the following tasks:

(i) Rapid deceleration;

(ii) Straight in autorotation.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:

(i) Pilotage and dead reckoning;

(ii) Radio navigation and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Systems and equipment malfunctions;

(iv) Settling-with-power;

(v) Low rotor RPM recovery;

(vi) Dynamic rollover;

(vii) Ground resonance;

(viii) Low G conditions;

(ix) Emergency equipment and survival gear.

(9) Night operation, including the applicant's knowledge and performance of the following tasks:

(i) Physiological aspects of night flying;

(ii) Lighting and equipment for night flying.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing and securing.

IS 2.3.5.4 PPL SKILL TEST—POWERED-LIFT CATEGORY

Reserved.

IS 2.3.5.5 PPL SKILL TEST—AIRSHIP CATEGORY

The skill test for the private pilot licence-airship category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
- (i) Certificates and documents;
- (ii) Weather information;
- (iii) Cross-country flight planning;
- (iv) National airspace system;
- (v) Performance and limitations;
- (vi) Operation of systems;
- (vii) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
- (i) Preflight inspection;
- (ii) Cockpit management;
- (iii) Engine starting;
- (iv) Unmasting and positioning for takeoff;
- (v) Ground handling;
- (vi) Before takeoff check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
- (i) Radio communications and ATC light signals;
- (ii) Traffic patterns;
- (iii) Airport and runway markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
- (i) Ground weigh-off;
- (ii) Up-ship takeoff;
- (iii) Wheel takeoff;
- (iv) Approach and landing;
- (v) Go-around.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
- (i) Straight-and-level flight;
- (ii) Ascents and descents;
- (iii) Level turns;
- (iv) In-flight weigh-off;
- (v) Manual pressure control;
- (vi) Static and dynamic trim.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:
- (i) Rectangular course;
- (ii) Turns around a point.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:
  (i) Pilotage and dead reckoning;
  (ii) Navigation systems and radar services;
  (iii) Diversion;
  (iv) Lost procedures.
(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:
  (i) Engine fire during flight;
  (ii) Envelope emergencies;
  (iii) Free ballooning;
  (iv) Ditching and emergency landing;
  (v) Systems and equipment malfunctions.
(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) Masting;
  (ii) Post-masting.

IS 2.3.5.6 RESERVED

IS 2.3.5.7 RESERVED

IS 2.3.6 COMMERCIAL PILOT LICENCE

IS 2.3.6.2 CPL SKILL TEST—AEROPLANE CATEGORY

The skill test for the single-engine and multi-engine commercial pilot licence - aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine; when (ME) is indicated, the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
  (i) Licences and documents;
  (ii) Airworthiness requirements;
  (iii) Weather information;
  (iv) Cross-country flight planning;
  (v) National airspace system;
  (vi) Performance and limitations;
  (vii) Operation of system;
  (viii) Principles of flight (ME);
  (ix) Water and Seaplane characteristics (S);
  (x) Seaplane bases, maritime rules and aids to marine navigation (S);
  (xi) Aeromedical factors.
(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) Preflight inspection;
  (ii) Cockpit management;

(iii) Engine Starting;

(iv) Taxiing (L);

(v) Taxiing and sailing (S);

(vi) Before takeoff check.

(3) Aerodrome and seaplane base operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome/Seaplane base, runway and taxiway signs, markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach and landing;

(iii) Soft-field takeoff and climb (SE);

(iv) Soft-field approach and landing (SE);

(v) Short-field (Confined area (S)) takeoff and maximum performance climb;

(vi) Short-field (Confined area (S)) approach and landing;

(vii) Glassy water takeoff and climb (S);

(viii) Glassy water approach and landing (S);

(ix) Rough water takeoff and climb (S);

(x) Rough water approach and landing (S);

(xi) Power-off 180 degrees accuracy approach and landing (SE);

(xii) Go-around/rejected landing.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Steep turns;

(ii) Steep spiral (SE);

(iii) Chandelles (SE);

(iv) Lazy eights (SE).

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following task:

(i) Eights on pylons (SE).

(7) Navigation, including the applicant's knowledge and performance of the following tasks:

(i) Pilotage and dead reckoning;

(ii) Navigation systems and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-off stalls;

(iii) Power-on stalls;

(iv) Spin awareness.

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing;

(ii) Emergency descent (ME);

(iii) Engine failure during takeoff before VMC (simulated) (ME);

(iv) Engine failure after lift-off (simulated) (ME);

(v) Approach and landing with an inoperative engine (simulated) (ME);

(vi) Systems and equipment malfunctions;

(vii) Emergency equipment and survival gear.

(10) High altitude operations, including the applicant's knowledge and performance of the following tasks:

(i) Supplemental oxygen;

(ii) Pressurisation.

(11) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring with one engine inoperative;

(ii) VMC demonstration;

(iii) Engine failure during flight (by reference to instruments);

(iv) Instrument approach – one engine inoperative (by reference to instruments).

(12) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing, parking and securing;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Ramping/beaching (S).

IS 2.3.6.3 CPL SKILL TEST—HELICOPTER CATEGORY

The skill test for the commercial pilot licence – helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) National airspace system;

(v) Performance and limitations;

(vi) Operation of system;

(vii) Minimum equipment list;

(viii) Aeromedical factors;

(ix) Physiological aspects of night flying;

(x) Lighting and equipment for night flying.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting and rotor engagement;

(iv) Before takeoff check.

(3) Aerodrome and heliport operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and heliport markings and lighting.

(4) Hovering manoeuvres, including the applicant's knowledge and performance of the following tasks:
  (i) Vertical takeoff and landing;
  (ii) Slope operations;
  (iii) Surface taxi;
  (iv) Hover taxi;
  (v) Air taxi.

(5) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
  (i) Normal and crosswind takeoff and climb;
  (ii) Normal and crosswind approach and landing;
  (iii) Maximum performance takeoff and climb;
  (iv) Steep approach;
  (v) Rolling takeoff;
  (vi) Shallow approach and running/roll-on landing;
  (vii) Go-around.

(6) Performance manoeuvre, including the applicant's knowledge and performance of the following tasks:
  (i) Rapid deceleration;
  (ii) 180 Degrees autorotation.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:
  (i) Pilotage and dead reckoning;
  (ii) Radio navigation and radar services;
  (iii) Diversion;
  (iv) Lost procedures.

(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:
  (i) Power failure at a hover;
  (ii) Power failure at altitude;
  (iii) Systems and equipment malfunctions;
  (iv) Settling-with-power;
  (v) Low rotor RPM recovery;
  (vi) Dynamic rollover;
  (vii) Ground resonance;
  (viii) Low G conditions;
  (ix) Emergency equipment and survival gear.

(9) Special operations, including the applicant's knowledge and performance of the following tasks:
  (i) Confined area operation;
  (ii) Pinnacle/platform operations.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) After landing, parking and securing.

IS 2.3.6.4 CPL SKILL TEST—POWERED-LIFT CATEGORY

Reserved.

IS 2.3.6.5 CPL SKILL TEST—AIRSHIP CATEGORY

The skill test for the commercial pilot licence –airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Technical subjects, including the applicant's knowledge and performance of the following tasks:
- (i) Aeromedical factors;
- (ii) Visual scanning and collision avoidance;
- (iii) Use of distractions during flight training;
- (iv) Principles of flight;
- (v) Airship weigh-off, ballast, and trim;
- (vi) Night operations;
- (vii) Regulations and publications;
- (viii) National airspace system;
- (ix) Logbook entries and licence endorsement.

(2) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
- (i) Licences and documents;
- (ii) Weather information;
- (iii) Cross-country flight planning;
- (iv) Performance and limitations;
- (v) Operations of systems.

(3) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:
- (i) Manoeuvre lesson.

(4) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
- (i) Preflight inspection;
- (ii) Cockpit management;
- (iii) Engine starting;
- (iv) Unmasting and positioning for takeoff;
- (v) Ground handling;
- (vi) Before takeoff check.

(5) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
- (i) Radio communications;
- (ii) Traffic pattern operations;
- (iii) Aerodrome, runway, and taxiway markings and lighting.

(6) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
- (i) Flight to, from, and at pressure height;
- (ii) In-flight weigh-off;
- (iii) Manual pressure control;
- (iv) Static and dynamic trim.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:
- (i) Pilotage and dead reckoning;
- (ii) Diversion;
- (iii) Lost procedures;
- (iv) Navigation systems and air traffic control radar services.

(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Aborted takeoff;
(ii) Engine failure during takeoff;
(iii) Engine failure during flight;
(iv) Engine fire during flight;
(v) Envelope emergencies;
(vi) Free ballooning;
(vii) Ditching and emergency landing;
(viii) Systems and equipment malfunctions.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Masting;
(ii) Post-masting.

IS 2.3.6.6 RESERVED

IS 2.3.6.7 RESERVED

IS 2.3.7 MULTI-CREW PILOT LICENCE

IS 2.3.7.2 MULTI-CREW PILOT LICENCE SKILL TEST – AEROPLANE CATEGORY

The skill test for the multi-crew pilot licence shall determine that the applicant, as pilot flying and pilot not flying, possesses the required skills in the following competency areas to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with at least two pilots under VFR and IFR:

(1) Apply threat and error management principles;
(2) Perform aeroplane ground operations;
(3) Perform take-off;
(4) Perform climb;
(5) Perform cruise;
(6) Perform descent;
(7) Perform approach;
(8) Perform landing, and perform after-landing and aeroplane post-flight operations.

IS 2.3.8 AIRLINE TRANSPORT PILOT LICENCE

IS 2.3.8.2 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—AEROPLANE CATEGORY

The skill test for the airline transport pilot licence - aeroplanes shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks;
(i) Equipment examination;
(ii) Performance and limitations.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Preflight inspection;
(ii) Powerplant start;

(iii) Taxiing;

(iv) Before takeoff checks.

(3) Takeoffs and departure phase, including the applicant's knowledge and performance of the following tasks:

(i) Normal takeoffs with different flap settings, including expedited takeoff;

(ii) Instrument takeoff;

(iii) Powerplant failure during takeoff;

(iv) Rejected takeoff;

(v) Departure procedures.

(4) In-flight manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Steep turns;

(ii) Approach to stalls;

(iii) Powerplant failure;

(iv) Specific flight characteristics;

(v) Recovery from unusual altitudes.

(5) Instrument procedures, including the applicant's knowledge and performance of the following tasks:

(i) Standard terminal arrival/flight management system procedures;

(ii) Holding procedures;

(iii) Precision instrument approaches;

(iv) Non-precision instrument approaches;

(v) Circling approach;

(vi) Missed approach.

(6) Landings and approaches to landings, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind approaches and landings;

(ii) Landing from a precision approach;

(iii) Approach and landing with (simulated) powerplant failure;

(iv) Landing from a circling approach;

(v) Rejected landing;

(vi) Landing from a no-flap or a non-standard flap approach;

(vii) Normal and abnormal procedures.;

(viii) Emergency procedures.

(7) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing procedures;

(ii) Parking and securing.

IS 2.3.8.3 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—HELICOPTER CATEGORY

The skill test for the airline transport pilot licence for helicopters shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparations and checks, including the applicant's knowledge and performance of the following tasks:

(i) Equipment examination;

(ii) Performance and limitations.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection.

(ii) Powerplant start.
(iii) Taxiing;
(iv) Pre-takeoff checks.

(3) Takeoff and departure phase, including the applicant's knowledge and performance of the following tasks:
(i) Normal and crosswind takeoff;
(ii) Instrument takeoff;
(iii) Powerplant failure during takeoff;
(iv) Rejected takeoff;
(v) Instrument departure.

(4) In-flight manoeuvres, including the applicant's knowledge and performance of the following tasks:
(i) Steep turns;
(ii) Powerplant failure-multi-engine helicopter;
(iii) Powerplant failure-single-engine helicopter;
(iv) Recovery from unusual altitudes;
(v) Settling with power.

(5) Instrument procedures, including the applicant's knowledge and performance of the following tasks;
(i) Instrument arrival;
(ii) Holding;
(iii) Precision instrument approaches;
(iv) Non-precision instrument approaches;
(v) Missed approach.

(6) Landings and approaches to landings, including the applicant's knowledge and performance of the following tasks:
(i) Normal and crosswind approaches and landings;
(ii) Approach and landing with simulated powerplant failure-multiengine helicopter;
(iii) Rejected landing.

(7) Normal and abnormal procedures, including the applicant's knowledge and performance.

(8) Emergency procedures, including the applicant's knowledge and performance.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
(i) After landing procedures;
(ii) Parking and securing.

IS 2.3.8.4 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—POWERED-LIFT CATEGORY

Reserved.

IS 2.3.9 INSTRUMENT RATING

IS 2.3.9.2 INSTRUMENT RATING SKILL TEST AND PROFICIENCY CHECK

The skill test and proficiency check for the instrument rating shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:

Note: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Weather information;

(ii) Cross-country flight planning.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Aircraft systems related to IFR operations;

(ii) Aircraft flight instruments and navigation equipment;

(iii) Instrument cockpit check.

(3) Air traffic control clearances and procedures, including the applicant's knowledge and performance of the following tasks:

(i) Air traffic control clearances;

(ii) Compliance with departure, en route and arrival procedures and clearances;

(iii) Holding procedures.

(4) Flight by reference to instruments, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Change of airspeed;

(iii) Constant airspeed climbs and descents;

(iv) Rate climbs and descents;

(v) Timed turns to magnetic compass headings;

(vi) Steep turns;

(vii) Recovery from unusual flight attitudes.

(5) Navigation systems, including the applicant's knowledge and performance of the following tasks:

(i) Intercepting and tracking navigational systems and DME Arcs;

(ii) Instrument approach procedures, including the applicant's knowledge and performance of the following tasks:

(A) Non-precision instrument approach.

(B) Precision ILS instrument approach.

(C) Missed approach.

(D) Circling approach.

(E) Landing from a straight-in or circling approach.

(6) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Loss of communications;

(ii) One engine inoperative during straight-and-level flight and turns (ME);

(iii) One engine inoperative – instrument approach (ME);

(iv) Loss of gyro attitude and/or heading indicators;

(7) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Checking instruments and equipment.

IS 2.3.10 INSTRUCTOR FOR PILOT LICENSING

IS 2.3.10.2 FLIGHT INSTRUCTOR SKILL TEST AND PROFICIENCY CHECK

(a) **Aeroplane Category.** The skill test and proficiency check for the flight instructor rating - aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category and class of aircraft:

Note 1: When (SE) is indicated the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Fundamentals of instruction, including the applicant's knowledge and performance of the following tasks:

- (i) The learning process;
- (ii) The teaching process;
- (iii) Teaching methods;
- (iv) Evaluation;
- (v) Flight instructor characteristics and responsibilities;
- (vi) Human factors;
- (vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

- (i) Aeromedical factors;
- (ii) Visual Scanning and collision avoidance;
- (iii) Principles of flight;
- (iv) Aeroplane flight controls;
- (v) Aeroplane weight and balance;
- (vi) Navigation and flight planning;
- (vii) Night operations;
- (viii) High altitude operations;
- (ix) Regulations and publications;
- (x) Use of minimum equipment list;
- (xi) National airspace system;
- (xii) Navigation aids and radar services;
- (xiii) Logbook entries and licence endorsements;
- (xiv) Water and seaplane characteristics (S);
- (xv) Seaplane bases, rules and aids to marine navigation (S).

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

- (i) Licences and documents;
- (ii) Weather information;
- (iii) Operation of systems (SE);
- (iv) Performance and limitations (SE);
- (v) Airworthiness requirements.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:

- (i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

- (i) Preflight inspection;
- (ii) Cockpit management;
- (iii) Engine starting;
- (iv) Taxiing (L);
- (v) Taxiing (S);

(vi) Sailing (S);

(vii) Before takeoff check.

(6) Aerodrome and seaplane base operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and runway markings and lighting.

(7) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Short field (Confined area (S)) takeoff and maximum performance climb;

(iii) Soft field takeoff and climb (SE);

(iv) Glassy water takeoff and climb (S);

(v) Rough water takeoff and climb (S);

(vi) Normal and crosswind approach and landing;

(vii) Slip to a landing (SE);

(viii) Go-around/rejected landing;

(ix) Short field (Confined area (S)) approach and landing;

(x) Soft field approach and landing (SEL);

(xi) Power-off 180 degrees accuracy approach and landing (SEL);

(xii) Glassy water approach and landing (S);

(xiii) Rough water approach and landing (S).

(8) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Level turns;

(iii) Straight climbs and climbing turns;

(iv) Straight descents and descending turns.

(9) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Steep turns;

(ii) Steep spirals (SE);

(iii) Chandelles (SE);

(iv) Lazy eights (SE).

(10) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks;

(i) Rectangular course;

(ii) S-turns across a road;

(iii) Turns around a point;

(iv) Eights on pylons (SE).

(11) Slow flight, stalls and spins, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-on stalls (proficiency);

(iii) Power-off stalls (proficiency);

(iv) Crossed-control stalls (demonstration) (SE);

(v) Elevator trim stalls (demonstration) (SE);

(vi) Secondary stalls (demonstration) (SE);

(vii) Spins (SEL).

(12) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight attitudes.

(13) Emergency operations (SE), including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing (simulated);

(ii) Systems and equipment malfunctions;

(iii) Emergency equipment and survival gear.

(14) Emergency operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Systems and equipment malfunctions;

(ii) Engine failure during takeoff before VMC;

(iii) Engine failure after lift-off;

(iv) Approach and landing with an inoperative engine;

(v) Emergency descent;

(vi) Emergency equipment and survival gear.

(15) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Operation of systems;

(ii) Performance and limitations;

(iii) Flight principles – engine inoperative;

(iv) Manoeuvring with one engine inoperative;

(v) VMC demonstration;

(vi) Demonstrating the effects of various airspeeds and configurations during engine inoperative performance.

(16) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Post-flight procedures;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Beaching (S);

(v) Ramping (S).

(b) **Helicopter Category.** The skill test and proficiency check for the flight instructor rating for helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable, class or type, of aircraft:

(1) Fundamentals of instruction, including the applicant's knowledge and performance of the following tasks:

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance;

(iii) Use of distractions during flight training;

(iv) Principles of flight;

(v) Helicopter flight controls;

(vi) Helicopter weight and balance;

(vii) Navigation and flight planning;

(viii) Night operations;

(ix) Regulations and publications;

(x) Use of minimum equipment list;

(xi) National airspace system;

(xii) Logbook entries and licence endorsements.

(3) Preflight preparation including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) Operation of systems;

(iv) Performance and limitations;

(v) Airworthiness requirements.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:

(i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine starting and rotor engagement;

(iv) Before takeoff check.

(6) Aerodrome operations and Heliport operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and Heliport Markings and lighting.

(7) Hovering Manoeuvres. including the applicant's knowledge and performance of the following tasks:

(i) Vertical takeoff and landing;

(ii) Surface taxi;

(iii) Hover taxi;

(iv) Air taxi;

(v) Slope operation.

(8) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Maximum performance takeoff and climb;

(iii) Rolling takeoff;

(iv) Normal and crosswind approach;

(v) Steep approach;

(vi) Shallow approach and running/roll-on landing;

(vii) Go-around.

(9) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Level turns;

(iii) Straight climbs and climbing turns;

(iv) Straight descents and descending turns.

(10) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Rapid deceleration;

(ii) Straight-in autorotation;

(iii) 180 degrees autorotation.

(11) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Settling-with-power;

(iv) Low rotor RPM recovery;

(v) Antitorque system failure;

(vi) Dynamic rollover;

(vii) Ground resonance;

(viii) Low "G" conditions;

(ix) Systems and equipment malfunctions:

(x) Emergency equipment and survival gear.

(12) Special operations, including the applicant's knowledge and performance of the following tasks:

(i) Confined area operation;

(ii) Pinnacle/platform operation.

(13) Post-flight procedures, including the applicant's knowledge and performance of the following task:

(i) After-landing and securing.

(c) **Powered-lift Category.**

Reserved.

(d) **Airship Category**. The skill test and proficiency check for the flight instructor rating for airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:

(1) Fundamentals of instruction, including the applicant's knowledge and performance of the following tasks:

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance
(iii) Use of distractions during flight training;
(iv) Principles of flight;
(v) Airship weigh-off, ballast, and trim;
(vi) Night operations;
(vii) Regulations and publications;
(viii) National airspace system;
(ix) Logbook entries and licence endorsement.

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
(i) Licences and documents;
(ii) Weather information;
(iii) Cross-country flight planning;
(iv) Performance and limitations;
(v) Operations of systems.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's and performance of the following task:
(i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Preflight inspection;
(ii) Cockpit management;
(iii) Engine starting;
(iv) Unmasting and positioning for takeoff;
(v) Ground handling;
(vi) Before takeoff check.

(6) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
(i) Radio communications;
(ii) Traffic pattern operations;
(iii) Aerodrome, runway and taxiway markings and lighting.

(7) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
(i) Flight to, from, and at pressure height;
(ii) In-flight weigh-off;
(iii) Manual pressure control;
(iv) Static and dynamic trim.

(8) Navigation, including the applicant's knowledge and performance of the following tasks:
(i) Pilotage and dead reckoning;
(ii) Diversion;
(iii) Lost procedures;
(iv) Navigation systems and air traffic control radar services.

(9) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:
(i) Straight-and level flight;
(ii) Constant airspeed climbs;
(iii) Constant airspeed descents;
(iv) Turns to headings;
(v) Recovery from unusual flight attitudes.

(10) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Aborted takeoff;

(ii) Engine failure during takeoff;

(iii) Engine failure during flight;

(iv) Engine fire during flight;

(v) Envelope emergencies;

(vi) Free ballooning;

(vii) Ditching and emergency landing;

(viii) Systems and equipment malfunctions.

(11) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Masting;

(ii) Post-masting.

(e) **Flight Instructor for Instrument Ratings (A, H, and PL).** The skill test and proficiency for the flight instructor for instrument ratings for aeroplane, helicopter and powered-lift shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable class, of aircraft:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item and paragraph are for single-engine and multi-engine.

Note 2: When (A) is indicated, the item or paragraph is only for Aeroplane. When (H) is indicated, the item or paragraph is only for Helicopter. When nothing is indicated, the item and the paragraph are for all categories.

(1) Fundamentals of instructing, including the applicant's knowledge and performance of the following tasks:

(i) The learning process;

(ii) Human behaviour and effective communication;

(iii) The teaching process;

(iv) Teaching methods;

(v) Critique and evaluation;

(vi) Flight instructor characteristics and responsibilities;

(vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

(i) Aircraft flight instruments and navigation equipment;

(ii) Aeromedical factors;

(iii) Regulations and publications related to IFR operations;

(iv) Logbook entries related to instrument instruction.

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Weather information;

(ii) Cross-country flight planning;

(iii) Instrument cockpit check.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:

(i) Manoeuvre lesson.

(5) Air traffic control clearances and procedures, including the applicant's knowledge and performance of the following tasks:

(i) Air traffic control clearances;

(ii) Compliance with departure, en-route and arrival procedures and clearances.

(6) Flight by reference to instruments, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Turns;

(iii) Change of airspeed in straight-and-level and turning flight;

(iv) Constant airspeed climbs and descents;

(v) Constant rate climbs and descents;

(vi) Timed turns to magnetic compass headings;

(vii) Steep turns;

(viii) Recovery from unusual flight altitudes.

(7) Navigation systems, including the applicant's knowledge and performance of the following tasks:

(i) Intercepting and tracking navigational systems and DME Arcs;

(ii) Holding procedures.

(8) Instrument approach procedures, including the applicant's knowledge and performance of the following tasks:

(i) Non-precision instrument approach;

(ii) Precision instrument approach;

(iii) Missed approach;

(iv) Circling approach (A);

(v) Landing from a straight-in approach.

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Loss of communications;

(ii) Loss of gyro attitude and heading indicators;

(iii) Engine failure during straight-and-level flight and turns;

(iv) Instrument approach – one engine inoperative.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following task:

(i) Checking instruments and equipment.

(f) **Flight Instructor for Additional Type Ratings.** The skill test and proficiency checks for instructors for additional type ratings for aeroplane and helicopter shall include at least the following areas of operation:

Note: When (A) is indicated, the item or paragraph is only for Aeroplane. When (H) is indicated, the item or paragraph is only for Helicopter. When nothing is indicated, the item and the paragraph are for Aeroplane and Helicopter.

(1) Technical subject areas

(i) The content of the technical subject areas shall cover the areas as applicable to the aircraft class or type.

(ii) Flight simulator, including the applicant's knowledge and performance of the following tasks:

(A) Use of checklist, setting of radios/navigation aids;

(B) Starting engines;

(C) Takeoff checks;

(D) Instrument takeoff, transition to instruments after lift off;

(E) Engine failure during take-off between V1 and V2 (A);

(F) Aborted takeoff prior to reaching V1 (A);

(G) High mach buffeting, specific flight characteristics (if necessary) (A);

(H) Takeoff with engine failure prior to TDP or DPATO or shortly after TDP or DPATO (H);

(I) Steep turns;

(J) Recovery from approach to stall/takeoff, clean landing configuration (A);

(K) Instrument approach to required minimum decision height or minimum descent height/altitude, manual one engine simulated inoperative during approach and landing or go-around (A);

(L) Instrument approach to required minimum decision height or minimum descent height/altitude, autopilot one engine simulated inoperative during approach and landing or go-around (H);

(M) Rejected landing and go-around;

(N) Crosswind landing.

(iii) Category II and III operations, if applicable, including the applicant's knowledge and performance of the following tasks:

(A) Precision approaches, automatic with auto-throttle and flight director go-around caused by aircraft or ground equipment deficiencies;

(B) Go-around caused by weather conditions;

(C) Go-around at DH caused by offset position from centerline;

(D) One of the CAT II/CAT III approaches must lead to a landing.

(iv) Aircraft, including the applicant's knowledge and performance of the following tasks:

(A) Familiarisation with controls during outside checks;

(B) Use of checklist, setting of radios and navigation aids, starting engines.

(C) Taxiing;

(D) Takeoff;

(E) Engine failure during takeoff short after V2, after reaching climb out attitude (A);

(F) Engine failure during takeoff short after TDP or DPATO after reaching climb out attitude (H);

(G) Other emergency procedures (if necessary);

(H) Instrument approaches to required minimum decision height, manual one engine out during approach and landing or go-around;

(I) One engine simulated inoperative go-around from required minimum decision height;

(J) One engine (critical) simulated inoperative landing.

IS 2.3.11 DESIGNATED PILOT EXAMINERS

IS 2.3.11.1 SKILL TEST FOR DESIGNATED PILOT EXAMINERS

(a) The skill test for initial designation of a pilot examiner, issuance of additional designations, and renewal of examiner designations shall contain both the appropriate oral questioning and aircraft or flight simulation training device performance in accordance with the applicable skill test for the aircraft category, and or class/type ratings as applicable.

(b) Methods of skill testing. The Authority inspector will choose one of the following methods to test an examiner pilot applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.

(1) The Authority inspector evaluates the pilot examiner applicant testing an actual pilot applicant for a licence or rating.

(i) The Authority will arrange for the pilot examiner applicant to conduct a skill test for an actual pilot applicant for a licence or rating appropriate to the examiner designation sought, and the Authority inspector will observe the test from within the aircraft.

(ii) The Authority inspector will evaluate the pilot examiner applicant's performance while the pilot examiner applicant evaluates the pilot applicant.

(iii) Any discussion between the pilot examiner applicant and the Authority inspector concerning the pilot examiner applicant's performance with the pilot applicant will be held in private.

(iv) At the conclusion of the skill test for the actual pilot licence or rating:

(A) If the applicant has passed the skill test, the pilot examiner applicant will fill out the appropriate documentation for the pilot applicant while the Authority inspector observes. The Authority inspector will sign any documentation needed.

(B) If the pilot applicant does not pass the skill test, the Authority inspector will complete and sign the appropriate document needed.

(2) The Authority inspector playing the role of pilot applicant for a skill test.

(i) The Authority inspector will play the role of a pilot applicant for a skill test appropriate to the type of designation the pilot examiner applicant is seeking.

(ii) If the Authority inspector answers a question incorrectly to test whether the pilot examiner applicant recognises an incorrect answer, the incorrect response must be obviously wrong.

(3) The Authority inspector gives a flight skill test to the pilot examiner applicant.

(i) The Authority inspector will test the pilot examiner applicant on selected manoeuvres in order to assess the pilot examiner applicant's flight proficiency and ability to evaluate a pilot applicant in accordance with the appropriate skill test.

(ii) The Authority inspector will evaluate the pilot examiner applicant's plan of action for completeness and efficiency.

IS 2.3.14 PILOT EXAMINATIONS DETAILS

IS 2.3.14.1 PILOT'S EXAMINATION AREAS, SUBJECTS, NUMBER OF QUESTIONS AND TIME ALLOWED

(a) The distribution of the areas, subjects, number of questions and time allowed in the examination is in accordance with the type of licence and instrument rating.

(b) This distribution, areas and subjects numbering shall be followed by the personnel in charge unless otherwise decided by the authority.

PRIVATE PILOT

Subject: Overall					
Theoretical knowledge examination					
Exam length, total number of questions and distribution of questions					
		PPL (A)	PPL (H)	Time allowed (hours)	
				PPL (A)	PPL (H)
Distribution of questions with regard to the topics of the syllabus					
010	Air Law and ATC Procedures	13	13	0:30	0:30
021	Aircraft general knowledge	17	17	0:30	0:30
030	Flight performance and planning	15	18	0:40	0:40
040	Human performance and limitations	12	12	0:20	0:20
050	Meteorology	12	12	0:20	0:20
061	Navigation	19	19	0:40	0:40
070	Operational procedures	10	12	0:20	0:20
081	Princeples of flight	12	16	0:20	0:30
091	Communications	12	12	0:20	0:20
Total questions		122	131		

ATPL, CPL, IR AND DISPATCHER

Subject: 010 - AIR LAW							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	0:45	0:45	0:45	0:45	1:00
Distribution of questions with regard to the topics of the syllabus							
010 01	3	2	3	2	XX	XX	3
010 02	2	2	2	2	XX	XX	2
010 03	1	1	1	1	XX	XX	1
010 04	2	2	2	2	1	1	2
010 05	8	8	8	8	8	8	8
010 06	7	4	3	4	7	7	7
010 07	5	3	3	3	5	5	5
010 08	2	2	2	2	2	2	2
010 09	6	4	4	4	6	6	6
010 10	2	1	1	1	XX	XX	2
010 11	2	2	2	2	XX	XX	2
010 12	2	1	1	1	XX	XX	2
010 13	2	1	1	1	XX	XX	2
Total questions	44	33	33	33	29	29	44

Subject: 021 - AIRCRAFT GENERAL KNOWLEDGE - AIRFRAME/SYSTEMS/POWER PLANT							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	2:00	1:30	XX	XX	2:00
Distribution of questions with regard to the topics of the syllabus							
021 01	4	2	4	2	XX	XX	4
021 02	4	4	4	2	XX	XX	4
021 03	5	3	4	3	XX	XX	5
021 04	5	6	4	2	XX	XX	5
021 05	7	4	6	3	XX	XX	7
021 06	5	4	4	2	XX	XX	5
021 07	4	4	2	2	XX	XX	4
021 08	6	4	4	4	XX	XX	6
021 09	6	6	6	4	XX	XX	6
021 10	6	14	6	8	XX	XX	6
021 11	20	6	20	13	XX	XX	20
021 12	4	2	2	2	XX	XX	4
021 13	4	2	XX	XX	XX	XX	4
021 14	XX	XX	1	1	XX	XX	XX
021 15	XX	XX	4	3	XX	XX	XX
021 16	XX	XX	6	5	XX	XX	XX
021 17	XX	XX	3	4	XX	XX	XX

Total questions	80	61	80	60	0	0	80

Subject: 022 - AIRCRAFT GENERAL KNOWLEDGE - INSTRUMENTATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:30	1:00	1:30	1:00	0:30	0:30	1:30
Distribution of questions with regard to the topics of the syllabus							
022 01	8	8	8	8	XX	XX	8
022 02	8	6	8	6	6	6	8
022 03	4	4	4	4	4	4	4
022 04	4	5	6	5	4	4	4
022 05	5	XX	3	XX	XX	XX	5
022 06	8	6	XX	XX	XX	XX	8
022 07	XX	XX	14	8	XX	XX	XX
022 08	3	2	XX	XX	XX	XX	3
022 09	2	XX	XX	XX	XX	XX	2
022 10	2	XX	XX	XX	XX	XX	2
022 11	4	XX	4	XX	XX	XX	4
022 12	6	4	6	4	3	3	6
022 13	4	4	5	4	3	3	4
022 14	1	XX	1	XX	XX	XX	1
022 15	1	XX	1	XX	XX	XX	1
Total questions	60	39	60	39	20	20	60

Subject: 031 - FLIGHT PERFORMANCE AND PLANNING - MASS AND BALANCE							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	1:00	1:00	1:00	XX	XX	1:00
Distribution of questions with regard to the topics of the syllabus							
031 01	3	3	3	3	XX	XX	3
031 02	5	5	5	5	XX	XX	5
031 03	5	5	5	5	XX	XX	5
031 04	5	5	5	5	XX	XX	5
031 05	5	5	5	5	XX	XX	5
031 06	2	2	2	2	XX	XX	2
Total questions	25	25	25	25	0	0	25

Subject: 032 - FLIGHT PERFORMANCE AND PLANNING - PERFORMANCE (AEROPLANES)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	XX	XX	XX	XX	1:00
Distribution of questions with regard to the topics of the syllabus							
032 01	5	5	XX	XX	XX	XX	5
032 02	10	10	XX	XX	XX	XX	10
032 03	10	10	XX	XX	XX	XX	10
032 04	10	XX	XX	XX	XX	XX	10
Total questions	35	25	0	0	0	0	35

Subject: 033 - FLIGHT PERFORMANCE AND PLANNING - FLIGHT PLANNING AND MONITORING							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	1:30	1:30	1:30	1:30	2:00
Distribution of questions with regard to the topics of the syllabus							
033 01	5	5	5	5	5	XX	5
033 02	10	XX	XX	XX	XX	10	10
033 03	10	10	10	10	10	5	10
033 04	8	8	8	8	8	8	8
033 05	5	5	5	5	5	5	5
033 06	5	5	5	5	5	5	5
Total questions	43	33	33	33	33	33	43

Subject: 034 - FLIGHT PERFORMANCE AND PLANNING - PERFORMANCE (HELICOPTER)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	XX	XX	1:00	0:45	XX	XX	XX
Distribution of questions with regard to the topics of the syllabus							
034 01	XX	XX	15	15	XX	XX	XX
034 02	XX	XX	5	5	XX	XX	XX
034 03	XX	XX	5	XX	XX	XX	XX
034 04	XX	XX	10	XX	XX	XX	XX
Total questions	0	0	35	20	0	0	0

Subject: 040 - HUMAN PERFORMANCE							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	1:00	0:45	0:45	0:45	1:00
Distribution of questions with regard to the topics of the syllabus							
040 01	2	1	2	1	1	1	2
040 02	33	26	33	26	26	26	33
040 03	13	9	13	9	9	9	13
Total questions	48	36	48	36	36	36	48

Subject: 050 - METEOROLOGY							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	2:00	1:30	1:30	1:30	2:00
Distribution of questions with regard to the topics of the syllabus							
050 01	11	9	11	9	9	9	11
050 02	11	6	11	6	6	6	11
050 03	4	4	4	4	4	4	4
050 04	7	6	7	6	6	6	7
050 05	3	3	3	3	3	3	3
050 06	7	7	7	7	7	7	7
050 07	6	2	6	2	2	2	6
050 08	8	3	8	3	3	3	8
050 09	11	9	11	9	9	9	11
050 10	16	14	16	14	14	14	16
Total questions	84	63	84	63	63	63	84

Subject: 061 - GENERAL NAVIGATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	2:00	1:30	XX	XX	2:00
Distribution of questions with regard to the topics of the syllabus							
061 01	12	7	12	7	XX	XX	12
061 02	4	4	4	4	XX	XX	4
061 03	14	12	14	12	XX	XX	14
061 04	16	11	16	11	XX	XX	16

061 05	14	11	14	11	XX	XX	14
Total questions	60	45	60	45	0	0	60

Subject: 062 - RADIO NAVIGATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:30	0:30	1:30	0:30	1:00	1:00	1:30
Distribution of questions with regard to the topics of the syllabus							
062 01	7	4	5	4	2	2	7
062 02	21	12	15	12	23	23	21
062 03	12	2	8	2	5	5	12
062 04	XX	XX	XX	XX	XX	XX	XX
062 05	15	XX	XX	XX	10	10	15
062 06	11	4	6	4	4	4	11
Total questions	66	22	34	22	44	44	66

Subject: 070 - OPERATIONAL PROCEDURE							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:15	0:45	1:00	0:45	XX	XX	1:15
Distribution of questions with regard to the topics of the syllabus							
070 01	25	18	18	14	XX	XX	25
070 02	20	12	14	12	XX	XX	20
070 03	XX	XX	6	4	XX	XX	XX
Total questions	45	30	38	30	0	0	45

Subject: 081 - PRINCIPLES OF FLIGHT (AEROPLANES)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	XX	XX	XX	XX	1:00
Distribution of questions with regard to the topics of the syllabus							
081 01	17	14	XX	XX	XX	XX	17
081 02	6	XX	XX	XX	XX	XX	6
081 03	XX	XX	XX	XX	XX	XX	XX
081 04	6	6	XX	XX	XX	XX	6

081 05	4	3	XX	XX	XX	XX	4
081 06	3	3	XX	XX	XX	XX	3
081 07	4	3	XX	XX	XX	XX	4
081 08	4	4	XX	XX	XX	XX	4
Total questions	44	33	0	0	0	0	44

Subject: 082 - PRINCIPLES OF FLIGHT (HELICOPTERS)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	XX	XX	1:00	1:00	XX	XX	XX
Distribution of questions with regard to the topics of the syllabus							
082 01	XX	XX	5	5	XX	XX	XX
082 02	XX	XX	3	3	XX	XX	XX
082 03	XX	XX	1	1	XX	XX	XX
082 04	XX	XX	12	12	XX	XX	XX
082 05	XX	XX	10	10	XX	XX	XX
082 06	XX	XX	5	5	XX	XX	XX
082 07	XX	XX	5	5	XX	XX	XX
082 08	XX	XX	3	3	XX	XX	XX
Total questions	0	0	44	44	0	0	0

Subject: 091 - VFR COMMUNICATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	0:30	0:30	0:30	0:30	XX	XX	0:30
Distribution of questions with regard to the topics of the syllabus							
091 01	5	5	5	5	XX	XX	5
091 02	11	11	11	11	XX	XX	11
091 03	2	2	2	2	XX	XX	2
091 04	2	2	2	2	XX	XX	2
091 05	2	2	2	2	XX	XX	2
091 06	2	2	2	2	XX	XX	2
Total questions	24	24	24	24	0	0	24

Subject: 092 - IFR COMMUNICATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	0:30	XX	XX	XX	0:30	0:30	0:30
Distribution of questions with regard to the topics of the syllabus							
092 01	5	XX	XX	XX	5	5	5
092 02	11	XX	XX	XX	11	11	11
092 03	2	XX	XX	XX	2	2	2
092 04	2	XX	XX	XX	2	2	2
092 05	2	XX	XX	XX	2	2	2
092 06	2	XX	XX	XX	2	2	2
092 07	XX	XX	XX	XX	XX	XX	XX
Total questions	24	0	0	0	24	24	24

IS 2.6.1 AIRCRAFT MAINTENANCE LICENCE

IS 2.6.1.7 BASIC KNOWLEDGE REQUIREMENTS

1. Knowledge levels for Category A, B1, B2, B3 and C Aircraft Maintenance Licence

Basic knowledge for categories A, B1, B2 and B3 are indicated by knowledge levels (1, 2 or 3) against each applicable subject. Category C applicants shall meet either the category B1 or the category B2 basic knowledge levels.

The knowledge level indicators are defined on 3 levels as follows:

LEVEL 1*: A familiarisation with the principal elements of the subject.*

Objectives:

1. The applicant should be familiar with the basic elements of the subject.
2. The applicant should be able to give a simple description of the whole subject, using common words and examples.
3. The applicant should be able to use typical terms.

LEVEL 2*: A general knowledge of the theoretical and practical aspects of the subject and an ability to apply that knowledge.*

Objectives:

1. The applicant should be able to understand the theoretical fundamentals of the subject.
2. The applicant should be able to give a general description of the subject using, as appropriate, typical examples.
3. The applicant should be able to use mathematical formulae in conjunction with physical laws describing the subject.
4. The applicant should be able to read and understand sketches, drawings and schematics describing the subject.
5. The applicant should be able to apply his knowledge in a practical manner using detailed procedures.

***LEVEL 3**: A detailed knowledge of the theoretical and practical aspects of the subject and a capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner.*

Objectives:

(1) The applicant should know the theory of the subject and interrelationships with other subjects.

(2) The applicant should be able to give a detailed description of the subject using theoretical fundamentals and specific examples.

(3) The applicant should understand and be able to use mathematical formulae related to the subject.

(4) The applicant should be able to read, understand and prepare sketches, simple drawings and schematics describing the subject.

(5) The applicant should be able to apply his knowledge in a practical manner using manufacturer's instructions.

(6) The applicant should be able to interpret results from various sources and measurements and apply corrective action where appropriate.

2. Modularisation

Qualification on basic subjects for each aircraft maintenance licence category or subcategory should be in accordance with the following matrix, where applicable subjects are indicated by an 'X':

Subject module	A or B1 aeroplane with:		A or B1 helicopter with:		B2	B3
	Turbine engine(s)	Piston engine(s)	Turbine engine(s)	Piston engine(s)	Avionics	Piston-engine non-pressurised aeroplanes 2 000 kg MTOM and below
1	X	X	X	X	X	X
2	X	X	X	X	X	X
3	X	X	X	X	X	X
4	X	X	X	X	X	X
5	X	X	X	X	X	X
6	X	X	X	X	X	X
7A	X	X	X	X	X	
7B						X
8	X	X	X	X	X	X
9A	X	X	X	X	X	
9B						X
10	X	X	X	X	X	X
11A	X					
11B		X				

11C						X
12			X	X		
13					X	
14					X	
15	X		X			
16		X		X		X
17A	X	X				
17B						X

MODULE 1. MATHEMATICS

	LEVEL			
	A	B1	B2	B3
1.1 **Arithmetic** Arithmetical terms and signs, methods of multiplication and division, fractions and decimals, factors and multiples, weights, measures and conversion factors, ratio and proportion, averages and percentages, areas and volumes, squares, cubes, square and cube roots.	1	2	2	2
1.2 **Algebra** (a) Evaluating simple algebraic expressions, addition, subtraction, multiplication and division, use of brackets, simple algebraic fractions;	1	2	2	2
(b) Linear equations and their solutions; Indices and powers, negative and fractional indices; Binary and other applicable numbering systems; Simultaneous equations and second degree equations with one unknown; Logarithms.	—	1	1	1
1.3 **Geometry** (a) Simple geometrical constructions;	—	1	1	1
(b) Graphical representation; nature and uses of graphs, graphs of equations/functions;	2	2	2	2
(c) Simple trigonometry; trigonometrical relationships, use of tables and rectangular and polar coordinates.	—	2	2	2

MODULE 2. PHYSICS

	LEVEL			
	A	B1	B2	B3

2.1 **Matter** Nature of matter: the chemical elements, structure of atoms, molecules; Chemical compounds; States: solid, liquid and gaseous; Changes between states. 2.2 **Mechanics** 2.2.1 *Statics* Forces, moments and couples, representation as vectors;	1 1	1 2	1 1	1 1

	LEVEL			
	A	B1	B2	B3

Centre of gravity; Elements of theory of stress, strain and elasticity: tension, compression, shear and torsion; Nature and properties of solid, fluid and gas; Pressure and buoyancy in liquids (barometers).				
2.2.2 *Kinetics* Linear movement: uniform motion in a straight line, motion under constant acceleration (motion under gravity); Rotational movement: uniform circular motion (centrifugal/centripetal forces); Periodic motion: pendular movement; Simple theory of vibration, harmonics and resonance; Velocity ratio, mechanical advantage and efficiency.	1	2	1	1
2.2.3 *Dynamics* (a) Mass; Force, inertia, work, power, energy (potential, kinetic and total energy), heat, efficiency;	1	2	1	1
(b) Momentum, conservation of momentum; Impulse; Gyroscopic principles; Friction: nature and effects, coefficient of friction (rolling resistance).	1	2	2	1
2.2.4 *Fluid dynamics* (a) Specific gravity and density;	2	2	2	2
(b) Viscosity, fluid resistance, effects of streamlining; Effects of compressibility on fluids; Static, dynamic and total pressure: Bernoulli's Theorem, venturi.	1	2	1	1
2.3 **Thermodynamics** (a) Temperature: thermometers and temperature scales: Celsius, Fahrenheit and Kelvin; Heat definition;	2	2	2	2

	LEVEL			
	A	B1	B2	B3

(b) Heat capacity, specific heat; Heat transfer: convection, radiation and conduction; Volumetric expansion; First and second law of thermodynamics; Gases: ideal gases laws; specific heat at constant volume and constant pressure, work done by expanding gas; Isothermal, adiabatic expansion and compression, engine cycles, constant volume and constant pressure, refrigerators and heat pumps; Latent heats of fusion and evaporation, thermal energy, heat of combustion.	—	2	2	1
2.4 **Optics (Light)** Nature of light; speed of light; Laws of reflection and refraction: reflection at plane surfaces, reflection by spherical mirrors, refraction, lenses; Fibre optics.	—	2	2	—
2.5 **Wave Motion and Sound** Wave motion: mechanical waves, sinusoidal wave motion, interference phenomena, standing waves; Sound: speed of sound, production of sound, intensity, pitch and quality, Doppler effect.	—	2	2	—

MODULE 3. ELECTRICAL FUNDAMENTALS

	LEVEL			
	A	B1	B2	B3
3.1 **Electron Theory** Structure and distribution of electrical charges within: atoms, molecules, ions, compounds; Molecular structure of conductors, semiconductors and insulators.	1	1	1	1
3.2 **Static Electricity and Conduction** Static electricity and distribution of electrostatic charges; Electrostatic laws of attraction and repulsion; Units of charge, Coulomb's Law; Conduction of electricity in solids, liquids, gases and a vacuum.	1	2	2	1

	LEVEL			
	A	B1	B2	B3

3.3 **Electrical Terminology** The following terms, their units and factors affecting them: potential difference, electromotive force, voltage, current, resistance, conductance, charge, conventional current flow, electron flow.	1	2	2	1
3.4 **Generation of Electricity** Production of electricity by the following methods: light, heat, friction, pressure, chemical action, magnetism and motion.	1	1	1	1
3.5 **DC Sources of Electricity** Construction and basic chemical action of: primary cells, secondary cells, lead acid cells, nickel cadmium cells, other alkaline cells; Cells connected in series and parallel; Internal resistance and its effect on a battery; Construction, materials and operation of thermo-couples; Operation of photo-cells.	1	2	2	2
3.6 **DC Circuits** Ohms Law, Kirchoff's Voltage and Current Laws; Calculations using the above laws to find resistance, voltage and current; Significance of the internal resistance of a supply.	—	2	2	1
3.7 **Resistance/Resistor** (a) Resistance and affecting factors; Specific resistance; Resistor colour code, values and tolerances, preferred values, wattage ratings; Resistors in series and parallel; Calculation of total resistance using series, parallel and series parallel combinations; Operation and use of potentiometers and rheostats; Operation of Wheatstone Bridge;	—	2	2	1
(b) Positive and negative temperature coefficient conductance; Fixed resistors, stability, tolerance and limi-tations, methods of construction; Variable resistors, thermistors, voltage dependent resistors; Construction of potentiometers and rheostats; Construction of Wheatstone Bridge.	—	1	1	—

	LEVEL			
	A	B1	B2	B3

3.8 **Power** Power, work and energy (kinetic and potential); Dissipation of power by a resistor; Power formula; Calculations involving power, work and energy.	—	2	2	1
3.9 **Capacitance/Capacitor** Operation and function of a capacitor; Factors affecting capacitance area of plates, distance between plates, number of plates, dielectric and dielectric constant, working voltage, voltage rating; Capacitor types, construction and function; Capacitor colour coding; Calculations of capacitance and voltage in series and parallel circuits; Exponential charge and discharge of a capacitor, time constants; Testing of capacitors.	—	2	2	1
3.10 **Magnetism** (a) Theory of magnetism; Properties of a magnet; Action of a magnet suspended in the Earth's magnetic field; Magnetisation and demagnetisation; Magnetic shielding; Various types of magnetic material; Electromagnets construction and principles of operation; Hand clasp rules to determine: magnetic field around current carrying conductor;	—	2	2	1
(b) Magnetomotive force, field strength, magnetic flux density, permeability, hysteresis loop, retentivity, coercive force reluctance, saturation point, eddy currents; Precautions for care and storage of magnets.	—	2	2	1

	LEVEL			
	A	B1	B2	B3
3.11 **Inductance/Inductor** Faraday's Law; Action of inducing a voltage in a conductor moving in a magnetic field; Induction principles; Effects of the following on the magnitude of an induced voltage: magnetic field strength, rate of change of flux, number of conductor turns; Mutual induction; The effect the rate of change of primary current and mutual inductance has on induced voltage; Factors affecting mutual inductance: number of turns in coil, physical size of coil, permeability of coil, position of coils with respect to each other; Lenz's Law and polarity determining rules; Back emf, self induction; Saturation point; Principle uses of inductors.	—	2	2	1
3.12 **DC Motor/Generator Theory** Basic motor and generator theory; Construction and purpose of components in DC generator; Operation of, and factors affecting output and direction of current flow in DC generators; Operation of, and factors affecting output power, torque, speed and direction of rotation of DC motors; Series wound, shunt wound and compound motors; Starter Generator construction.	—	2	2	1
3.13 **AC Theory** Sinusoidal waveform: phase, period, frequency, cycle; Instantaneous, average, root mean square, peak, peak to peak current values and calculations of these values, in relation to voltage, current and power; Triangular/Square waves; Single/3 phase principles.	1	2	2	1

	LEVEL			
	A	B1	B2	B3
3.14 **Resistive (R), Capacitive (C) and Inductive (L) Circuits** Phase relationship of voltage and current in L, C and R circuits, parallel, series and series parallel; Power dissipation in L, C and R circuits; Impedance, phase angle, power factor and current calculations; True power, apparent power and reactive power calculations.	—	2	2	1
3.15 **Transformers** Transformer construction principles and operation; Transformer losses and methods for overcoming them; Transformer action under load and no-load conditions; Power transfer, efficiency, polarity markings; Calculation of line and phase voltages and currents; Calculation of power in a three phase system; Primary and Secondary current, voltage, turns ratio, power, efficiency; Auto transformers.	—	2	2	1
3.16 **Filters** Operation, application and uses of the following filters: low pass, high pass, band pass, band stop.	—	1	1	—
3.17 **AC Generators** Rotation of loop in a magnetic field and waveform produced; Operation and construction of revolving armature and revolving field type AC generators; Single phase, two phase and three phase alternators; Three phase star and delta connections advantages and uses; Permanent Magnet Generators.	—	2	2	1
3.18 **AC Motors** Construction, principles of operation and characteristics of: AC synchronous and induction motors both single and polyphase; Methods of speed control and direction of rotation; Methods of producing a rotating field: capacitor, inductor, shaded or split pole.	—	2	2	1

MODULE 4. ELECTRONIC FUNDAMENTALS

	LEVEL			
	A	B1	B2	B3
4.1 **Semiconductors**				
4.1.1 *Diodes* (a) Diode symbols; Diode characteristics and properties; Diodes in series and parallel; Main characteristics and use of silicon controlled rectifiers (thyristors), light emitting diode, photo conductive diode, varistor, rectifier diodes; Functional testing of diodes.	—	2	2	1
(b) Materials, electron configuration, electrical properties; P and N type materials: effects of impurities on conduction, majority and minority characters; PN junction in a semiconductor, development of a potential across a PN junction in unbiased, forward biased and reverse biased conditions; Diode parameters: peak inverse voltage, maximum forward current, temperature, frequency, leakage current, power dissipation; Operation and function of diodes in the following circuits: clippers, clampers, full and half wave rectifiers, bridge rectifiers, voltage doublers and triplers; Detailed operation and characteristics of the following devices: silicon controlled rectifier (thyristor), light emitting diode, Schottky diode, photo conductive diode, varactor diode, varistor, rectifier diodes, Zener diode.	—	—	2	—
4.1.2 *Transistors* (a) Transistor symbols; Component description and orientation; Transistor characteristics and properties.	—	1	2	1
(b) Construction and operation of PNP and NPN transistors; Base, collector and emitter configurations; Testing of transistors; Basic appreciation of other transistor types and their uses; Application of transistors: classes of amplifier (A, B, C); Simple circuits including: bias, decoupling, feedback and stabilisation; Multistage circuit principles: cascades, push-pull, oscillators, multivibrators, flip-flop circuits.	—	—	2	—

	LEVEL			
	A	B1	B2	B3
4.1.3 *Integrated Circuits* (a) Description and operation of logic circuits and linear circuits/operational amplifiers;	—	1	—	1
(b) Description and operation of logic circuits and linear circuits; Introduction to operation and function of an operational amplifier used as: integrator, differentiator, voltage follower, comparator; Operation and amplifier stages connecting methods: resistive capacitive, inductive (transformer), inductive resistive (IR), direct; Advantages and disadvantages of positive and negative feedback.	—	—	2	—
4.2 **Printed Circuit Boards** Description and use of printed circuit boards.	—	1	2	—
4.3 **Servomechanisms**				
(a) Understanding of the following terms: Open and closed loop systems, feedback, follow up, analogue transducers; Principles of operation and use of the following synchro system components/features: resolvers, differential, control and torque, transformers, inductance and capacitance transmitters;	—	1	—	—
(b) Understanding of the following terms: Open and closed loop, follow up, servomechanism, analogue, transducer, null, damping, feedback, deadband; Construction operation and use of the following synchro system components: resolvers, differential, control and torque, E and I transformers, inductance transmitters, capacitance transmitters, synchronous transmitters; Servomechanism defects, reversal of synchro leads, hunting.	—	—	2	—

MODULE 5. DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS

	LEVEL				
	A	B1-1 B1-3	B1-2 B1-4	B2	B3
5.1 **Electronic Instrument Systems** Typical systems arrangements and cockpit layout of electronic instrument systems.	1	2	2	3	1
5.2 **Numbering Systems** Numbering systems: binary, octal and hexadecimal; Demonstration of conversions between the decimal and binary, octal and hexadecimal systems and vice versa.	—	1	—	2	—
5.3 **Data Conversion** Analogue Data, Digital Data; Operation and application of analogue to digital, and digital to analogue converters, inputs and outputs, limitations of various types.	—	1	—	2	—
5.4 **Data Buses** Operation of data buses in aircraft systems, including knowledge of ARINC and other specifications. Aircraft Network/Ethernet.	—	2	—	2	—
5.5 **Logic Circuits** (a) Identification of common logic gate symbols, tables and equivalent circuits; Applications used for aircraft systems, schematic diagrams.	—	2	—	2	1
(b) Interpretation of logic diagrams.	—	—	—	2	—
5.6 **Basic Computer Structure** (a) Computer terminology (including bit, byte, software, hardware, CPU, IC, and various memory devices such as RAM, ROM, PROM); Computer technology (as applied in aircraft systems).	1	2	—	—	—
(b) Computer related terminology; Operation, layout and interface of the major components in a micro computer including their associated bus systems; Information contained in single and multi-address instruction words; Memory associated terms; Operation of typical memory devices; Operation, advantages and disadvantages of the various data storage systems.	—	—	—	2	—
5.7 **Microprocessors** Functions performed and overall operation of a microprocessor; Basic operation of each of the following microprocessor elements: control and processing unit, clock, register, arithmetic logic unit.	—	—	—	2	—

	LEVEL				
	A	B1-1 B1-3	B1-2 B1-4	B2	B3
5.8 **Integrated Circuits** Operation and use of encoders and decoders; Function of encoder types; Uses of medium, large and very large scale integration.	—	—	—	2	—
5.9 **Multiplexing** Operation, application and identification in logic diagrams of multiplexers and demultiplexers.	—	—	—	2	—
5.10 **Fibre Optics** Advantages and disadvantages of fibre optic data transmission over electrical wire propagation; Fibre optic data bus; Fibre optic related terms; Terminations; Couplers, control terminals, remote terminals; Application of fibre optics in aircraft systems.	—	1	1	2	—
5.11 **Electronic Displays** Principles of operation of common types of displays used in modern aircraft, including Cathode Ray Tubes, Light Emitting Diodes and Liquid Crystal Display.	—	2	1	2	1
5.12 **Electrostatic Sensitive Devices** Special handling of components sensitive to electrostatic discharges; Awareness of risks and possible damage, component and personnel anti-static protection devices.	1	2	2	2	1
5.13 **Software Management Control** Awareness of restrictions, airworthiness requirements and possible catastrophic effects of unapproved changes to software programmes.	—	2	1	2	1
5.14 **Electromagnetic Environment** Influence of the following phenomena on maintenance practices for electronic system: EMC-Electromagnetic Compatibility EMI-Electromagnetic Interference HIRF-High Intensity Radiated Field Lightning/lightning protection.	—	2	2	2	1

	LEVEL				
	A	B1-1 B1-3	B1-2 B1-4	B2	B3
5.15 **Typical Electronic/Digital Aircraft Systems** General arrangement of typical electronic/digital aircraft systems and associated BITE (Built In Test Equipment) such as: (a) *For B1 and B2 only:* ACARS-ARINC Communication and Addressing and Reporting System EICAS-Engine Indication and Crew Alerting System FBW-Fly-by-Wire FMS-Flight Management System IRS-Inertial Reference System; (b) *For B1, B2 and B3:* ECAM-Electronic Centralised Aircraft Monitoring EFIS-Electronic Flight Instrument System GPS-Global Positioning System TCAS-Traffic Alert Collision Avoidance System Integrated Modular Avionics Cabin Systems Information Systems.	—	2	2	2	1

MODULE 6. MATERIALS AND HARDWARE

	LEVEL			
	A	B1	B2	B3
6.1 **Aircraft Materials — Ferrous**				
(a) Characteristics, properties and identification of common alloy steels used in aircraft; Heat treatment and application of alloy steels.	1	2	1	2
(b) Testing of ferrous materials for hardness, tensile strength, fatigue strength and impact resistance.	—	1	1	1
6.2 **Aircraft Materials — Non-Ferrous**				
(a) Characteristics, properties and identification of common non-ferrous materials used in aircraft; Heat treatment and application of non-ferrous materials;	1	2	1	2
(b) Testing of non-ferrous material for hardness, tensile strength, fatigue strength and impact resistance.	—	1	1	1
6.3 **Aircraft Materials — Composite and Non-Metallic**				
6.3.1 *Composite and non-metallic other than wood and fabric*				
(a) Characteristics, properties and identification of common composite and non-metallic materials, other than wood, used in aircraft; Sealant and bonding agents;	1	2	2	2
(b) The detection of defects/deterioration in composite and non-metallic material; Repair of composite and non-metallic material.	1	2	—	2
6.3.2 *Wooden structures* Construction methods of wooden airframe structures; Characteristics, properties and types of wood and glue used in aeroplanes; Preservation and maintenance of wooden structure; Types of defects in wood material and wooden structures; The detection of defects in wooden structure; Repair of wooden structure.	1	2	—	2

	LEVEL			
	A	B1	B2	B3
6.3.3 *Fabric covering* Characteristics, properties and types of fabrics used in aeroplanes; Inspections methods for fabric; Types of defects in fabric; Repair of fabric covering.	1	2	—	2
6.4 **Corrosion**				
(a) Chemical fundamentals; Formation by, galvanic action process, microbiological, stress;	1	1	1	1
(b) Types of corrosion and their identification; Causes of corrosion; Material types, susceptibility to corrosion.	2	3	2	2
6.5 **Fasteners**				
6.5.1 *Screw threads* Screw nomenclature; Thread forms, dimensions and tolerances for standard threads used in aircraft; Measuring screw threads.	2	2	2	2
6.5.2 *Bolts, studs and screws* Bolt types: specification, identification and marking of aircraft bolts, international standards; Nuts: self locking, anchor, standard types; Machine screws: aircraft specifications; Studs: types and uses, insertion and removal; Self tapping screws, dowels.	2	2	2	2
6.5.3 *Locking devices* Tab and spring washers, locking plates, split pins, pal-nuts, wire locking, quick release fasteners, keys, circlips, cotter pins.	2	2	2	2
6.5.4 *Aircraft rivets* Types of solid and blind rivets: specifications and identification, heat treatment.	1	2	1	2

	LEVEL			
	A	B1	B2	B3
6.6 **Pipes and Unions**				
(a) Identification of, and types of rigid and flexible pipes and their connectors used in aircraft;	2	2	2	2
(b) Standard unions for aircraft hydraulic, fuel, oil, pneumatic and air system pipes.	2	2	1	2
6.7 **Springs**	—	2	1	1
Types of springs, materials, characteristics and applications.				
6.8 **Bearings**				
Purpose of bearings, loads, material, construction;	1	2	2	1
Types of bearings and their application.				
6.9 **Transmissions**				
Gear types and their application;	1	2	2	1
Gear ratios, reduction and multiplication gear systems, driven and driving gears, idler gears, mesh patterns;				
Belts and pulleys, chains and sprockets.				
6.10 **Control Cables**				
Types of cables;				
End fittings, turnbuckles and compensation devices;	1	2	1	2
Pulleys and cable system components;				
Bowden cables;				
Aircraft flexible control systems.				
6.11 **Electrical Cables and Connectors**				
Cable types, construction and characteristics;				
High tension and co-axial cables;	1	2	2	2
Crimping;				
Connector types, pins, plugs, sockets, insulators, current and voltage rating, coupling, identification codes.				

MODULE 7A. MAINTENANCE PRACTICES

Note: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 7B.

	LEVEL		
	A	B1	B2
7.1 **Safety Precautions-Aircraft and Workshop** Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.	3	3	3
7.2 **Workshop Practices** Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.	3	3	3
7.3 **Tools** Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods. Operation, function and use of electrical general test equipment.	3	3	3
7.4 **Avionic General Test Equipment** Operation, function and use of avionic general test equipment.	—	2	3
7.5 **Engineering Drawings, Diagrams and Standards** Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presen–tation; Specification 100 of the Air Transport Association (ATA) of America;	1	2	2

	LEVEL		
	A	B1	B2
Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.			
7.6 **Fits and Clearances** Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.	1	2	1
7.7 **Electrical Wiring Interconnection System (EWIS)** Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Identification of wire types, their inspection criteria and damage tolerance. Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding; EWIS installations, inspection, repair, maintenance and cleanliness standards.	1	3	3
7.8 **Riveting** Riveted joints, rivet spacing and pitch; Tools used for riveting and dimpling; Inspection of riveted joints.	1	2	—
7.9 **Pipes and Hoses** Bending and belling/flaring aircraft pipes; Inspection and testing of aircraft pipes and hoses; Installation and clamping of pipes.	1	2	—

	LEVEL		
	A	B1	B2
7.10 **Springs** Inspection and testing of springs.	1	2	—
7.11 **Bearings** Testing, cleaning and inspection of bearings; Lubrication requirements of bearings; Defects in bearings and their causes.	1	2	—
7.12 **Transmissions** Inspection of gears, backlash; Inspection of belts and pulleys, chains and sprockets; Inspection of screw jacks, lever devices, push-pull rod systems.	1	2	—
7.13 **Control Cables** Swaging of end fittings; Inspection and testing of control cables; Bowden cables; aircraft flexible control systems.	1	2	—
7.14 **Material handling** 7.14.1 *Sheet Metal* Marking out and calculation of bend allowance; Sheet metal working, including bending and forming; Inspection of sheet metal work.	—	2	—
7.14.2 *Composite and non-metallic* Bonding practices; Environmental conditions; Inspection methods.	—	2	—
7.15 **Welding, Brazing, Soldering and Bonding** (a) Soldering methods; inspection of soldered joints.	—	2	2

	LEVEL		
	A	B1	B2
(b) Welding and brazing methods; Inspection of welded and brazed joints; Bonding methods and inspection of bonded joints.	—	2	—
7.16 **Aircraft Weight and Balance**			
(a) Centre of Gravity/Balance limits calculation: use of relevant documents;	—	2	2
(b) Preparation of aircraft for weighing; Aircraft weighing.	—	2	—
7.17 **Aircraft Handling and Storage**	2	2	2
Aircraft taxiing/towing and associated safety precautions;			
Aircraft jacking, chocking, securing and associated safety precautions;			
Aircraft storage methods;			
Refuelling/defuelling procedures;			
De-icing/anti-icing procedures;			
Electrical, hydraulic and pneumatic ground supplies.			
Effects of environmental conditions on aircraft handling and operation.			
7.18 **Disassembly, Inspection, Repair and Assembly Techniques**			
(a) Types of defects and visual inspection techniques; Corrosion removal, assessment and reprotection;	2	3	3
(b) General repair methods, Structural Repair Manual; Ageing, fatigue and corrosion control programmes;	—	2	—
(c) Non-destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic and boroscope methods;	—	2	1

	LEVEL		
	A	B1	B2
(d) Disassembly and re-assembly techniques;	2	2	2
(e) Trouble shooting techniques.	—	2	2
7.19 **Abnormal Events**			
(a) Inspections following lightning strikes and HIRF penetration;	2	2	2
(b) Inspections following abnormal events such as heavy landings and flight through turbulence.	2	2	—
7.20 **Maintenance Procedures**	1	2	2
Maintenance planning;			
Modification procedures;			
Stores procedures;			
Certification/release procedures;			
Interface with aircraft operation;			
Maintenance Inspection/Quality Control/Quality Assurance;			
Additional maintenance procedures;			
Control of life limited components.			

MODULE 7B. MAINTENANCE PRACTICES

Note: The scope of this module shall reflect the technology of aeroplanes relevant to the B3 category.

	LEVEL
	B3
7.1 **Safety Precautions-Aircraft and Workshop** Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.	3
7.2 **Workshop Practices** Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.	3
7.3 **Tools** Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods; Operation, function and use of electrical general test equipment.	3
7.4 **Avionic General Test Equipment** Operation, function and use of avionic general test equipment.	—
7.5 **Engineering Drawings, Diagrams and Standards** Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.	2

	LEVEL
	B3
7.6 **Fits and Clearances**	2
Drill sizes for bolt holes, classes of fits;	
Common system of fits and clearances;	
Schedule of fits and clearances for aircraft and engines;	
Limits for bow, twist and wear;	
Standard methods for checking shafts, bearings and other parts.	
7.7 **Electrical Cables and Connectors**	2
Continuity, insulation and bonding techniques and testing;	
Use of crimp tools: hand and hydraulic operated;	
Testing of crimp joints;	
Connector pin removal and insertion;	
Co-axial cables: testing and installation precautions;	
Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.	
7.8 **Riveting**	2
Riveted joints, rivet spacing and pitch;	
Tools used for riveting and dimpling;	
Inspection of riveted joints.	
7.9 **Pipes and Hoses**	2
Bending and belling/flaring aircraft pipes;	
Inspection and testing of aircraft pipes and hoses;	
Installation and clamping of pipes.	
7.10 **Springs**	1
Inspection and testing of springs.	
7.11 **Bearings**	2
Testing, cleaning and inspection of bearings;	
Lubrication requirements of bearings;	
Defects in bearings and their causes.	
7.12 **Transmissions**	2
Inspection of gears, backlash;	
Inspection of belts and pulleys, chains and sprockets;	
Inspection of screw jacks, lever devices, push-pull rod systems.	

	LEVEL
	B3
7.13 **Control Cables**	2
Swaging of end fittings;	
Inspection and testing of control cables;	
Bowden cables; aircraft flexible control systems.	
7.14 **Material handling**	
7.14.1 *Sheet Metal*	2
Marking out and calculation of bend allowance;	
Sheet metal working, including bending and forming;	
Inspection of sheet metal work.	
7.14.2 *Composite and non-metallic*	2
Bonding practices;	
Environmental conditions;	
Inspection methods	
7.15 **Welding, Brazing, Soldering and Bonding**	
(a) Soldering methods; inspection of soldered joints;	2
(b) Welding and brazing methods; Inspection of welded and brazed joints; Bonding methods and inspection of bonded joints.	2
7.16 **Aircraft Weight and Balance**	
(a) Centre of Gravity/Balance limits calculation: use of relevant documents;	2
(b) Preparation of aircraft for weighing; Aircraft weighing.	2
7.17 **Aircraft Handling and Storage**	2
Aircraft taxiing/towing and associated safety precautions;	
Aircraft jacking, chocking, securing and associated safety precautions;	
Aircraft storage methods;	
Refuelling/defuelling procedures;	
De-icing/anti-icing procedures;	
Electrical, hydraulic and pneumatic ground supplies;	
Effects of environmental conditions on aircraft handling and operation.	

	LEVEL
	B3
7.18 **Disassembly, Inspection, Repair and Assembly Techniques**	
(a) Types of defects and visual inspection techniques; Corrosion removal, assessment and reprotection;	3
(b) General repair methods, Structural Repair Manual; Ageing, fatigue and corrosion control programmes;	2
(c) Non-destructive inspection techniques including, penetrant, radio-graphic, eddy current, ultrasonic and boroscope methods;	2
(d) Disassembly and re-assembly techniques;	2
(e) Trouble shooting techniques.	2
7.19 **Abnormal Events**	
(a) Inspections following lightning strikes and HIRF penetration.	2
(b) Inspections following abnormal events such as heavy landings and flight through turbulence.	2
7.20 **Maintenance Procedures**	2
Maintenance planning;	
Modification procedures;	
Stores procedures;	
Certification/release procedures;	
Interface with aircraft operation;	
Maintenance Inspection/Quality Control/Quality Assurance;	
Additional maintenance procedures;	
Control of life limited components.	

MODULE 8. BASIC AERODYNAMICS

	LEVEL			
	A	B1	B2	B3
8.1 **Physics of the Atmosphere** International Standard Atmosphere (ISA), application to aerodynamics.	1	2	2	1
8.2 **Aerodynamics** Airflow around a body; Boundary layer, laminar and turbulent flow, free stream flow, relative airflow, upwash and downwash, vortices, stagnation; The terms: camber, chord, mean aerodynamic chord, profile (parasite) drag, induced drag, centre of pressure, angle of attack, wash in and wash out, fineness ratio, wing shape and aspect ratio; Thrust, Weight, Aerodynamic Resultant; Generation of Lift and Drag: Angle of Attack, Lift coefficient, Drag coefficient, polar curve, stall; Aerofoil contamination including ice, snow, frost.	1	2	2	1
8.3 **Theory of Flight** Relationship between lift, weight, thrust and drag; Glide ratio; Steady state flights, performance; Theory of the turn; Influence of load factor: stall, flight envelope and structural limitations; Lift augmentation.	1	2	2	1
8.4 **Flight Stability and Dynamics** Longitudinal, lateral and directional stability (active and passive).	1	2	2	1

MODULE 9A. HUMAN FACTORS

Note: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 9B.

	LEVEL		
	A	B1	B2
9.1 **General**	1	2	2
The need to take human factors into account;			
Incidents attributable to human factors/human error;			
'Murphy's' law.			
9.2 **Human Performance and Limitations**	1	2	2
Vision;			
Hearing;			
Information processing;			
Attention and perception;			
Memory;			
Claustrophobia and physical access.			
9.3 **Social Psychology**	1	1	1
Responsibility: individual and group;			
Motivation and de-motivation;			
Peer pressure;			
'Culture' issues;			
Team working;			
Management, supervision and leadership.			
9.4 **Factors Affecting Performance**	2	2	2
Fitness/health;			
Stress: domestic and work related;			
Time pressure and deadlines;			
Workload: overload and underload;			
Sleep and fatigue, shiftwork;			
Alcohol, medication, drug abuse.			

	LEVEL		
	A	B1	B2
9.5 **Physical Environment** Noise and fumes; Illumination; Climate and temperature; Motion and vibration; Working environment.	1	1	1
9.6 **Tasks** Physical work; Repetitive tasks; Visual inspection; Complex systems.	1	1	1
9.7 **Communication** Within and between teams; Work logging and recording; Keeping up to date, currency; Dissemination of information.	2	2	2
9.8 **Human Error** Error models and theories; Types of error in maintenance tasks; Implications of errors (i.e. accidents); Avoiding and managing errors.	1	2	2
9.9 **Hazards in the Workplace** Recognising and avoiding hazards; Dealing with emergencies.	1	2	2

MODULE 9B. HUMAN FACTORS

Note: The scope of this module shall reflect the less demanding environment of maintenance for B3 licence holders.

	LEVEL
	B3
9.1 **General** The need to take human factors into account; Incidents attributable to human factors/human error; 'Murphy's' law.	2
9.2 **Human Performance and Limitations** Vision; Hearing; Information processing; Attention and perception; Memory; Claustrophobia and physical access.	2
9.3 **Social Psychology** Responsibility: individual and group; Motivation and de-motivation; Peer pressure; 'Culture' issues; Team working; Management, supervision and leadership.	1
9.4 **Factors Affecting Performance** Fitness/health; Stress: domestic and work related; Time pressure and deadlines; Workload: overload and underload; Sleep and fatigue, shiftwork; Alcohol, medication, drug abuse.	2
9.5 **Physical Environment** Noise and fumes; Illumination; Climate and temperature; Motion and vibration; Working environment.	1

	LEVEL
	B3
9.6 **Tasks**	1
Physical work;	
Repetitive tasks;	
Visual inspection;	
Complex systems.	
9.7 **Communication**	2
Within and between teams;	
Work logging and recording;	
Keeping up to date, currency;	
Dissemination of information.	
9.8 **Human Error**	2
Error models and theories;	
Types of error in maintenance tasks;	
Implications of errors (i.e. accidents);	
Avoiding and managing errors.	
9.9 **Hazards in the Workplace**	2
Recognising and avoiding hazards;	
Dealing with emergencies.	

MODULE 10. AVIATION LEGISLATION

	LEVEL			
	A	B1	B2	B3
10.1 **Regulatory Framework** Role of the International Civil Aviation Organisation; Role of the CCAA; Relationship between the various Annexes (Parts) such as , Part-5, Part-6, Part-2, Part-3and Part 9, Part 9	1	1	1	1
10.2 **Certifying Staff — Maintenance** Detailed understanding of Part-3	2	2	2	2
10.3 **Approved Maintenance Organisations** Detailed understanding of Part-6 and Part-5.	2	2	2	2
10.4 **Air operations** General understanding of PART 8 & 9 Air Operators Certificates; Operator's responsibilities, in particular regarding continuing airworthiness and maintenance; Aircraft Maintenance Programme; MEL//CDL; Documents to be carried on board; Aircraft placarding (markings).	1	1	1	1
10.5 **Certification of aircraft, parts and appliances**				
(a) *General* General understanding of Part 5 and the CCAA certification specifications.	—	1	1	1
(b) *Documents* Certificate of Airworthiness; restricted certificates of airworthiness and permit to fly; Certificate of Registration; Noise Certificate; Weight Schedule; Radio Station Licence and Approval.	—	2	2	2

	LEVEL			
	A	B1	B2	B3
10.6 **Continuing airworthiness** Detailed understanding of Part-5 provisions related to continuing airworthiness. Detailed understanding of Part-M.	2	2	2	2
10.7 **Applicable National and International Requirements for** (a) Maintenance Programmes, Maintenance checks and inspections; Airworthiness Directives; Service Bulletins, manufacturers service information; Modifications and repairs; Maintenance documentation: maintenance manuals, structural repair manual, illustrated parts catalogue, etc.; *Only for A to B2 licences:* Master Minimum Equipment Lists, Minimum Equipment List, Dispatch Deviation Lists;	1	2	2	2
(b) Continuing airworthiness; Minimum equipment requirements — Test flights;	—	1	1	1

MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

	LEVEL	
	A1	B1.1
11.1 **Theory of Flight**		
11.1.1. *Aeroplane Aerodynamics and Flight Controls*	1	2
Operation and effect of: — roll control: ailerons and spoilers, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, spoilers, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.		
11.1.2. *High Speed Flight*	1	2
Speed of sound, subsonic flight, transonic flight, supersonic flight; Mach number, critical Mach number, compressibility buffet, shock wave, aerodynamic heating, area rule; Factors affecting airflow in engine intakes of high speed aircraft; Effects of sweepback on critical Mach number.		
11.2 **Airframe Structures — General Concepts**		
(a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding.	2	2

	LEVEL	
	A1	B1.1
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	1	2
11.3 **Airframe Structures — Aeroplanes**		
11.3.1 *Fuselage (ATA 52/53/56)* Construction and pressurisation sealing; Wing, stabiliser, pylon and undercarriage attachments; Seat installation and cargo loading system; Doors and emergency exits: construction, mechanisms, operation and safety devices; Windows and windscreen construction and mechanisms.	1	2
11.3.2 *Wings (ATA 57)* Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	1	2
11.3.3 *Stabilisers (ATA 55)* Construction; Control surface attachment.	1	2
11.3.4 *Flight Control Surfaces (ATA 55/57)* Construction and attachment; Balancing — mass and aerodynamic.	1	2
11.3.5 *Nacelles/Pylons (ATA 54)* Nacelles/Pylons: — Construction, — Firewalls, — Engine mounts.	1	2
11.4 **Air Conditioning and Cabin Pressurisation (ATA 21)**		
11.4.1 *Air supply* Sources of air supply including engine bleed, APU and ground cart.	1	2

	LEVEL	
	A1	B1.1
11.4.2 *Air Conditioning* Air conditioning systems; Air cycle and vapour cycle machines; Distribution systems; Flow, temperature and humidity control system.	1	3
11.4.3 *Pressurisation* Pressurisation systems; Control and indication including control and safety valves; Cabin pressure controllers.	1	3
11.4.4 *Safety and warning devices* Protection and warning devices.	1	3
11.5 **Instruments/Avionic Systems** 11.5.1 *Instrument Systems (ATA 31)* Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.	1	2
11.5.2 *Avionic Systems* Fundamentals of system lay-outs and operation of: — Auto Flight (ATA 22), — Communications (ATA 23), — Navigation Systems (ATA 34).	1	1

	LEVEL	
	A1	B1.1
11.6 **Electrical Power (ATA 24)**		
Batteries Installation and Operation;	1	3
DC power generation;		
AC power generation;		
Emergency power generation;		
Voltage regulation;		
Power distribution;		
Inverters, transformers, rectifiers;		
Circuit protection;		
External/Ground power.		
11.7 **Equipment and Furnishings (ATA 25)**		
(a) Emergency equipment requirements;		
Seats, harnesses and belts.	2	2
(b) Cabin lay-out;		
Equipment lay-out;	1	1
Cabin Furnishing installation;		
Cabin entertainment equipment;		
Galley installation;		
Cargo handling and retention equipment;		
Airstairs.		
11.8 **Fire Protection (ATA 26)**		
(a) Fire and smoke detection and warning systems;	1	3
Fire extinguishing systems;		
System tests;		
(b) Portable fire extinguisher.	1	1

	LEVEL	
	A1	B1.1
11.9 **Flight Controls (ATA 27)** Primary controls: aileron, elevator, rudder, spoiler; Trim control; Active load control; High lift devices; Lift dump, speed brakes; System operation: manual, hydraulic, pneumatic, electrical, fly-by-wire; Artificial feel, Yaw damper, Mach trim, rudder limiter, gust lock systems; Balancing and rigging; Stall protection/warning system.	1	3
11.10 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Dumping, venting and draining; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling; Longitudinal balance fuel systems.	1	3
11.11 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical, pneumatic; Emergency pressure generation; Filters; Pressure Control; Power distribution; Indication and warning systems; Interface with other systems	1	3

	LEVEL	
	A1	B1.1
11.12 **Ice and Rain Protection (ATA 30)**	1	3
Ice formation, classification and detection;		
Anti-icing systems: electrical, hot air and chemical;		
De-icing systems: electrical, hot air, pneumatic and chemical;		
Rain repellent;		
Probe and drain heating;		
Wiper systems.		
11.13 **Landing Gear (ATA 32)**	2	3
Construction, shock absorbing;		
Extension and retraction systems: normal and emergency;		
Indications and warning;		
Wheels, brakes, antiskid and autobraking;		
Tyres;		
Steering;		
Air-ground sensing.		
11.14 **Lights (ATA 33)**	2	3
External: navigation, anti collision, landing, taxiing, ice;		
Internal: cabin, cockpit, cargo;		
Emergency.		
11.15 **Oxygen (ATA 35)**	1	3
System lay-out: cockpit, cabin;		
Sources, storage, charging and distribution;		
Supply regulation;		
Indications and warnings.		
11.16 **Pneumatic/Vacuum (ATA 36)**	1	3
System lay-out;		
Sources: engine/APU, compressors, reservoirs, ground supply;		
Pressure control;		
Distribution;		
Indications and warnings;		
Interfaces with other systems.		

	LEVEL	
	A1	B1.1
11.17 **Water/Waste (ATA 38)** Water system lay-out, supply, distribution, servicing and draining; Toilet system lay-out, flushing and servicing; Corrosion aspects.	2	3
11.18 **On Board Maintenance Systems (ATA 45)** Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).	1	2
11.19 **Integrated Modular Avionics (ATA42)** Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others: Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc. Core System; Network Components.	1	2
11.20 **Cabin Systems (ATA44)** The units and components which furnish a means of entertaining the passengers and providing communication within the aircraft (Cabin Inter–communication Data System) and between the aircraft cabin and ground stations (Cabin Network Service). Includes voice, data, music and video transmissions. The Cabin Intercommunication Data System provides an interface between cockpit/cabin crew and cabin systems. These systems support data exchange of the different related LRU's and they are typically operated via Flight Attendant Panels. The Cabin Network Service typically consists on a server, typically inter–facing with, among others, the following systems: — Data/Radio Communication, In-Flight Entertainment System. The Cabin Network Service may host functions such as: — Access to pre-departure/departure reports, — E-mail/intranet/Internet access, — Passenger database; Cabin Core System; In-flight Entertainment System; External Communication System; Cabin Mass Memory System; Cabin Monitoring System; Miscellaneous Cabin System.	1	2

	LEVEL	
	A1	B1.1
11.21 **Information Systems (ATA46)** The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display. Typical examples include Air Traffic and Information Management Systems and Network Server Systems Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.	1	2

MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Note 1: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 11C.

Note 2: The scope of this Module shall reflect the technology of aeroplanes pertinent to the A2 and B1.2 subcategories.

	LEVEL	
	A2	B1.2
11.1 **Theory of Flight**		
11.1.1. *Aeroplane Aerodynamics and Flight Controls*	1	2
Operation and effect of: — roll control: ailerons and spoilers, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, spoilers, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.		
11.1.2. *High Speed Flight — N/A*	—	—
11.2 **Airframe Structures — General Concepts**		
(a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding.	2	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	1	2

	LEVEL	
	A2	B1.2
11.3 **Airframe Structures — Aeroplanes**	1	2
11.3.1 *Fuselage (ATA 52/53/56)*		
Construction and pressurisation sealing;		
Wing, tail-plane, pylon and undercarriage attachments;		
Seat installation;		
Doors and emergency exits: construction and operation;		
Windows and windscreen attachment.		
11.3.2 *Wings (ATA 57)*	1	2
Construction;		
Fuel storage;		
Landing gear, pylon, control surface and high lift/drag attachments.		
11.3.3 *Stabilisers (ATA 55)*	1	2
Construction;		
Control surface attachment.		
11.3.4 *Flight Control Surfaces (ATA 55/57)*	1	2
Construction and attachment;		
Balancing — mass and aerodynamic.		
11.3.5 *Nacelles/Pylons (ATA 54)*	1	2
Nacelles/Pylons: — Construction, — Firewalls, — Engine mounts.		
11.4 **Air Conditioning and Cabin Pressurisation (ATA 21)**	1	3
Pressurisation and air conditioning systems;		
Cabin pressure controllers, protection and warning devices;		
Heating systems.		

	LEVEL	
	A2	B1.2
11.5 **Instruments/Avionic Systems**		
11.5.1 *Instrument Systems (ATA 31)*	1	2
Pitot static: altimeter, air speed indicator, vertical speed indicator;		
Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;		
Compasses: direct reading, remote reading;		
Angle of attack indication, stall warning systems;		
Glass cockpit;		
Other aircraft system indication.		
11.5.2 *Avionic Systems*	1	1
Fundamentals of system lay-outs and operation of: — Auto Flight (ATA 22), — Communications (ATA 23), — Navigation Systems (ATA 34).		
11.6 **Electrical Power (ATA 24)**	1	3
Batteries Installation and Operation;		
DC power generation;		
Voltage regulation;		
Power distribution;		
Circuit protection;		
Inverters, transformers.		
11.7 **Equipment and Furnishings (ATA 25)**		
(a) Emergency equipment requirements; Seats, harnesses and belts;	2	2
(b) Cabin lay-out; Equipment lay-out; Cabin Furnishing installation; Cabin entertainment equipment; Galley installation; Cargo handling and retention equipment; Airstairs.	1	1
11.8 **Fire Protection (ATA 26)**		
(a) Fire and smoke detection and warning systems; Fire extinguishing systems; System tests;	1	3
(b) Portable fire extinguisher.	1	3

	LEVEL	
	A2	B1.2
11.9 **Flight Controls (ATA 27)** Primary controls: aileron, elevator, rudder; Trim tabs; High lift devices; System operation: manual; Gust locks; Balancing and rigging; Stall warning system.	1	3
11.10 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	1	3
11.11 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical; Filters; Pressure Control; Power distribution; Indication and warning systems.	1	3
11.12 **Ice and Rain Protection (ATA 30)** Ice formation, classification and detection; De-icing systems: electrical, hot air, pneumatic and chemical; Probe and drain heating; Wiper systems.	1	3

	LEVEL	
	A2	B1.2
11.13 **Landing Gear (ATA 32)** Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, brakes, antiskid and autobraking; Tyres; Steering; Air-ground sensing.	2	3
11.14 **Lights (ATA 33)** External: navigation, anti collision, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	2	3
11.15 **Oxygen (ATA 35)** System lay-out: cockpit, cabin; Sources, storage, charging and distribution; Supply regulation; Indications and warnings.	1	3
11.16 **Pneumatic/Vacuum (ATA 36)** System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	1	3
11.17 **Water/Waste (ATA 38)** Water system lay-out, supply, distribution, servicing and draining; Toilet system lay-out, flushing and servicing; Corrosion aspects.	2	3

MODULE 11C. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Note: The scope of this module shall reflect the technology of aeroplanes pertinent to the B3 category.

	LEVEL
	B3
11.1 **Theory of Flight**	
Aeroplane Aerodynamics and Flight Controls	1
Operation and effect of: — roll control: ailerons, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and anti-balance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.	
11.2 **Airframe Structures — General Concepts**	
(a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding;	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	2
11.3 **Airframe Structures — Aeroplanes**	
11.3.1 *Fuselage (ATA 52/53/56)* Construction;	1

	LEVEL
	B3
Wing, tail-plane, pylon and undercarriage attachments; Seat installation; Doors and emergency exits: construction and operation; Window and windscreen attachment.	
11.3.2 *Wings (ATA 57)* Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	1
11.3.3 *Stabilisers (ATA 55)* Construction; Control surface attachment.	1
11.3.4 *Flight Control Surfaces (ATA 55/57)* Construction and attachment; Balancing — mass and aerodynamic.	1
11.3.5 *Nacelles/Pylons (ATA 54)* Nacelles/Pylons: — Construction, — Firewalls, — Engine mounts.	1
11.4 **Air Conditioning (ATA 21)**	
Heating and ventilation systems.	1
11.5 **Instruments/Avionic Systems**	
11.5.1 *Instrument Systems (ATA 31)* Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.	
11.5.2 *Avionic Systems* Fundamentals of system lay-outs and operation of: — Auto Flight (ATA 22), — Communications (ATA 23), — Navigation Systems (ATA 34).	1

	LEVEL
	B3
11.6 **Electrical Power (ATA 24)** Batteries Installation and Operation; DC power generation; Voltage regulation; Power distribution; Circuit protection; Inverters, transformers.	2
11.7 **Equipment and Furnishings (ATA 25)** Emergency equipment requirements; Seats, harnesses and belts.	2
11.8 **Fire Protection (ATA 26)** Portable fire extinguisher.	2
11.9 **Flight Controls (ATA 27)** Primary controls: aileron, elevator, rudder; Trim tabs; High lift devices; System operation: manual; Gust locks; Balancing and rigging; Stall warning system.	3
11.10 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	2
11.11 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical; Filters; Pressure Control; Power distribution; Indication and warning systems.	2
11.12 **Ice and Rain Protection (ATA 30)** Ice formation, classification and detection; De-icing systems: electrical, hot air, pneumatic and chemical; Probe and drain heating; Wiper systems.	1

	LEVEL
	B3
11.13 **Landing Gear (ATA 32)**	2
Construction, shock absorbing;	
Extension and retraction systems: normal and emergency;	
Indications and warning;	
Wheels, brakes, antiskid and autobraking;	
Tyres;	
Steering.	
11.14 **Lights (ATA 33)**	2
External: navigation, anti collision, landing, taxiing, ice;	
Internal: cabin, cockpit, cargo;	
Emergency.	
11.15 **Oxygen (ATA 35)**	2
System lay-out: cockpit, cabin;	
Sources, storage, charging and distribution;	
Supply regulation;	
Indications and warnings.	
11.16 **Pneumatic/Vacuum (ATA 36)**	2
System lay-out;	
Sources: engine/APU, compressors, reservoirs, ground supply;	
Pressure and vacuum pumps	
Pressure control;	
Distribution;	
Indications and warnings;	
Interfaces with other systems.	

MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS

	LEVEL	
	A3 A4	B1.3 B1.4
12.1 **Theory of Flight — Rotary Wing Aerodynamics** Terminology; Effects of gyroscopic precession;Torque reaction and directional control; Dissymmetry of lift, Blade tip stall; Translating tendency and its correction; Coriolis effect and compensation; Vortex ring state, power settling, overpitching; Auto-rotation; Ground effect.	1	2
12.2 **Flight Control Systems** Cyclic control; Collective control; Swashplate; Yaw control: Anti-Torque Control, Tail rotor, bleed air; Main Rotor Head: Design and Operation features; Blade Dampers: Function and construction; Rotor Blades: Main and tail rotor blade construction and attachment; Trim control, fixed and adjustable stabilisers; System operation: manual, hydraulic, electrical and fly-by-wire; Artificial feel; Balancing and rigging.	2	3
12.3 **Blade Tracking and Vibration Analysis** Rotor alignment; Main and tail rotor tracking; Static and dynamic balancing; Vibration types, vibration reduction methods; Ground resonance.	1	3
12.4 **Transmission** Gear boxes, main and tail rotors; Clutches, free wheel units and rotor brake;	1	3

	LEVEL	
	A3 A4	B1.3 B1.4
12.5 **Airframe Structures**		
(a) Airworthiness requirements for structural strength;	2	2
Structural classification, primary, secondary and tertiary;		
Fail safe, safe life, damage tolerance concepts;		
Zonal and station identification systems;		
Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue;		
Drains and ventilation provisions;		
System installation provisions;		
Lightning strike protection provision;		
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning and anti-corrosive protection.	1	2
Pylon, stabiliser and undercarriage attachments;		
Seat installation;		
Doors: construction, mechanisms, operation and safety devices;		
Windows and windscreen construction;		
Fuel storage;		
Firewalls;		
Engine mounts;		
Structure assembly techniques: riveting, bolting, bonding;		
Methods of surface protection, such as chromating, anodising, painting;		
Surface cleaning.		
Airframe symmetry: methods of alignment and symmetry checks.		
12.6 **Air Conditioning (ATA 21)**		
12.6.1 *Air supply*	1	2
Sources of air supply including engine bleed and ground cart.		
12.6.2 *Air conditioning*	1	3
Air conditioning systems;		
Distribution systems;		
Flow and temperature control systems;		
Protection and warning devices.		
12.7 **Instruments/Avionic Systems**		
12.7.1 *Instrument Systems (ATA 31)*	1	2
Pitot static: altimeter, air speed indicator, vertical speed indicator;		
Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;		

	LEVEL	
	A3 A4	B1.3 B1.4
Compasses: direct reading, remote reading; Vibration indicating systems — HUMS; Glass cockpit; Other aircraft system indication.		
12.7.2 *Avionic Systems*	1	1
Fundamentals of system layouts and operation of: Auto Flight (ATA 22); Communications (ATA 23); Navigation Systems (ATA 34).		
12.8 **Electrical Power (ATA 24)** Batteries Installation and Operation; DC power generation, AC power generation; Emergency power generation; Voltage regulation, Circuit protection. Power distribution; Inverters, transformers, rectifiers; External/Ground power.	1	3
12.9 **Equipment and Furnishings (ATA 25)** (a) Emergency equipment requirements; Seats, harnesses and belts; Lifting systems;	2	2
(b) Emergency flotation systems; Cabin lay-out, cargo retention; Equipment lay-out; Cabin Furnishing Installation.	1	1
12.10 **Fire Protection (ATA 26)** Fire and smoke detection and warning systems; Fire extinguishing systems; System tests.	1	3
12.11 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Dumping, venting and draining; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	1	3

	LEVEL	
	A3 A4	B1.3 B1.4
12.12 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical, pneumatic; Emergency pressure generation; Filters; Pressure Control; Power distribution; Indication and warning systems; Interface with other systems.	1	3
12.13 **Ice and Rain Protection (ATA 30)** Ice formation, classification and detection; Anti-icing and De-icing systems: electrical, hot air and chemical; Rain repellent and removal; Probe and drain heating; Wiper system.	1	3
12.14 **Landing Gear (ATA 32)** Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, Tyres, brakes; Steering; Air-ground sensing; Skids, floats.	2	3
12.15 **Lights (ATA 33)** External: navigation, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	2	3

	LEVEL	
	A3 A4	B1.3 B1.4
12.16 **Pneumatic/Vacuum (ATA 36)** System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	1	3
12.17 **Integrated Modular Avionics (ATA42)** Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others: Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc. Core System; Network Components.	1	2
12.18 **On Board Maintenance Systems (ATA45)** Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).	1	2
12.19 **Information Systems (ATA46)** The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display. Typical examples include Air Traffic and Information Management Systems and Network Server Systems. Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.	1	2

MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS

	LEVEL
	B2
13.1 **Theory of Flight**	
(a) *Aeroplane Aerodynamics and Flight Controls*	1
Operation and effect of: — roll control: ailerons and spoilers, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices: slots, slats, flaps; Drag inducing devices: spoilers, lift dumpers, speed brakes; Operation and effect of trim tabs, servo tabs, control surface bias;	
(b) *High Speed Flight*	1
Speed of sound, subsonic flight, transonic flight, supersonic flight; Mach number, critical Mach number;	
(c) *Rotary Wing Aerodynamics*	1
Terminology; Operation and effect of cyclic, collective and anti-torque controls.	
13.2 **Structures — General Concepts**	
(a) Fundamentals of structural systems;	1
(b) Zonal and station identification systems; Electrical bonding; Lightning strike protection provision.	2
13.3 **Autoflight (ATA 22)** Fundamentals of automatic flight control including working principles and current terminology; Command signal processing; Modes of operation: roll, pitch and yaw channels; Yaw dampers; Stability Augmentation System in helicopters; Automatic trim control; Autopilot navigation aids interface; Autothrottle systems; Automatic Landing Systems: principles and categories, modes of operation, approach, glideslope, land, go-around, system monitors and failure conditions.	3

	LEVEL
	B2
13.4 **Communication/Navigation (ATA 23/34)**	3
Fundamentals of radio wave propagation, antennas, transmission lines, communication, receiver and transmitter;	
Working principles of following systems: — Very High Frequency (VHF) communication, — High Frequency (HF) communication, — Audio, — Emergency Locator Transmitters, — Cockpit Voice Recorder, — Very High Frequency omnidirectional range (VOR), — Automatic Direction Finding (ADF), — Instrument Landing System (ILS), — Microwave Landing System (MLS), — Flight Director systems, Distance Measuring Equipment (DME), — Very Low Frequency and hyperbolic navigation (VLF/Omega), — Doppler navigation, — Area navigation, RNAV systems, — Flight Management Systems, — Global Positioning System (GPS), Global Navigation Satellite Systems (GNSS), — Inertial Navigation System, — Air Traffic Control transponder, secondary surveillance radar, — Traffic Alert and Collision Avoidance System (TCAS), — Weather avoidance radar, — Radio altimeter, — ARINC communication and reporting.	
13.5 **Electrical Power (ATA 24)**	3
Batteries Installation and Operation; DC power generation; AC power generation; Emergency power generation; Voltage regulation; Power distribution; Inverters, transformers, rectifiers; Circuit protection; External/Ground power.	
13.6 **Equipment and Furnishings (ATA 25)**	3
Electronic emergency equipment requirements; Cabin entertainment equipment.	

	LEVEL
	B2
13.7 **Flight Controls (ATA 27)** (a) Primary controls: aileron, elevator, rudder, spoiler; Trim control; Active load control; High lift devices; Lift dump, speed brakes; System operation: manual, hydraulic, pneumatic; Artificial feel, Yaw damper, Mach trim, rudder limiter, gust locks. Stall protection systems;	2
(b) System operation: electrical, fly-by-wire.	3
13.8 **Instruments (ATA 31)** Classification; Atmosphere; Terminology; Pressure measuring devices and systems; Pitot static systems; Altimeters; Vertical speed indicators; Airspeed indicators; Machmeters; Altitude reporting/alerting systems; Air data computers; Instrument pneumatic systems; Direct reading pressure and temperature gauges; Temperature indicating systems; Fuel quantity indicating systems; Gyroscopic principles; Artificial horizons; Slip indicators; Directional gyros; Ground Proximity Warning Systems; Compass systems; Flight Data Recording systems; Electronic Flight Instrument Systems; Instrument warning systems including master warning systems and centralised warning panels; Stall warning systems and angle of attack indicating systems; Vibration measurement and indication; Glass cockpit.	3
13.9 **Lights (ATA 33)** External: navigation, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	3

	LEVEL
	B2
13.10 **On Board Maintenance Systems (ATA 45)**	3
Central maintenance computers;	
Data loading system;	
Electronic library system;	
Printing;	
Structure monitoring damage tolerance monitoring).	
13.11 **Air Conditioning and Cabin Pressurisation (ATA21)**	
13.11.1. *Air supply* Sources of air supply including engine bleed, APU and ground cart;	2
13.11.2. *Air Conditioning* Air conditioning systems;	2
Air cycle and vapour cycle machines;	3
Distribution systems;	1
Flow, temperature and humidity control system.	3
13.11.3. *Pressurisation* Pressurisation systems;	3
Control and indication including control and safety valves;	
Cabin pressure controllers.	
13.11.4. *Safety and warning devices* Protection and warning devices.	3
13.12 **Fire Protection (ATA 26)**	
(a) Fire and smoke detection and warning systems;	3
Fire extinguishing systems;	
System tests;	
(b) Portable fire extinguisher.	1
13.13 **Fuel Systems (ATA 28)**	
System lay-out;	1
Fuel tanks;	1
Supply systems;	1
Dumping, venting and draining;	1
Cross-feed and transfer;	2
Indications and warnings;	3
Refuelling and defuelling;	2
Longitudinal balance fuel systems.	3
System lay-out;	1
Hydraulic fluids;	1
Hydraulic reservoirs and accumulators;	1
Pressure generation: electrical, mechanical, pneumatic;	3
Emergency pressure generation;	3

	LEVEL
	B2
Filters;	1
Pressure control;	3
Power distribution;	1
Indication and warning systems;	3
Interface with other systems.	3
13.15 **Ice and Rain Protection (ATA 30)**	
Ice formation, classification and detection;	2
Anti-icing systems: electrical, hot air and chemical;	2
De-icing systems: electrical, hot air, pneumatic, chemical;	3
Rain repellent;	1
Probe and drain heating;	3
Wiper Systems.	1
13.16 **Landing Gear (ATA 32)**	
Construction, shock absorbing;	1
Extension and retraction systems: normal and emergency;	3
Indications and warnings;	3
Wheels, brakes, antiskid and autobraking;	3
Tyres;	1
Steering;	3
Air-ground sensing.	3
13.17 **Oxygen (ATA 35)**	
System lay-out: cockpit, cabin;	3
Sources, storage, charging and distribution;	3
Supply regulation;	3
Indications and warnings.	3
13.18 **Pneumatic/Vacuum (ATA 36)**	
System lay-out;	2
Sources: engine/APU, compressors, reservoirs, ground supply;	2
Pressure control;	3
Distribution;	1

	LEVEL
	B2
Indications and warnings;	3
Interfaces with other systems.	3
13.19 **Water/Waste (ATA 38)**	2
Water system lay-out, supply, distribution, servicing and draining;	
Toilet system lay-out, flushing and servicing.	
13.20 **Integrated Modular Avionics (ATA42)**	3
Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others:	
Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc.;	
Core System;	
Network Components.	
13.21 **Cabin Systems (ATA44)**	3
The units and components which furnish a means of entertaining the passengers and providing communication within the aircraft (Cabin Intercommunication Data System) and between the aircraft cabin and ground stations (Cabin Network Service). Includes voice, data, music and video transmissions.	
The Cabin Intercommunication Data System provides an interface between cockpit/cabin crew and cabin systems. These systems support data exchange of the different related LRU's and they are typically operated via Flight Attendant Panels.	
The Cabin Network Service typically consists on a server, typically interfacing with, among others, the following systems:	
— Data/Radio Communication, In-Flight Entertainment System.	
The Cabin Network Service may host functions such as:	
— Access to pre-departure/departure reports,	
— E-mail/intranet/Internet access,	
— Passenger database;	
Cabin Core System;	
In-flight Entertainment	
System;	
External Communication System;	
Cabin Mass Memory System; Cabin Monitoring System; Miscellaneous	
Cabin System.	

	LEVEL
	B2
13.22 **Information Systems (ATA46)** The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display. Typical examples include Air Traffic and Information Management Systems and Network Server Systems. Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.	3

MODULE 14. PROPULSION

	LEVEL
	B2
14.1 **Turbine Engines** (a) Constructional arrangement and operation of turbojet, turbofan, turboshaft and turbopropeller engines;	1
(b) Electronic Engine control and fuel metering systems (FADEC).	2
14.2 **Engine Indicating Systems** Exhaust gas temperature/Interstage turbine temperature systems; Engine speed; Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems; Oil pressure and temperature; Fuel pressure, temperature and flow; Manifold pressure; Engine torque; Propeller speed.	2
14.3 **Starting and Ignition Systems** Operation of engine start systems and components; Ignition systems and components; Maintenance safety requirements.	2

MODULE 15. GAS TURBINE ENGINE

	LEVEL	
	A	B1
15.1 **Fundamentals**	1	2
Potential energy, kinetic energy, Newton's laws of motion, Brayton cycle;		
The relationship between force, work, power, energy, velocity, acceleration;		
Constructional arrangement and operation of turbojet, turbofan, turboshaft, turboprop.		
15.2 **Engine Performance**	—	2
Gross thrust, net thrust, choked nozzle thrust, thrust distribution, resultant thrust, thrust horsepower, equivalent shaft horsepower, specific fuel consumption;		
Engine efficiencies;		
By-pass ratio and engine pressure ratio;		
Pressure, temperature and velocity of the gas flow;		
Engine ratings, static thrust, influence of speed, altitude and hot climate, flat rating, limitations.		
15.3 **Inlet**	2	2
Compressor inlet ducts		
Effects of various inlet configurations;		
Ice protection.		
15.4 **Compressors**	1	2
Axial and centrifugal types;		
Constructional features and operating principles and applications;		
Fan balancing;		
Operation:		
Causes and effects of compressor stall and surge;		
Methods of air flow control: bleed valves, variable inlet guide vanes, variable stator vanes, rotating stator blades;		
Compressor ratio.		
15.5 **Combustion Section**		
Constructional features and principles of operation.	1	2
15.6 **Turbine Section**		
Operation and characteristics of different turbine blade types;	2	2
Blade to disk attachment;		
Nozzle guide vanes;		
Causes and effects of turbine blade stress and creep.		

	LEVEL	
	A	B1
15.7 **Exhaust** Constructional features and principles of operation; Convergent, divergent and variable area nozzles; Engine noise reduction; Thrust reversers.	1	2
15.8 **Bearings and Seals** Constructional features and principles of operation.	—	2
15.9 **Lubricants and Fuels** Properties and specifications; Fuel additives; Safety precautions.	1	2
15.10 **Lubrication Systems** System operation/lay-out and components.	1	2
15.11 **Fuel Systems** Operation of engine control and fuel metering systems including electronic engine control (FADEC); Systems lay-out and components.	1	2
15.12 **Air Systems** Operation of engine air distribution and anti-ice control systems, including internal cooling, sealing and external air services.	1	2
15.13 **Starting and Ignition Systems** Operation of engine start systems and components; Ignition systems and components; Maintenance safety requirements.	1	2

	LEVEL	
	A	B1
15.14 **Engine Indication Systems** Exhaust Gas Temperature/Interstage Turbine Temperature; Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems; Oil pressure and temperature; Fuel pressure and flow; Engine speed; Vibration measurement and indication; Torque; Power.	1	2
15.15 **Power Augmentation Systems** Operation and applications; Water injection, water methanol; Afterburner systems.	—	1
15.16 **Turbo-prop Engines** Gas coupled/free turbine and gear coupled turbines; Reduction gears; Integrated engine and propeller controls; Overspeed safety devices.	1	2
15.17 **Turbo-shaft Engines** Arrangements, drive systems, reduction gearing, couplings, control systems.	1	2
15.18 **Auxiliary Power Units (APUs)** Purpose, operation, protective systems.	1	2
15.19 **Powerplant Installation** Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2
15.20 **Fire Protection Systems** Operation of detection and extinguishing systems.	1	2

	LEVEL	
	A	B1
15.21 **Engine Monitoring and Ground Operation** Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Trend (including oil analysis, vibration and boroscope) monitoring; Inspection of engine and components to criteria, tolerances and data specified by engine manufacturer; Compressor washing/cleaning; Foreign Object Damage.	1	3
15.22 **Engine Storage and Preservation** Preservation and depreservation for the engine and accessories/systems.	—	2

MODULE 16. PISTON ENGINE

	LEVEL		
	A	B1	B3
16.1 **Fundamentals** Mechanical, thermal and volumetric efficiencies; Operating principles — 2 stroke, 4 stroke, Otto and Diesel; Piston displacement and compression ratio; Engine configuration and firing order.	1	2	2
16.2 **Engine Performance** Power calculation and measurement; Factors affecting engine power; Mixtures/leaning, pre-ignition.	1	2	2
16.3 **Engine Construction** Crank case, crank shaft, cam shafts, sumps; Accessory gearbox; Cylinder and piston assemblies; Connecting rods, inlet and exhaust manifolds; Valve mechanisms; Propeller reduction gearboxes.	1	2	2

	LEVEL		
	A	B1	B3
16.4 **Engine Fuel Systems**			
16.4.1 *Carburettors*	1	2	2
Types, construction and principles of operation;			
Icing and heating.			
16.4.2 *Fuel injection systems*	1	2	2
Types, construction and principles of operation.			
16.4.3 *Electronic engine control*	1	2	2
Operation of engine control and fuel metering systems including electronic engine control (FADEC);			
Systems lay-out and components.			
16.5 **Starting and Ignition Systems**	1	2	2
Starting systems, pre-heat systems;			
Magneto types, construction and principles of operation;			
Ignition harnesses, spark plugs;			
Low and high tension systems.			
16.6 **Induction, Exhaust and Cooling Systems**	1	2	2
Construction and operation of: induction systems including alternate air systems;			
Exhaust systems, engine cooling systems — air and liquid.			
16.7 **Supercharging/Turbocharging**	1	2	2
Principles and purpose of supercharging and its effects on engine parameters;			
Construction and operation of supercharging/turbo-charging systems;			
System terminology;			
Control systems;			
System protection.			
16.8 **Lubricants and Fuels**	1	2	2
Properties and specifications;			
Fuel additives;			
Safety precautions.			

	LEVEL		
	A	B1	B3
16.9 **Lubrication Systems** System operation/lay-out and components.	1	2	2
16.10 **Engine Indication Systems** Engine speed; Cylinder head temperature; Coolant temperature; Oil pressure and temperature; Exhaust Gas Temperature; Fuel pressure and flow; Manifold pressure.	1	2	2
16.11 **Powerplant Installation** Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2	2
16.12 **Engine Monitoring and Ground Operation** Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Inspection of engine and components: criteria, tolerances, and data specified by engine manufacturer.	1	3	2
16.13 **Engine Storage and Preservation** Preservation and depreservation for the engine and accessories/systems.	—	2	1

MODULE 17A. PROPELLER

Note: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 17B.

	LEVEL	
	A	B1
17.1 **Fundamentals** Blade element theory; High/low blade angle, reverse angle, angle of attack, rotational speed; Propeller slip; Aerodynamic, centrifugal, and thrust forces; Torque; Relative airflow on blade angle of attack; Vibration and resonance.	1	2
17.2 **Propeller Construction** Construction methods and materials used in wooden, composite and metal propellers; Blade station, blade face, blade shank, blade back and hub assembly; Fixed pitch, controllable pitch, constant speeding propeller; Propeller/spinner installation.	1	2
17.3 **Propeller Pitch Control** Speed control and pitch change methods, mechanical and electrical/electronic; Feathering and reverse pitch; Overspeed protection.	1	2
17.4 **Propeller Synchronising** Synchronising and synchrophasing equipment.	—	2
17.5 **Propeller Ice Protection** Fluid and electrical de-icing equipment.	1	2
17.6 **Propeller Maintenance** Static and dynamic balancing; Blade tracking; Assessment of blade damage, erosion, corrosion, impact damage, delamination; Propeller treatment/repair schemes; Propeller engine running.	1	3
17.7 **Propeller Storage and Preservation** Propeller preservation and depreservation.	1	2

MODULE 17B. PROPELLER

Note: The scope of this Module shall reflect the propeller technology of aeroplanes pertinent to the B3 category.

	LEVEL
	B3
17.1 **Fundamentals**	2
Blade element theory;	
High/low blade angle, reverse angle, angle of attack, rotational speed;	
Propeller slip;	
Aerodynamic, centrifugal, and thrust forces;	
Torque;	
Relative airflow on blade angle of attack;	
Vibration and resonance.	
17.2 **Propeller Construction**	2
Construction methods and material used in wooden, composite and metal propellers;	
Blade station, blade face, blade shank, blade back and hub assembly;	
Fixed pitch, controllable pitch, constant speeding propeller;	
Propeller/spinner installation.	
17.3 **Propeller Pitch Control**	2
Speed control and pitch change methods, mechanical and electrical/electronic;	
Feathering and reverse pitch;	
Overspeed protection.	
17.4 **Propeller Synchronising**	2
Synchronising and synchrophasing equipment.	
17.5 **Propeller Ice Protection**	2
Fluid and electrical de-icing equipment.	
17.6 **Propeller Maintenance**	2
Static and dynamic balancing;	
Blade tracking;	
Assessment of blade damage, erosion, corrosion, impact damage, delamination;	
Propeller treatment/repair schemes;	
Propeller engine running.	
17.7 **Propeller Storage and Preservation**	2
Propeller preservation and depreservation.	

IS 2.6.1.8 EXPERIENCE REQUIREMENTS FOR EXTENDING PART 2 AIRCRAFT MAINTENANCE LICENCE

The table below shows the experience requirements for adding a new category or subcategory to an existing Part 2 licence.

The experience shall be practical maintenance experience on operating aircraft in the subcategory relevant to the application.

The experience requirement will be reduced by 50% if the applicant has completed an approved Part 3 course relevant to the subcategory.

To / From	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2	B3
A1	—	6 months	6 months	6 months	2 years	6 months	2 years	1 year	2 years	6 months
A2	6 months	—	6 months	6 months	2 years	6 months	2 years	1 year	2 years	6 months
A3	6 months	6 months	—	6 months	2 years	1 year	2 years	6 months	2 years	1 year
A4	6 months	6 months	6 months	—	2 years	1 year	2 years	6 months	2 years	1 year
B1.1	None	6 months	6 months	6 months	—	6 months	6 months	6 months	1 year	6 months
B1.2	6 months	None	6 months	6 months	2 years	—	2 years	6 months	2 years	None
B1.3	6 months	6 months	None	6 months	6 months	6 months	—	6 months	1 year	6 months
B1.4	6 months	6 months	6 months	None	2 years	6 months	2 years	—	2 years	6 months
B2	6 months	6 months	6 months	6 months	1 year	1 year	1 year	1 year	—	1 year
B3	6 months	None	6 months	6 months	2 years	6 months	2 years	1 year	2 years	—

IS 2.6.1.11 AIRCRAFT TYPE TRAINING AND EXAMINATION STANDARD

On the Job Training

1. **General**

Aircraft type training shall consist of theoretical training and examination, and, except for the category C ratings, practical training.

(a) Theoretical training and examination shall comply with the following requirements:

(i) Shall be conducted by a maintenance training organisation appropriately approved in accordance with (Part 3) or, when conducted by other organisations, as directly approved by the Authority.

(ii) Shall comply with the standard described in paragraph 3.1 and 4 of this IS 2.6.1.11, except as permitted by the differences training described below.

(iii) In the case of a category C person qualified by holding an academic degree as specified in point 2.6.1.8 (a)(5), the first relevant aircraft type theoretical training shall be at the category B1 or B2 level.

(iv) Shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

(b) Practical training shall comply with the following requirements:

(i) Shall be conducted by a maintenance training organisation appropriately approved in accordance with (Part-3) or, when conducted by other organisations, as directly approved by the Authority.

(ii) Shall comply with the standard described in paragraph 3.2 and 4 of this IS 2.6.1.11, except as permitted by the differences training described below.

(iii) Shall include a representative cross section of maintenance activities relevant to the aircraft type.

(iv) Shall include demonstrations using equipment, components, simulators, other training devices or aircraft.

(v) Shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

(c) Differences training

(i) Differences training is the training required in order to cover the differences between two different aircraft type ratings of the same manufacturer as determined by the Authority.

(ii) Differences training has to be defined on a case-to-case basis taking into account the requirements contained in this IS 2.6.1.11 in respect of both theoretical and practical elements of type rating training.

(iii) A type rating shall only be endorsed on a licence after differences training when the applicant also complies with one of the following conditions:

— having already endorsed on the licence the aircraft type rating from which the differences are being identified, or

— having completed the type training requirements for the aircraft from which the differences are being identified.

2. **Aircraft type training levels**

The three levels listed below define the objectives, the depth of training and the level of knowledge that the training is intended to achieve.

Level 1*: A brief overview of the airframe, systems and powerplant as outlined in the Systems Description Section of the Aircraft Maintenance Manual/Instructions for Continued Airworthiness.*

Course objectives: Upon completion of Level 1 training, the student will be able to:

(a) provide a simple description of the whole subject, using common words and examples, using typical terms and identify safety precautions related to the airframe, its systems and powerplant;

(b) identify aircraft manuals, maintenance practices important to the airframe, its systems and powerplant;

(c) define the general layout of the aircraft's major systems;

(d) define the general layout and characteristics of the powerplant;

(e) identify special tooling and test equipment used with the aircraft.

Level 2*: Basic system overview of controls, indicators, principal components, including their location and purpose, servicing and minor troubleshooting. General knowledge of the theoretical and*

practical aspects of the subject.

Course objectives: In addition to the information contained in the Level 1 training, at the completion of Level 2 training, the student will be able to:

(a) understand the theoretical fundamentals; apply knowledge in a practical manner using detailed procedures;

(b) recall the safety precautions to be observed when working on or near the aircraft, powerplant and systems;

(c) describe systems and aircraft handling particularly access, power availability and sources;

(d) identify the locations of the principal components;

(e) explain the normal functioning of each major system, including terminology and nomenclature;

(f) perform the procedures for servicing associated with the aircraft for the following systems: Fuel, Power Plants, Hydraulics, Landing Gear, Water/Waste, and Oxygen;

(g) demonstrate proficiency in use of crew reports and on-board reporting systems (minor troubleshooting) and determine aircraft airworthiness per the MEL/CDL;

(h) demonstrate the use, interpretation and application of appropriate documentation including instructions for continued airworthiness, maintenance manual, illustrated parts catalogue, etc.

***Level 3**: Detailed description, operation, component location, removal/ installation and bite and troubleshooting procedures to maintenance manual level.*

Course objectives: In addition to the information contained in Level 1 and Level 2 training, at the completion of Level 3 training, the student will be able to:

(a) demonstrate a theoretical knowledge of aircraft systems and structures and interrelationships with other systems, provide a detailed description of the subject using theoretical fundamentals and specific examples and to interpret results from various sources and measurements and apply corrective action where appropriate;

(b) perform system, powerplant, component and functional checks as specified in the aircraft maintenance manual;

(c) demonstrate the use, interpret and apply appropriate documentation including structural repair manual, troubleshooting manual, etc.;

(d) correlate information for the purpose of making decisions in respect of fault diagnosis and rectification to maintenance manual level;

(e) describe procedures for replacement of components unique to aircraft type.

3. **Aircraft type training standard**

Although aircraft type training includes both theoretical and practical elements, courses can be approved for the theoretical element, the practical element or for a combination of both.

3.1. *Theoretical element*

(a) Objective:

On completion of a theoretical training course the student shall be able to demonstrate, to the levels identified in the IS 2.6.1.11 syllabus, the detailed

theoretical knowledge of the aircraft's applicable systems, structure, operations, maintenance, repair, and troubleshooting according to approved maintenance data. The student shall be able to demonstrate the use of manuals and approved procedures, including the knowledge of relevant inspections and limitations.

(b) Level of training:
Training levels are those levels defined in point 2 above.

After the first type course for category C certifying staff all subsequent courses need only be to level 1.

During a level 3 theoretical training, level 1 and 2 training material may be used to teach the full scope of the chapter if required. However, during the training the majority of the course material and training time shall be at the higher level.

(c) Duration:
The theoretical training minimum tuition hours are contained in the following table:

Aeroplanes with a maximum take-off mass above 30 000 kg:	
Category	Hours
B1.1	150
B1.2	120
B2	100
C	30

Aeroplanes with a maximum take-off mass equal or less than 30 000 kg and above 5 700 kg:	
Category	Hours
B1.1	120
B1.2	100
B2	100
C	25
Aeroplanes with a maximum take-off mass of 5 700 kg and below (1)	
B1.1	80
B1.2	60
B2	60
C	15
Helicopters (2)	
B1.3	120
B1.4	100
B2	100
C	25

(1) For non-pressurised piston engine aeroplanes below 2 000 kg MTOM the minimum duration can be reduced by 50%.
(2) For helicopters in group 2 (as defined in point 2.6.1.11) the minimum duration can be reduced by 30%.

For the purpose of the table above, a tuition hour means 60 minutes of teaching and exclude any breaks, examination, revision, preparation and aircraft visit.

These hours apply only to theoretical courses for complete aircraft/ engine combinations according to the type rating as defined by the Authority.

(d) Justification of course duration:
Training courses carried out in a maintenance training organisation approved in accordance with (Part- 3) and courses directly approved by the Authority shall justify their hour duration and the coverage of the full syllabus by a training needs analysis based on:

— the design of the aircraft type, its maintenance needs and the types of operation,
— detailed analysis of applicable chapters — see contents table in point 3.1(e) below,
— detailed competency analysis showing that the objectives as stated in point 3.1(a) above are fully met.

Where the training needs analysis shows that more hours are needed, course lengths shall be longer than the minimum specified in the table.

Similarly, tuition hours of differences courses or other training course combinations (such as combined B1/B2 courses), and in cases of theoretical type training courses below the figures given in point 3.1(c) above, these shall be justified to the Authority by the training needs analysis as described above.

In addition, the course must describe and justify the following:

— The minimum attendance required to the trainee, in order to meet the objectives of the course.
— The maximum number of hours of training per day, taking into account pedagogical and human factors principles.

If the minimum attendance required is not met, the certificate of recognition shall not be issued. Additional training may be provided by the training organisation in order to meet the minimum attendance time.

(e) Content:
As a minimum, the elements in the Syllabus below that are specific to the aircraft type shall be covered. Additional elements introduced due to type variations, technological changes, etc. shall also be included.

The training syllabus shall be focused on mechanical and electrical aspects for B1 personnel, and electrical and avionic aspects for B2.

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2

Introduction module:									
05 Time limits/maintenance checks	1	1	1	1	1	1	1	1	1
06 Dimensions/Areas (MTOM, etc.)	1	1	1	1	1	1	1	1	1
07 Lifting and Shoring	1	1	1	1	1	1	1	1	1
08 Levelling and weighing	1	1	1	1	1	1	1	1	1

Chapters / Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
09 Towing and taxiing	1	1	1	1	1	1	1	1	1
10 Parking/mooring, Storing and Return to Service	1	1	1	1	1	1	1	1	1
11 Placards and Markings	1	1	1	1	1	1	1	1	1
12 Servicing	1	1	1	1	1	1	1	1	1
20 Standard practices — only type particular	1	1	1	1	1	1	1	1	1
Helicopters									
18 Vibration and Noise Analysis (Blade tracking)	—	—	—	—	3	1	3	1	—
60 Standard Practices Rotor	—	—	—	—	3	1	3	1	—
62 Rotors	—	—	—	—	3	1	3	1	1
62A Rotors — Monitoring and indicating	—	—	—	—	3	1	3	1	3
63 Rotor Drives	—	—	—	—	3	1	3	1	1
63A Rotor Drives — Monitoring and indicating	—	—	—	—	3	1	3	1	3
64 Tail Rotor	—	—	—	—	3	1	3	1	1
64A Tail rotor — Monitoring and indicating	—	—	—	—	3	1	3	1	3
65 Tail Rotor Drive	—	—	—	—	3	1	3	1	1
65A Tail Rotor Drive — Monitoring and indicating	—	—	—	—	3	1	3	1	3
66 Folding Blades/Pylon	—	—	—	—	3	1	3	1	—
67 Rotors Flight Control	—	—	—	—	3	1	3	1	—
53 Airframe Structure (Helicopter)	—	—	—	—	3	1	3	1	—
25 Emergency Flotation Equipment	—	—	—	—	3	1	3	1	1

Airframe structures										
51	Standard practices and structures (damage classification, assessment and repair)	3	1	3	1	—	—	—	—	1
53	Fuselage	3	1	3	1	—	—	—	—	1
54	Nacelles/Pylons	3	1	3	1	—	—	—	—	1
55	Stabilisers	3	1	3	1	—	—	—	—	1

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
56 Windows	3	1	3	1	—	—	—	—	1
57 Wings	3	1	3	1	—	—	—	—	1
27A Flight Control Surfaces (All)	3	1	3	1	—	—	—	—	1
52 Doors	3	1	3	1	—	—	—	—	1
Zonal and Station Identification Systems.	1	1	1	1	1	1	1	1	1
Airframe systems:									
21 Air Conditioning	3	1	3	1	3	1	3	1	3
21A Air Supply	3	1	3	1	1	3	3	1	2
21B Pressurisation	3	1	3	1	3	1	3	1	3
21C Safety and Warning Devices	3	1	3	1	3	1	3	1	3
22 Autoflight	2	1	2	1	2	1	2	1	3
23 Communications	2	1	2	1	2	1	2	1	3
24 Electrical Power	3	1	3	1	3	1	3	1	3
25 Equipment and Furnishings	3	1	3	1	3	1	3	1	1
25A Electronic Equipment including emergency equipment	1	1	1	1	1	1	1	1	3
26 Fire Protection	3	1	3	1	3	1	3	1	3
27 Flight Controls	3	1	3	1	3	1	3	1	2
27A Sys. Operation: Electrical/Fly-by-Wire	3	1	—	—	—	—	—	—	3
28 Fuel Systems	3	1	3	1	3	1	3	1	2
28A Fuel Systems — Monitoring and indicating	3	1	3	1	3	1	3	1	3
29 Hydraulic Power	3	1	3	1	3	1	3	1	2
29A Hydraulic Power — Monitoring and indicating	3	1	3	1	3	1	3	1	3
30 Ice and Rain Protection	3	1	3	1	3	1	3	1	3

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
31 Indicating/Recording Systems	3	1	3	1	3	1	3	1	3
31A Instrument Systems	3	1	3	1	3	1	1	3	3
32 Landing Gear	3	1	3	1	3	1	3	1	2
32A Landing Gear — Monitoring and indicating	3	1	3	1	3	1	3	1	3
33 Lights	3	1	3	1	3	1	3	1	3
34 Navigation	2	1	2	1	2	1	2	1	3
35 Oxygen	3	1	3	1	—	—	—	—	2
36 Pneumatic	3	1	3	1	3	1	3	1	2
36A Pneumatic — Monitoring and indicating	3	1	3	1	3	1	3	1	3
37 Vacuum	3	1	3	1	3	1	3	1	2
38 Water/Waste	3	1	3	1	—	—	—	—	2
41 Water Ballast	3	1	3	1	—	—	—	—	1
42 Integrated modular avionics	2	1	2	1	2	1	2	1	3
44 Cabin Systems	2	1	2	1	2	1	2	1	3
45 On-Board Maintenance System (or covered in 31)	3	1	3	1	3	1	—	—	3
46 Information Systems	2	1	2	1	2	1	2	1	3
50 Cargo and Accessory Compartments	3	1	3	1	3	1	3	1	1
Turbine Engine									
70 Standard Practices — Engines,	3	1	—	—	3	1	—	—	1
70A constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems).	3	1	—	—	3	1	—	—	1
70B Engine Performance	3	1	—	—	3	1	—	—	1
71 Powerplant	3	1	—	—	3	1	—	—	1
72 Engine Turbine/Turbo Prop/Ducted Fan/Unducted fan	3	1	—	—	3	1	—	—	1
73 Engine Fuel and Control	3	1	—	—	3	1	—	—	1

Chapters / Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
75 Air	3	1	—	—	3	1	—	—	1
76 Engine controls	3	1	—	—	3	1	—	—	1
78 Exhaust	3	1	—	—	3	1	—	—	1
79 Oil	3	1	—	—	3	1	—	—	1
80 Starting	3	1	—	—	3	1	—	—	1
82 Water Injections	3	1	—	—	3	1	—	—	1
83 Accessory Gear Boxes	3	1	—	—	3	1	—	—	1
84 Propulsion Augmentation	3	1	—	—	3	1	—	—	1
73A FADEC	3	1	—	—	3	1	—	—	3
74 Ignition	3	1	—	—	3	1	—	—	3
77 Engine Indicating Systems	3	1	—	—	3	1	—	—	3
49 Auxiliary Power Units (APUs)	3	1	—	—	—	—	—	—	2
Piston Engine									
70 Standard Practices — Engines	—	—	3	1	—	—	3	1	1
70A Constructional arrangement and operation (Installation, Carburettors, Fuel injection systems, Induction, Exhaust and Cooling Systems, Supercharging/Turbocharging, Lubrication Systems).	—	—	3	1	—	—	3	1	1
70B Engine Performance	—	—	3	1	—	—	3	1	1
71 Powerplant	—	—	3	1	—	—	3	1	1
73 Engine Fuel and Control	—	—	3	1	—	—	3	1	1
76 Engine Control	—	—	3	1	—	—	3	1	1
79 Oil	—	—	3	1	—	—	3	1	1
80 Starting	—	—	3	1	—	—	3	1	1
81 Turbines	—	—	3	1	—	—	3	1	1
82 Water Injections	—	—	3	1	—	—	3	1	1
83 Accessory Gear Boxes	—	—	3	1	—	—	3	1	1
84 Propulsion Augmentation	—	—	3	1	—	—	3	1	1

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
73A FADEC	—	—	3	1	—	—	3	1	3
74 Ignition	—	—	3	1	—	—	3	1	3
77 Engine Indication Systems	—	—	3	1	—	—	3	1	3
Propellers									
60A Standard Practices — Propeller	3	1	3	1	—	—	—	—	1
61 Propellers/Propulsion	3	1	3	1	—	—	—	—	1
61A Propeller Construction	3	1	3	1	—	—	—	—	—
61B Propeller Pitch Control	3	1	3	1	—	—	—	—	—
61C Propeller Synchronising	3	1	3	1	—	—	—	—	1
61D Propeller Electronic control	2	1	2	1	—	—	—	—	3
61E Propeller Ice Protection	3	1	3	1	—	—	—	—	—
61F Propeller Maintenance	3	1	3	1	—	—	—	—	1

(f) Multimedia Based Training (MBT) methods may be used to satisfy the theoretical training element either in the classroom or in a virtual controlled environment subject to the acceptance of the Authority approving the training course.

3.2 Practical training element

(a) Objective:

The objective of skill test is to gain the required competence in performing safe maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks. It includes the awareness of the use of all technical literature and documentation for the aircraft, the use of specialist/special tooling and test equipment for performing removal and replacement of components and modules unique to type, including any on-wing maintenance activity.

(b) Content:

At least 50% of the crossed items in the table below, which are relevant to the particular aircraft type, shall be completed as part of the practical training.

Tasks crossed represent subjects that are important for practical training purposes to ensure that the operation, function, installation and safety significance of key maintenance tasks is adequately addressed; particularly where these cannot be fully explained by theoretical training alone. Although the list details the minimum practical training subjects, other items may be added where applicable to the particular aircraft type.

Tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Glossary of the table: LOC: Location; FOT: Functional/Operational Test; SGH: Service and Ground Handling; R/I: Removal/Installation; MEL: Minimum Equipment List; TS: TroubleShooting.

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
Introduction module:											
5 Time limits/main-tenance checks	X/X	—	—	—	—	—	—	—	—	—	—
6 Dimensions/Areas (MTOM, etc.)	X/X	—	—	—	—	—	—	—	—	—	—
7 Lifting and Shoring	X/X	—	—	—	—	—	—	—	—	—	—
8 Levelling and weighing	X/X	—	X	—	—	—	—	X	—	—	—
9 Towing and taxiing	X/X	—	X	—	—	—	—	X	—	—	—
10 Parking/mooring, Storing and Return to Service	X/X	—	X	—	—	—	—	X	—	—	—
11 Placards and Markings	X/X	—	—	—	—	—	—	—	—	—	—
12 Servicing	X/X	—	X	—	—	—	—	X	—	—	—
20 Standard practices — only type particular	X/X	—	X	—	—	—	—	X	—	—	—
Helicopters:											
18 Vibration and Noise Analysis (Blade tracking)	X/—	—	—	—	—	X	—	—	—	—	—
60 Standard Practices Rotor — only type specific	X/X	—	X	—	—	—	—	X	—	—	—
62 Rotors	X/—	—	X	X	—	X	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
62A Rotors — Monitoring and indicating	X/X	X	X	X	X	X	—	—	X	—	X
63 Rotor Drives	X/—	X	—	—	—	X	—	—	—	—	—
63A Rotor Drives — Monitoring and indicating	X/X	X	—	X	X	X	—	—	X	—	X
64 Tail Rotor	X/—	—	X	—	—	X	—	—	—	—	—
64A Tail rotor -Monitoring and indicating	X/X	X	—	X	X	X	—	—	X	—	X
65 Tail Rotor Drive	X/—	X	—	—	—	X	—	—	—	—	—
65A Tail Rotor Drive — Monitoring and indicating	X/X	X	—	X	X	X	—	—	X	—	X
66 Folding Blades/Pylon	X/—	X	X	—	—	X	—	—	—	—	—
67 Rotors Flight Control	X/—	X	X	—	X	X	—	—	—	—	—
53 Airframe Structure (Helicopter) Note: covered under Airframe structures											
25 Emergency Flotation Equipment	X/X	X	X	X	X	X	X	X	—	—	—
Airframe structures:											
51 Standard Practices and Structures (damage classification, assessment and repair)											
53 Fuselage	X/—	—	—	—	—	X	—	—	—	—	—
54 Nacelles/Pylons	X/—	—	—	—	—	—	—	—	—	—	—
55 Stabilisers	X/—	—	—	—	—	—	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
56 Windows	X/—	—	—	—	—	X	—	—	—	—	—
57 Wings	X/—	—	—	—	—	—	—	—	—	—	—
27A Flight Control Surfaces	X/—	—	—	—	—	X	—	—	—	—	—
52 Doors	X/X	X	X	—	—	—	—	X	—	—	—
Airframe systems:											
21 Air Conditioning	X/X	X	X	—	X	X	X	X	—	X	X
21A Air Supply	X/X	X	—	—	—	—	X	—	—	—	—
21B Pressurisation	X/X	X	—	—	X	X	X	—	—	X	X
21C Safety and warning Devices	X/X	—	X	—	—	—	—	X	—	—	—
22 Autoflight	X/X	—	—	—	X	—	X	X	X	X	X
23 Communications	X/X	—	X	—	X	—	X	X	X	X	X
24 Electrical Power	X/X	X	X	X	X	X	X	X	X	X	X
25 Equipment and Furnishings	X/X	X	X	X	—	—	X	X	X	—	—
25A Electronic Equipment including emergency equipment	X/X	X	X	X	—	—	X	X	X	—	—
26 Fire Protection	X/X	X	X	X	X	X	X	X	X	X	X
27 Flight Controls	X/X	X	X	X	X	X	X	—	—	—	—
27A Sys. Operation: Electrical/Fly-by-Wire	X/X	X	X	X	X	—	X	—	X	—	X
28 Fuel Systems	X/X	X	X	X	X	X	X	X	—	X	—
28A Fuel Systems — Monitoring and indicating	X/X	X	—	—	—	—	X	—	X	—	X
29 Hydraulic Power	X/X	X	X	X	X	X	X	X	—	X	—
29A Hydraulic Power — Monitoring and indicating	X/X	X	—	X	X	X	X	—	X	X	X
30 Ice and Rain Protection	X/X	X	X	—	X	X	X	X	—	X	X

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
31 Indicating/Recording Systems	X/X	X	X	X	X	X	X	X	X	X	X
31A Instrument Systems	X/X	X	X	X	X	X	X	X	X	X	X
32 Landing Gear	X/X	X	X	X	X	X	X	X	X	X	—
32A Landing Gear — Monitoring and indicating	X/X	X	—	X	X	X	X	—	X	X	X
33 Lights	X/X	X	X	—	X	—	X	X	X	X	—
34 Navigation	X/X	—	X	—	X	—	X	X	X	X	X
35 Oxygen	X/—	X	X	X	—	—	X	X	—	—	—
36 Pneumatic	X/—	X	—	X	X	X	X	—	X	X	X
36A Pneumatic — Monitoring and indicating	X/X	X	X	X	X	X	X	X	X	X	X
37 Vacuum	X/—	X	—	X	X	X	—	—	—	—	—
38 Water/Waste	X/—	X	X	—	—	—	X	X	—	—	—
41 Water Ballast	X/—	—	—	—	—	—	—	—	—	—	—
42 Integrated modular avionics	X/X	—	—	—	—	—	X	X	X	X	X
44 Cabin Systems	X/X	—	—	—	—	—	X	X	X	X	X
45 On-Board Maintenance System (or covered in 31)	X/X	X	X	X	X	X	X	X	X	X	X
46 Information Systems	X/X	—	—	—	—	—	X	—	X	X	X
50 Cargo and Accessory Compartments	X/X	—	X	—	—	—	—	—	—	—	—
Turbine/Piston Engine Module:											
70 Standard Practices — Engines — only type particular	—	—	X	—	—	—	—	X	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
70A Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	—	—	—	—	—	—	—	—	—	—
Turbine engines:											
70B Engine Performance	—	—	—	—	—	X	—	—	—	—	—
71 Power Plant	X/—	X	X	—	—	—	—	X	—	—	—
72 Engine Turbine/Turbo Prop/Ducted Fan/ Unducted fan	X/—	—	—	—	—	—	—	—	—	—	—
73 Engine Fuel and Control	X/X	X	—	—	—	—	—	—	—	—	—
73A FADEC Systems	X/X	X	—	X	X	X	X	—	X	X	X
74 Ignition	X/X	X	—	—	—	—	X	—	—	—	—
75 Air	X/—	—	—	X	—	X	—	—	—	—	—
76 Engine Controls	X/—	X	—	—	—	X	—	—	—	—	—
77 Engine Indicating	X/X	X	—	—	X	X	X	—	—	X	X
78 Exhaust	X/—	X	—	—	X	—	—	—	—	—	—
79 Oil	X/—	—	X	X	—	—	—	—	—	—	—
80 Starting	X/—	X	—	—	X	X	—	—	—	—	—
82 Water Injection	X/—	X	—	—	—	—	—	—	—	—	—
83 Accessory Gearboxes	X/—	—	X	—	—	—	—	—	—	—	—
84 Propulsion Augmen-tation	X/—	X	—	—	—	—	—	—	—	—	—
Auxiliary Power Units (APUs):											
49 Auxiliary Power Units (APUs)	X/—	X	X	—	—	X	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
Piston Engines:											
70 Standard Practices — Engines — only type particular	—	—	X	—	—	—	—	X	—	—	—
70A Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	—	—	—	—	—	—	—	—	—	—
70B Engine Performance	—	—	—	—	—	X	—	—	—	—	—
71 Power Plant	X/—	X	X	—	—	—	—	X	—	—	—
73 Engine Fuel and Control	X/X	X	—	—	—	—	—	—	—	—	—
73A FADEC Systems	X/X	X	—	X	X	X	X	X	X	X	X
74 Ignition	X/X	X	—	—	—	—	X	—	—	—	—
76 Engine Controls	X/—	X	—	—	—	X	—	—	—	—	—
77 Engine Indicating	X/X	X	—	—	X	X	X	—	—	X	X
78 Exhaust	X/—	X	—	—	X	X	—	—	—	—	—
79 Oil	X/—	—	X	X	—	—	—	—	—	—	—
80 Starting	X/—	X	—	—	X	X	—	—	—	—	—
81 Turbines	X/—	X	X	X	—	X	—	—	—	—	—
82 Water Injection	X/—	X	—	—	—	—	—	—	—	—	—
83 Accessory Gearboxes	X/—	—	X	X	—	—	—	—	—	—	—
84 Propulsion Augmentation	X/—	X	—	—	—	—	—	—	—	—	—
Propellers:											
60A Standard Practices — Propeller	—	—	—	X	—	—	—	—	—	—	—
61 Propellers/Propulsion	X/X	X	X	—	X	X	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
61A Propeller Construction	X/X	—	X	—	—	—	—	—	—	—	—
61B Propeller Pitch Control	X/—	X	—	X	X	X	—	—	—	—	—
61C Propeller Synchro-nising	X/—	X	—	—	—	X	—	—	—	X	—
61D Propeller Electronic control	X/X	X	X	X	X	X	X	X	X	X	X
61E Propeller Ice Protection	X/—	X	—	X	X	X	—	—	—	—	—
61F Propeller Maintenance	X/X	X	X	X	X	X	X	X	X	X	X

4. Type training examination and practical training

4.1. *Theoretical element examination standard*

After the theoretical portion of the aircraft type training has been completed, a written examination shall be performed, which shall comply with the following:

(a) Format of the examination is of the multi-choice type. Each multi-choice question shall have 4 alternative answers of which only one shall be the correct answer. The total time is based on the total number of questions and the time for answering is based upon a nominal average of 90 seconds per question.

(b) The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length.

(c) In numerical questions, the incorrect answers shall correspond to procedural errors such as the use of incorrect sense (+ versus -) or incorrect measurement units. They shall not be mere random numbers.

(d) The level of examination for each chapter ([1]) shall be the one defined in point 2 'Aircraft type training levels'. However, the use of a limited number of questions at a lower level is acceptable.

(e) The examination shall be of the closed book type. No reference material is permitted. An exception will be made for the case of examining a B1 or B2 candidate's ability to interpret technical documents.

(f) The number of questions shall be at least 1 question per hour of instruction. The number of questions for each chapter and level shall be proportionate to:
— the effective training hours spent teaching at that chapter and level,
— the learning objectives as given by the training needs analysis.

The Authority will assess the number and the level of the questions when approving the course.

(a) The minimum examination pass mark is 75 %. When the type training examination is split in several examinations, each examination shall be passed with at least a 75 % mark. In order to be possible to achieve exactly a 75 % pass mark, the number of questions in the examination shall be a multiple of 4.

(b) Penalty marking (negative points for failed questions) is not to be used.

(c) End of module phase examinations cannot be used as part of the final examination unless they contain the correct number and level of questions required.

4.2. *Practical training element practical skills standard*

After the practical element of the aircraft type training has been completed, a practical training must be performed, which must comply with the following:

(a) The practical training shall be performed by designated assessors appropriately qualified.

(b) The practical training shall evaluate the knowledge and skills of the trainee.

5. **Type examination standard**

Type examination shall be conducted by training organisations appropriately approved under Part 3 by the Authority.

The examination shall be oral, written or practical training based, or a combination thereof and it shall comply with the following requirements:

(a) Oral examination questions shall be open.

(b) Written examination questions shall be essay type or multi-choice questions.

(c) Practical training shall determine a person's competence to perform a task.

(d) Examinations shall be on a sample of chapters (2) drawn from paragraph 3 type training/examination syllabus, at the indicated level.

(e) The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All of the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length.

(f) In numerical questions, the incorrect answers shall correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they shall not be mere random numbers.

(g) The examination shall ensure that the following objectives are met:

1. Properly discuss with confidence the aircraft and its systems.

2. Ensure safe performance of maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks such as engine run, etc., if required.

3. Correctly use all technical literature and documentation for the aircraft.

4. Correctly use specialist/special tooling and test equipment, perform removal and replacement of components and modules unique to type, including any on-wing maintenance activity

(h) The following conditions apply to the examination:

1. The maximum number of consecutive attempts is three. Further sets of three attempts are allowed with a 1 year waiting period between sets. A waiting period of 30 days is required after the first failed attempt within one set, and a waiting period of 60 days is required after the second failed attempt.

   The applicant shall confirm in writing to the maintenance training organisation or the Authority to which they apply for an examination, the number and dates of attempts during the last year and the maintenance training organisation or the Authority where these attempts took place. The maintenance training organisation or the Authority is responsible for checking the number of attempts within the applicable timeframes.

2. The type examination shall be passed and the required practical experience shall be completed within the 3 years preceding the application for the rating endorsement on the aircraft maintenance licence.

3. Type examination shall be performed with at least one examiner present. The examiner(s) shall not have been involved in the applicant's training.

(i) A written and signed report shall be made by the examiner(s) to explain why the candidate has passed or failed.

6. **On the Job Training**

On the Job Training (OJT) shall be approved by the Authority who has issued the licence.

It shall be conducted at and under the control of maintenance organisation appropriately approved for the maintenance of the particular aircraft type and shall be assessed by designated assessors appropriately qualified.

It shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

(a) Objective:
The objective of OJT is to gain the required competence and experience in performing safe maintenance.

(b) Content:
OJT shall cover a cross section of tasks acceptable to the Authority. The OJT tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Each task shall be signed off by the student and countersigned by a designated supervisor. The tasks listed shall refer to an actual job card/work sheet, etc.

The final practical training of the completed OJT is mandatory and shall be performed by a designated assessor appropriately qualified.

The following data shall be addressed on the OJT worksheets/logbook:

1. Name of Trainee;
2. Date of Birth;
3. Approved Maintenance Organisation;
4. Location;
5. Name of supervisor(s) and assessor, (including licence number if applicable);
6. Date of task completion;
7. Description of task and job card/work order/tech log, etc.;
8. Aircraft type and aircraft registration;
9. Aircraft rating applied for.

In order to facilitate the verification by the Authority, demonstration of the OJT shall consist of (i) detailed worksheets/logbook and (ii) a compliance report demonstrating how the OJT meets the requirement of this Part.

IS 2.6.2 SECTION B – PROCEDURES FOR AUTHORITY

IS 2.6.2.6 CCAA PEL 20 FORM - AIRCRAFT MAINTENANCE TECHNICIAN LICENCE, RATING, CONVERSION OR VALIDATION CERTIFICATE APPLICATION REFERRED TO IN PART 2

CCAA PEL 020
AVIATION MAINTENANCE TECHNICIAN LICENCE, RATING, CONVERSION OR VALIDATION CERTIFICATE APPLICATION

I. APPLICATION FOR:

A.	☐ Original Issuance	☐ Renewal	☐ Re-issue	☐ Added Rating	☐ Validation	☐ Conversion	☐ Amendment

B. Ratings	A	B1	B2	B3	C
Airplane Turbine	☐	☐			
Airplane Piston	☐	☐			
Helicopter Turbine	☐	☐			
Helicopter Piston	☐	☐			
Avionics			☐		
Piston engine non-pressurized aeroplanes of MTOM of 2t and below				☐	
Large Aircraft					☐
Large Aircraft other than Large aircrafts					☐

Type endorsement/Rating endorsement / Limitation removal (if applicable):

II. APPLICANT INFORMATION:

1. Legal name (last, first, middle):	**2.** Identification Number:	**3.** Date of birth (dd/mm/yy):
4a. Permanent mailing address (number and street):	**4b.** City and state or province:	**4c.** Country and postal code:
	5. Place of Birth:	**6.** Telephone number:
		7. Email address:

8. Nationality:	**9.** Height (cm)	**10.** Weight (kg):	**11.** Gender: ☐ Male ☐ Female
12. Hair:	**13.** Eyes:		
14a. Do you now hold, or have you ever held a CCAA licence? If yes, complete blocks 14b through 14e. ☐ Yes Date:_____ ☐ No	**14b.** If yes, has your licence ever been suspended or revoked? ☐ Yes Date:_____ ☐ No	**14c.** Type of Licence:	**14d.** Licence Number:
		14e. Date issued (dd/mm/yyyy):	
15a. Do you speak and understand the language of Curaçao? ☐ Yes ☐ No		**15b.** Do you speak and understand the English language? ☐ Yes ☐ No	

III. LICENCE, RATING, CONVERSION OR VALIDATION CERTIFICATE APPLIED FOR ON BASIS OF:

☐ **A.** Knowledge Test	**1. Knowledge test for applied for:**		**2a.** Knowledge test successfully completed for: **2b.** Knowledge test date of completion (dd/mm/yyyy):
☐ **B**. Assess-ment	**1.** Assessment applied for*:*		**2a.** Practical training successfully completed for: _____ **2b.** Assessment date of completion (dd/mm/yyyy):
☐ **C.** Graduate from an Approved Training Organisation (ATO):	**1.** Name and location of ATO:		**2.** ATO Certificate Number:
	3. Course from which graduated:		**4.** Graduation Date (dd/mm/yyyy):
☐ **D.** Holder of a Foreign Licence:	**1**. Country:	**2.** Type of Licence:	**3.** Licence Number:
	4. Ratings:		
	1. Service:		

☐ **E.** Military Competence:	**4.** Ratings:
☐ **F.** Civilian Experience:	

IV. EXPERIENCE:

1. Dates(month and year)		2. Employer and Location	3. Type of Work Performed
From	To		

V. APPLICANT'S CERTIFICATION:

I certify that the statements made by me on this application are true.	**1**. Signature (print name and sign) :	**2**. Date (dd/mm/yyyy):

VI. ENDORSEMENT FOR THE KNOWLEDGE TEST

A. AUTHORIZED INSTRUCTOR

I have personally instructed the applicant in the subject areas required by the CCARs for the licence, rating or certificate and consider this person ready to take the knowledge test.

1. Date (dd/mm/yyyy)	**2.** Instructor's name and signature (print name and sign)	**3.** Instructor's licence number:	**4.** Instructor's licence expiration date (dd/mm/yyyy):

B. APPROVED TRAINING ORGANIZATION:

The applicant has successfully completed our _____approved course, and is recommended for _____ test.

1. Date (dd/mm/yyyy):	**2. ATO** name:	**3.** ATO certificate number	**4.** Name, title and signature of ATO official (print name, title and sign)

VII. ENDORSEMENT FOR THE ASSESSMENT

A. AUTHORIZED INSTRUCTOR

I have personally instructed the applicant in the subject areas required by the CCAR for the licence, rating or certificate and consider this person ready to take the Assessment.

1. Date (dd/mm/yyyy)	2. Instructor's name and signature (print and sign)	3. Instructor's Licence number.	4. Instructor's licence expiration date(dd/mm/yyyy)

B. APPROVED TRAINING ORGANIZATION

The applicant has successfully completed our _____approved course, and is endorsed for the

_____test.

1. Date (dd/mm/yyyy)	2. ATO name	3. ATO certificate number	**4.** Name, title and signature of ATO official. (print name, title and sign)

C. CCAA AUTHORISATION

1. ☐ I have personally reviewed this applicant's application, identification and other required documentation and find this applicant meets the requirements of CCARs Part 2 for the Licence, Rating or certificate sought and authorize the applicant to take the knowledge test.

   ☐ Initial Knowledge Test ☐ Re-test after failure. ☐ Renewal. ☐ Re-issue.

2. ☐ I have personally reviewed this applicant's application, identification and other required documentation and find this applicant **does not** meet the requirements of CCARs Part 2 for the Licence, Rating or certificate sought and is **not** authorized to take the Assessment.

3. Remarks (if any):

   _____

   _____

4. Name, title and signature of CCAA official who conducted the review.

   _____
   (printed name and title)

   _____
   (signature)
   Date: _____(dd/mm/yyyy)

VIII. Mechanic Assessment Result	**Remarks**
1. GENERAL ASSESSMENT	
1a. Oral Pass ☐ Expiration date Fail ☐	
Question number failed	
1b. Practical Pass ☐ Expiration date Fail ☐	
Task number failed	
2. AIRFRAME RATING ASSESSMENT	
Airframe Structures	
2a. Oral Pass ☐ Expiration date Fail ☐	
Question number failed	
2b. Practical Pass ☐ Expiration date Fail ☐	
Task number failed	
Airframe Systems and Components	
2c. Oral Pass ☐ Expiration date Fail ☐	
Question number failed	

2d. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											
3. POWERPLANT RATING ASSESSMENT											
Powerplant Theory and Maintenance											
3a. Oral Pass ☐ Expiration date Fail ☐											
Question number failed											
3b. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											
Powerplant Systems and Components											
3c. Oral Pass ☐ Expiration date Fail ☐											
Question number failed											
3d. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											
4. AVIONICS RATING ASSESSMENT											
4a. Oral Pass ☐ Expiration date Fail ☐											
Question number failed											
4b. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											

IX. ASSESSMENT REPORT (EXAMINER OR CCAA INSPECTOR)

1. Examiner or Inspector statement.

a. ☐ I have personally reviewed this applicant's application, identification and other required documentation and find this applicant meets the requirements of CCARs Part 2 for the Licence, rating or certificate sought.

b. ☐ I have personally tested/checked this applicant in accordance with pertinent procedures and requirements with the results indicated below.

☐ Approved.
☐ Disapproved – Notice of Denial issued

c. ☐ I have personally checked that this applicant meets the language proficiency requirements for the:
☐ English Language.

2. Location of test (facility, city, state or province, country)

3. Licence, rating or certificate for which tested.

4. Attachments

☐ Report of knowledge test. ☐ Superseded certificate. ☐ Letter.

5. Date (dd/mm/yyyy)	**6.** Examiner's or inspector's name and signature (print and sign)	**7.** Examiner's designation number or inspector's licence number.	**8.** Examiner's designation expiration date (dd/mm/yyyy)

X. CCAA Report

A. CCAA Action

☐ Examiners/Inspector recommendation

☐ Accepted ☐ Rejected

☐ Issue of aviation mechanic technician licence

☐ Renewal of aviation mechanic technician licence

☐ Re-issue of aviation mechanic technician licence

☐ Issue of rating

☐ Renewal of rating

☐ Re-issue of rating

Indicate rating:

☐ Airframe

☐ Power plant

☐ Avionics

☐ Issue of validation certificate

☐ Other _____

B. Attachments

☐ Knowledge test report

☐ Assessment report

☐ Notice of Denial

☐ Letter of Discontinuance

☐ Graduation certificate (copy)

☐ Copy of applicant's identification

☐ Verification of authenticity of foreign licence

C. Applicant's Identification

Type of Government-issued identification_____

Identification number _____

Expiration date _____

XI. CCAA Issuance
A. Licence, Rating or Validation Certificate Issued □ Licence _____ Expiration date* _____ □ Rating _____ Expiration date* _____ □ Validation certificate _____ Expiration date* _____ * Date format (dd/mm/yyyy)
B. CCAA Authorisation Name, title and signature of CCAA official who completed the issuance _____ (printed name and title) _____ (signature) Date _____(dd/mm/yyyy)

IS 2.6.2.13 BASIC EXAMINATION STANDARD

1. General

1.1. All basic examinations shall be carried out using the multi-choice question format and essay questions as specified below. The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All of the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length. In numerical questions, the incorrect answers shall correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they shall not be mere random numbers.

1.2. Each multi-choice question shall have 4 alternative answers of which only one shall be the correct answer and the candidate shall be allowed a time per module which is based upon a nominal average of 75 seconds per question.

1.3. Each essay question requires the preparation of a written answer and the candidate shall be allowed 20 minutes to answer each such question.

1.4. Suitable essay questions shall be drafted and evaluated using the knowledge syllabus in IS 2.6.1.7 Modules 7A, 7B, 9A, 9B and 10.

1.5. Each question will have a model answer drafted for it, which will also include any known alternative answers that may be relevant for other subdivisions.

1.6. The model answer will also be broken down into a list of the important points known as Key Points.

1.7. The pass mark for each module and sub-module multi-choice part of the examination is 75%.

1.8. The pass mark for each essay question is 75% in that the candidates answer shall contain 75 % of the required key points addressed by the question and no significant error related to any required key point.

1.9. If either the multi-choice part only or the essay part only is failed, then it is only necessary to retake the multi-choice or essay part, as appropriate.

1.10. Penalty marking systems shall not be used to determine whether a candidate has passed.

1.11. A failed module may not be retaken for at least 90 days following the date of the failed module examination, except in the case of a maintenance training organisation approved in accordance with (Part 3) which conducts a course of retraining tailored to the failed subjects in the particular module when the failed module may be retaken after 30 days.

1.12. The time periods required by point 2.6.1.7 apply to each individual module examination, with the exception of those module examinations which were passed as part of another category licence, where the licence has already been issued.

1.13. The maximum number of consecutive attempts for each module is three. Further sets of three attempts are allowed with a 1 year waiting period between sets.

The applicant shall confirm in writing to the approved maintenance training organisation or the Authority to which they apply for an examination, the number and dates of attempts during the last year and the organisation or the Authority where these attempts took place. The maintenance training organisation or the Authority is responsible for checking the number of attempts within the applicable timeframes.

2. Number of questions per module

2.1. MODULE 1 — MATHEMATICS

Category A: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B2: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

2.2. MODULE 2 — PHYSICS

Category A: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B1: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

2.3. MODULE 3 — ELECTRICAL FUNDAMENTALS

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B3: 24 multi-choice and 0 essay questions. Time allowed 30 minutes.

2.4. MODULE 4 — ELECTRONIC FUNDAMENTALS

Category B1: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2: 40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B3: 8 multi-choice and 0 essay questions. Time allowed 10 minutes.

2.5. MODULE 5 — DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS

Category A: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1.1 and B1.3: 40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B1.2 and B1.4: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B3: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

2.6. MODULE 6 — MATERIALS AND HARDWARE

Category A: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B2: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B3: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

2.7. MODULE 7A — MAINTENANCE PRACTICES

Category A: 72 multi-choice and 2 essay questions. Time allowed 90 minutes plus 40 minutes.

Category B1: 80 multi-choice and 2 essay questions. Time allowed 100 minutes plus 40 minutes.

Category B2: 60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

MODULE 7B — MAINTENANCE PRACTICES

Category B3: 60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

2.8. MODULE 8 — BASIC AERODYNAMICS

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B3: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

2.9. MODULE 9A — HUMAN FACTORS

Category A: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B1: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B2: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

MODULE 9B — HUMAN FACTORS

Category B3: 16 multi-choice and 1 essay questions. Time allowed 20 minutes plus 20 minutes.

2.10. MODULE10 — AVIATION LEGISLATION

Category A: 32 multi-choice and 1 essay question. Time allowed 40 minutes plus 20 minutes.

Category B1: 40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B2: 40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B3: 32 multi-choice and 1 essay questions. Time allowed 40 minutes plus 20 minutes.

2.11. MODULE 11A — TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category A: 108 multi-choice and 0 essay questions. Time allowed 135 minutes.

Category B1: 140 multi-choice and 0 essay questions. Time allowed 175 minutes.

MODULE 11B — PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category A: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B1: 100 multi-choice and 0 essay questions. Time allowed 125 minutes.

MODULE 11C — PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category B3: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

2.12. MODULE 12 — HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS:

Category A: 100 multi-choice and 0 essay questions. Time allowed 125 minutes.

Category B1: 128 multi-choice and 0 essay questions. Time allowed 160 minutes.

2.13. MODULE 13 — AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS

Category B2: 180 multi-choice and 0 essay questions. Time allowed 225 minutes. Questions and time allowed may be split into two examinations as appropriate.

2.14. MODULE 14 — PROPULSION

Category B2: 24 multi-choice and 0 essay questions. Time allowed 30 minutes.

2.15. MODULE 15 — GAS TURBINE ENGINE

Category A: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B1: 92 multi-choice and 0 essay questions. Time allowed 115 minutes.

2.16. MODULE 16 — PISTON ENGINE

Category A: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B3: 68 multi-choice and 0 essay questions. Time allowed 85 minutes.

2.17. MODULE 17A — PROPELLER

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

MODULE 17B — PROPELLER

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

IS 2.8.3 FLIGHT OPERATIONS OFFICER LICENCE

IS 2.8.3.2 SKILL TEST FOR THE FLIGHT OPERATIONS OFFICER LICENCE

The skill test for the flight operations officer licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Flight planning/dispatch release, including the applicants' knowledge and performance of the following tasks:

- (i) Regulatory requirements;
- (ii) Meteorology;
- (iii) Weather observations, analysis, and forecasts;
- (iv) Weather related hazards;
- (v) Aircraft systems, performance, and limitations;
- (vi) Navigation and aircraft navigation systems;
- (vii) Practical dispatch applications;
- (viii) Manuals, handbooks and other written guidance.

(2) Preflight, takeoff, and departure, including the applicant's knowledge and performance of the following tasks:

- (i) Air traffic control procedures;
- (ii) Aerodrome, crew, and company procedures.

(3) In-flight procedures, including the applicant's knowledge and performance of the following tasks:

- (i) Routing, re-routing, and flight plan filing;

(ii) En route communication procedures and requirements.

(4) Arrival, approach, and landing procedures, including the applicant's knowledge and performance of the following task:

(i) Air traffic control and air navigation procedures.

(5) Post flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Communication procedures and requirements;

(ii) Trip records.

(6) Abnormal and emergency procedures, including the applicant's knowledge and performance of the following task:

(i) Abnormal and emergency procedures.

IS 2.10.1 PARACHUTE RIGGER LICENCES, INSTRUCTORS, AND DESIGNATED PARACHUTE RIGGER EXAMINERS

IS 2.10.1.4 SENIOR PARACHUTE RIGGER LICENCE SKILL TEST

The skill test for the senior parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Certification, including the applicants' knowledge and performance of the following tasks:

(i) Senior Parachute Rigger experience requirements.

(ii) Senior Parachute Rigger test requirements.

(2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks:

(i) Senior Parachute Rigger privileges.

(ii) Required facilities and equipment.

(iii) Performance standards.

(iv) Recordation.

(v) Manufacturer's packing instructions.

(vi) Repair classifications.

(vii) Alterations.

(viii) Equipment requirements for intentional parachute jumping.

(ix) TSO 23c requirements.

(3) Packing parachutes, including the applicants' knowledge and performance of the following tasks:

(i) Packing round parachute.

(ii) Packing ram-air parachute.

(iii) Packing piggy-back container parachute.

(4) Parachute operation and care, including the applicants' knowledge and performance of the following tasks:

(i) Parachute storage.

(ii) Parachute drying and airing.

(iii) Parachute assembly inspection.

(iv) Cleaning parachute canopies.

(v) Parachute harness adjustment.

(vi) Pin-type static line requirements.

(vii) Break cord static line requirements.

(viii) Cleaning parachute harness/container.

(5) Parachute construction details, including the applicants' knowledge and performance of the following tasks:

(i) Seam construction defects.

(ii) Webbing joint construction.

(iii) Parachute construction knots.

(iv) Fabric construction.

(v) French fell seam construction.

(vi) Technical standard order TSO-C23c.

(vii) Technical standard order TSO-C23d.

(viii) Fastener tapes.

(ix) Finger loop construction.

(x) Radial seam construction.

(6) Parachute repair, including the applicants' knowledge and performance of the following tasks:

(i) Single canopy repair.

(ii) Replacement of lower control line (ram-air canopy).

(iii) Application of non-destructive test method TS-108.

(iv) Line attachment loop replacement.

(v) Removal and installation of grommets.

(vi) Sewing machine operation.

(vii) Cascade line replacement.

(viii) Nicopress sleeve installation.

(ix) Replacement of V-tab (butterfly tab).

(x) Replacement of continuous suspension line.

(xi) Suspension line replacement in ram-air canopy.

(xii) Container patching.

(xiii) Ram-air canopy repair limitations.

(xiv) Ram-air canopy repair adjacent to a seam.

IS 2.10.1.5 MASTER PARACHUTE RIGGER LICENCE SKILL TEST

The skill test for the master parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Certification, including the applicants' knowledge and performance of the following tasks:

(i) Master Parachute Rigger experience requirements.

(ii) Master Parachute Rigger test requirements.

(2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks:

(i) Master Parachute Rigger privileges.

(ii) Required facilities and equipment.

(iii) Performance standards.

(iv) Recordation.

(v) Manufacturer's packing instructions.

(vi) Repair classifications.

(vii) Alterations.

(viii) Equipment requirements for intentional parachute jumping.

(ix) TSO 23c requirements.

(3) Packing parachutes, including the applicants' knowledge and performance of the following tasks:

(i) Packing round parachute.

(ii) Packing ram-air parachute.

(iii) Packing piggy-back container parachute.

(4) Parachute operation and care, including the applicants' knowledge and performance of the following tasks:

(i) Parachute storage.

(ii) Parachute drying and airing.

(iii) Parachute assembly inspection.

(iv) Cleaning parachute canopies.

(v) Parachute harness adjustment.

(vi) Pin-type static line requirements.

(vii) Break cord static line requirements.

(viii) Cleaning parachute harness/container.

(5) Parachute construction details, including the applicants' knowledge and performance of the following tasks:

(i) Seam construction defects.

(ii) Webbing joint construction.

(iii) Parachute construction knots.

(iv) Fabric construction.

(v) French fell seam construction.

(vi) Technical standard order TSO-C23c.

(vii) Technical standard order TSO-C23d.

(viii) Fastener tapes.

(ix) Finger loop construction.

(x) Radial seam construction.

(6) Parachute repair, including the applicants' knowledge and performance of the following tasks:

(i) Single canopy repair.

(ii) Replacement of lower control line (ram-air canopy).

(iii) Application of non-destructive test method TS-108.

(iv) Line attachment loop replacement.

(v) Removal and installation of grommets.

(vi) Sewing machine operation.

(vii) Cascade line replacement.

(viii) Nicopress sleeve installation.

(ix) Replacement of V-tab (butterfly tab).

(x) Replacement of continuous suspension line.

(xi) Suspension line replacement in ram-air canopy.

(xii) Container patching.

(xiii) Ram-air canopy repair limitations.

(xiv) Ram-air canopy repair adjacent to a seam.

(7) Parachute Alterations, including the applicants' knowledge and performance of the following tasks:

(i) Alteration data approval.

(ii) Install an automatic activation device.

(iii) Fabrication binding corners.

(iv) Altering riser connections.

(v) Bridle cord alteration.

(vi) Threading friction adapter.

(vii) D- or V-ring alteration.

(viii) Conversion of ripcord deployment to hand deployed pilot chute.

(ix) Fabricate a canopy deployment bag.

(x) Convert throw-out pilot chute from rear of leg position to the bottom of container position.

IS 2.10.1.6 TYPE RATINGS—PARACHUTE RIGGER LICENCE SKILL TEST

The skill test for ratings or added ratings to a parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation applicable to the rating sought, including the applicant's knowledge and performance of the following:

(1) Additional rating requirements.

(2) Packing seat-type parachute.

(3) Packing back-type parachute (excluding piggy-back).

(4) Packing chest-type parachute.

(5) Packing lap-type parachute.

IS 2.10.1.13 RESERVED

IS 2.10.3.3 RESERVED

IS 2.10.3.5 RESERVED

IS 2.11.1 MEDICAL PROVISIONS FOR LICENSING

IS 2.11.1.3 CIVIL AVIATION MEDICAL EXAMINERS

(a) Basic training in aviation medicine for CAMEs shall include at least the following:

(1) Basic training in aviation medicine

(2) Physics of atmosphere and space

(3) Basic aeronautical knowledge

(4) Aviation physiology

(5) Ophthalmology

(6) Otorhinolaryngology
(7) Cardiology and general medicine
(8) Neurology
(9) Psychiatry in aviation medicine
(10) Psychology
(11) Dentistry
(12) Accidents, escape and survival
(13) Legislation, rules, and regulations
(14) Air evacuation
(15) Medicine and flying

(b) Advanced training in aviation medicine for CAMEs shall include the following:
(1) Pilot working environment
(2) Aerospace physiology
(3) Ophthalmology
(4) Otorhinolaryngology
(5) Cardiology and general medicine
(6) Neurology/psychiatry
(7) Human factors in aviation
(8) Tropical medicine
(9) Hygiene
(10) Space medicine

IS 2.11.1.9 MEDICAL CERTIFICATE

The following details shall appear on the medical certificate:

(1) Name of State
(2) Medical certificate number
(3) Name of holder in full
(4) Date of birth of holder
(5) Address of holder
(6) Nationality of holder
(7) Signature of holder
(8) Medical certificate Class 1, 2, or 3
(9) Date of issue
(10) Validity
(11) Limitations
(12) Issuing Authority
(13) Signature of Issuing Authority
(16) Examiner/CAA staff signature
(17) Examiner/CAA staff name (printed)
(18) Examiner's authorisation number
(19) Date of examination and State of examination

CURAÇAO CIVIL AVIATION REGULATIONS

PART 3 – APPROVED TRAINING ORGANISATIONS

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PART 3 – APPROVED TRAINING ORGANISATIONS

3.1 GENERAL

3.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for issuing approvals to organisations for the training of aviation personnel and prescribes the general operating rules for an ATO.

3.1.1.2 DEFINITIONS

(a) Definitions are contained in CCAR Part 1 of this regulations.

3.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AMT –** aviation maintenance technician

(2) **ATO –** approved training organisation

(3) **CFI –** chief flight instructor

(4) **CGI –** chief ground instructor

(5) **CPL –** commercial pilot licence

(6) **CRM –** crew resource management

(7) **FE –** flight engineer

(8) **FI –** flight instructor

(9) **FSTD –** flight simulation training device

(10) **GI –** ground instructor

(11) **ICAO –** International Civil Aviation Organization

(12) **IFR –** instrument flight rules

(13) **IR –** instrument rating

(14) **IS –** Implementing Standards

(15) **PIC –** pilot-in-command

(16) **PDCA –** plan-do-check-act

(17) **RPA –** remotely piloted aircraft

(18) **RPAS –** remotely piloted aircraft systems

(19) **SMS –** safety management system

3.1.1.4 EXEMPTION AUTHORITY

(a) The Authority may, upon consideration of the circumstances of a particular training organisation, issue to that training organisation an exemption providing relief from specified sections of this part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.

(b) The Authority may terminate or amend an exemption at any time.

(c) A request for exemption shall be made in accordance with the requirements of Part 1 of these regulations.

(d) Each training organisation that receives an exemption shall have a means of notifying the appropriate management and personnel of the exemption.

3.2 CERTIFICATION OF A TRAINING ORGANISATION AND CONTINUED VALIDITY OF THE CERTIFICATE

3.2.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for the certification of a training organisation and the continued validity of the ATO certificate issued by the Authority.

3.2.1.2 GENERAL

(a) The Authority may approve an ATO to provide the following:

(1) Any training activity that leads towards the issuance of a licence, rating, authorisation, or approval under these regulations;

(2) Training services necessary for an operator to meet the requirements of Part 9 of these regulations;

(3) Training services necessary for a maintenance organisation to meet the requirements of Part 6 of these regulations;

(4) Special curricula training designed to meet:

(i) Qualification-based training requirements, including those deemed acceptable through the approval of an “alternative means of compliance” mechanism; or

(ii) Competency-based training and assessment requirements; or

(iii) Those training requirements deemed acceptable through the approval of an “alternative means of compliance” mechanism.

(b) No person may operate as an ATO without, or in violation of, an ATO certificate and the training specifications issued under this part.

3.2.1.3 ATO CERTIFICATE

(a) The ATO certificate issued to a training organisation by Curaçao will consist of two documents:

(1) A one-page certificate for public display signed by the Authority; and

(2) Training specifications signed by the accountable manager and the Authority.

(b) An ATO shall conduct only the training, checking, and testing, or part thereof, for which it is rated and that is within the limitations placed in its training specifications.

(c) The certificate issued to an ATO by Curaçao will contain the following items and will be issued on a form and in a manner as prescribed in IS 3.2.1.3:

(1) The certificate number specifically assigned to the ATO;

(2) The name and location (principal business address) of the ATO;

(3) The certification Statement of Authority

(4) Rating(s) relating to the course(s) to be taught;

(5) The period of validity;

(6) The date of issue; and

(7) The signature, printed name, and title of the appropriate Authority.

(d) The training specifications issued to an ATO by Curaçao will specify training programme requirements and authorise the conduct of training, checking, and testing with any limitations thereof, and will contain:

(1) The certificate number specifically assigned to the ATO;

(2) The type of training authorised, including approved courses;

(3) The authorisations for the ATO, including limitations and approvals;

(4) The name and address of any satellite training centers and the approved training offered at each location;

(5) The facilities and equipment required to conduct the authorised training;

(6) The personnel required to perform the applicable duties under this part;

(7) The signatures of the accountable manager and the Authority;

(8) The date of issue or revision; and

(9) Any other items the Authority may require or allow.

(e) The ATO shall display its ATO certificate in a place accessible to the public in the principal place of business of the training organisation.

(f) The certificate and training specifications issued to an ATO shall be available on the premises for inspection by the public and the Authority.

3.2.1.4 ADVERTISING

(a) No training organisation may advertise as an ATO certificated under this part until the Authority has issued an ATO certificate and associated training specifications to that organisation.

(b) No ATO may make, either orally or in writing, any statement about itself that is false or is designed to mislead any person.

(c) Whenever the advertising of a training organisation indicates that it is certificated under this part, the advertisement shall clearly state the ATO certificate number.

3.2.1.5 APPLICATION FOR AN ATO CERTIFICATE

(a) An application for an ATO certificate shall be made on a form and in a manner prescribed by the Authority.

(b) Each applicant shall submit an application for initial issue of an ATO certificate at least 120 calendar days before the beginning of any proposed training or 90 days before effecting an amendment to any approved training, unless a shorter filing period is approved by the Authority.

(c) An application shall include:

(1) A statement showing that the minimum qualification requirements for each management position are met or exceeded;

(2) A statement acknowledging that the organisation shall notify the Authority within 10 working days of any change made in the assignment of persons in the required management positions;

(3) The proposed training specifications requested by the organisation;

(4) The proposed location of each training facility and any satellite ATOs;

(5) The proposed courses to be taught at each location;

(6) The equipment at each location, including FSTDs and training aircraft; any aerodromes or sites to be used; and any remote pilot stations and training RPA;

(7) Two copies of the proposed ATO Procedures Manual;

(8) Two copies of each proposed training course curriculum, including syllabi, outlines, courseware, procedures, and documentation to support the curriculum for which approval is sought;

(9) Documentation of the quality system;

(10) A statement of the maximum number of students the organisation expects to teach at any one time;

(11) Documentation of the SMS required by Part 1 of these regulations;

(12) A Statement of Compliance with all applicable regulations for the proposed training, including pertinent subparts and each relevant section of the regulation, which shall be identified and accompanied by a brief description; and

(13) Any additional information the Authority requires the applicant to submit.

3.2.1.6 ISSUANCE OF AN ATO CERTIFICATE

(a) The issue of an ATO certificate by Curaçao shall be dependent upon the training organisation demonstrating compliance with the requirements of this part, the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority.

(b) The Authority may issue an ATO certificate if, after investigation, the Authority finds that the applicant:

(1) Meets the requirements of this part for the holder of an ATO certificate; and

(2) Is properly and adequately equipped to perform the training for which it seeks approval.

Note: If, under the Civil Aviation Safety Act, as amended, any fees are to be prescribed by the Authority for the ATO certification process, that requirement shall be set forth in this part.

3.2.1.7 DURATION AND RENEWAL OF AN ATO CERTIFICATE

(a) An ATO certificate, or any portion of an ATO certificate, issued to an ATO located either inside or outside Curaçao is effective from the date of issue until:

(1) The last day of the 12th month after the date on which the certificate was initially issued, subject to satisfactory compliance with the requirements of this part; or

(2) The last day of the 24th month after the date on which the certificate was renewed, subject to satisfactory compliance with the requirements of this part; or

(3) The ATO surrenders the certificate to the Authority; or

(4) The Authority suspends or revokes the certificate.

(b) The holder of an ATO certificate that has expired, has been surrendered, or has been suspended or revoked by the Authority shall return the certificate and training specifications to the Authority within 5 working days of expiration, surrender, or receipt from the Authority of notice of suspension or revocation.

(c) An ATO that applies for a renewal of its certificate in Curaçao shall submit its request for renewal no later than 90 days before the ATO's current certificate expires. If a request for renewal is not made within this period, the ATO shall follow the certification procedures for initial issuance as prescribed by the Authority.

3.2.1.8 CONTINUED VALIDITY OF AN ATO CERTIFICATE

(a) Unless the ATO certificate has previously been surrendered, superseded, suspended, or revoked, or has expired by virtue of exceeding any expiration date that may be specified in the certificate, the continued validity of the ATO certificate issued by Curaçao shall be dependent upon:

(1) The ATO remaining in compliance with the requirements of this part, the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority;
(2) The Authority being granted access to the ATO's facilities to determine continued compliance with the requirements of this part; and
(3) The payment of any charges prescribed by the Authority.

3.2.1.9 AUTHORITY TO INSPECT

(a) The Authority may, at any time, inspect an ATO on the ATO's premises to determine the organisation's continuing compliance with the requirements of this part.

(b) Inspections will be conducted at least annually.

(c) After an inspection is conducted, the ATO will be notified, in writing, of any deficiencies identified during the inspection.

(d) Inspections will also be performed on an applicant for, or the holder of, an ATO certificate held outside the authorising Contracting State. This inspection may be delegated to the Authority of the State where the ATO is located, provided an arrangement exists.

3.2.1.10 SUSPENSION OR REVOCATION OF AN ATO CERTIFICATE

(a) The Authority may suspend or revoke an ATO certificate if it is established that the ATO has not met, or no longer meets, the requirements of this part.

3.2.1.11 CHANGES TO THE ATO AND ATO CERTIFICATE AMENDMENTS

(a) To enable the Authority to determine continued compliance with the requirements of this part, the ATO shall provide written notification to the Authority for approval at least 90 days prior to a change to any of the following:

(1) The name of the organisation;

(2) The location of the organisation;

(3) The facilities, equipment, or personnel that may affect the ATO rating(s) issued;

(4) The rating(s) held by the organisation, whether granted by the Authority or held through an ATO certification issued by another Contracting State;

(5) Additional locations of the organisation;

(6) Items in the ATO Procedures Manual, including the syllabi and curricula;

(7) The accountable manager; or

(8) The list of management personnel as described in the ATO Procedures Manual.

(b) The Authority will amend the certificate if the ATO notifies the Authority of a change in:

(1) Location, facilities, or equipment;

(2) Additional locations of the organisation;

(3) Rating(s) issued, including deletions;

(4) Items in the ATO Procedures Manual, including the syllabi and curricula;

(5) The name of the organisation with same ownership; or

(6) Ownership.

(c) The Authority may amend the certificate if the ATO notifies the Authority of a change in:

(1) The accountable manager;

(2) The list of management personnel as described in the ATO Procedures Manual; or

(3) Other items in the ATO Procedures Manual, including the syllabi and curricula.

(d) When the Authority issues an amendment to an ATO's certificate because of new ownership of the ATO, the Authority will assign a new certificate number to the amended certificate.

(e) The Authority may:

(1) Prescribe, in writing, the conditions under which the ATO shall continue to operate during any period of implementation of the changes noted in paragraph 3.2.1.11(a) of this subsection; and

(2) Hold the ATO certificate in abeyance if the Authority determines that approval of amendments to the ATO certificate may be delayed; the Authority will notify the ATO, in writing, of the reasons for any such delay.

(f) If changes are made by the ATO to the items listed in paragraph 3.2.1.11(a) of this subsection without notification to the Authority or amendment of the ATO certificate by the Authority, the ATO certificate may be suspended or revoked by the Authority.

3.2.1.12 LOCATION OF THE ATO

(a) PRINCIPAL PLACE OF BUSINESS. An applicant for, or the holder of, an ATO certificate issued under this part shall establish and maintain a principal place of business office that is physically located at the address to be shown on its certificate.

(b) SATELLITE ATOs. An ATO may conduct training in accordance with a training programme approved by the Authority at a satellite ATO, provided that:

(1) The facilities, equipment, personnel, and course content of the satellite ATO meet the applicable requirements;

(2) The instructors at the satellite ATO are under the direct supervision of management personnel at the principal ATO; and

(3) The Authority has issued training specifications to the ATO that reflect the name and address of the satellite ATO and the approved courses offered at the satellite ATO.

(c) FOREIGN LOCATIONS OF ATOs. An ATO or a satellite ATO approved by the Authority may be located in a country outside Curaçao and shall be subject to all the applicable requirements of this part.

3.2.1.13 FACILITIES, EQUIPMENT, AND MATERIALS – GENERAL REQUIREMENTS

(a) The facilities and working environment of the ATO shall be appropriate for the task to be performed and shall be acceptable to the Authority.

(b) An ATO shall have available, or shall have access to, the necessary facilities, equipment, and materials to conduct the courses for which it is approved.

(c) Any training devices used by the ATO shall be qualified according to requirements established by the Authority, and their use shall be approved by the Authority to ensure that they are appropriate to the task.

(d) An ATO shall not make a substantial change in facilities, equipment, or materials that have been approved for a particular training programme unless that change is approved in advance by the Authority.

(e) The facility that is the ATO's principal place of business:

(1) Shall not be shared with, or used by, another ATO; and

(2) Shall be adequate to maintain the records required to operate the business of the ATO.

Note: ICAO Doc 9625, Manual of Criteria for the Qualification of Flight Simulation Training Devices, provides guidance on the approval of FSTDs.

3.2.1.14 PERSONNEL – GENERAL REQUIREMENTS

(a) The ATO shall nominate a person responsible for ensuring that it is in compliance with the requirements for an approved organisation.

(b) The ATO shall employ the necessary personnel to plan, perform, and supervise the training to be conducted.

(c) The competence of instructional personnel shall be in accordance with procedures an of a level acceptable to the Authority.

(d) The ATO shall ensure that all instructional personnel receive initial and recurrent training appropriate to their assigned duties and responsibilities.

(e) The training programme established by the ATO shall include training in knowledge and skills related to human performance.

(f) The training programme for ATO personnel shall be contained in the ATO Procedures Manual.

Note: Guidance on designing training programmes to develop knowledge and skills in human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

3.2.1.15 RECORD KEEPING – GENERAL REQUIREMENTS

(a) STUDENT RECORDS.

(1) The ATO shall retain detailed student records to show that all requirements of the training course have been met as approved by the Authority.

(2) These records shall be kept for a minimum period of 2 years after completion of the training.

(b) INSTRUCTIONAL AND EXAMINING PERSONNEL RECORDS.

(1) The ATO shall maintain a system for recording the qualifications and training of instructional and examining personnel, where appropriate.

(2) These records shall be kept for a minimum period of 2 years after the instructor or examiner ceases to perform a function for the ATO.

3.2.1.16 ATO APPROVED FOR TESTING

(a) The Authority may authorise an ATO to conduct the testing required for the issuance of a licence or rating.

(b) The ATO personnel authorised to conduct the testing shall be approved by the Authority.

3.2.1.17 QUALITY SYSTEM AND QUALITY ASSURANCE PROGRAMME

(a) The ATO shall establish a quality system and a quality assurance programme, acceptable to the Authority, that shall ensure that training and instructional practices comply with all relevant requirements.

(b) The ATO quality system and quality assurance programme shall be established in accordance with the instruction and information prescribed in IS 3.2.1.17.

3.2.1.18 ATO PROCEDURES MANUAL – GENERAL REQUIREMENTS

(a) The ATO shall provide an ATO Procedures Manual, approved by the Authority, for the use and guidance of personnel concerned. This manual may be issued in separate parts and shall contain at least the following information:

(1) A general description of the scope of training authorised under the training specifications issued to the ATO;

(2) The content of the training programmes offered, including the courseware and equipment to be used;

(3) A description of the organisation's quality system;

(4) A description of the organisation's facilities;

(5) The name, duties, and qualifications of the person designated as the accountable manager;

(6) A description of the duties and qualifications of the personnel responsible for planning, performing, and supervising the training;

(7) A description of the procedures used to establish and maintain the competence of instructional personnel;

(8) A description of the method used for the completion and retention of the training records;

(9) A description, when applicable, of additional training needed to comply with an operator's or maintenance organisation's procedures and requirements; and

(10) When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with 3.2.1.16 of this part, a description of the selection, role, and duties of authorised personnel, as well as the applicable requirements established by the Authority.

(b) The ATO shall ensure that the ATO Procedures Manual is amended as necessary to keep the information contained therein up-to-date.

(c) The ATO shall promptly furnish copies of all amendments to the ATO Procedures Manual to the Authority and all organisations and personnel to which the manual has been issued.

3.2.1.19 DUTY PERIOD LIMITATIONS

(a) A person who holds an FI licence shall not conduct more than 8 hours of flight training in any 24-consecutive-hour period.

(b) Excluding briefing and debriefing, an FSTD instructor shall not conduct more than 8 hours of instruction in any 24-consecutive-hour period.

(c) A student in a certificated AMT school may not be required to attend classes of instruction more than 8 hours in any day or more than 6 days or 40 hours in any 7-day period.

3.2.1.20 SAFETY MANAGEMENT SYSTEM

(a) An ATO shall implement an SMS acceptable to the Authority as outlined in 1.6 of these regulations.

3.2.1.21 OUTSOURCING TO THIRD-PARTY PROVIDERS

(a) The ATO may outsource courseware, facilities and equipment, and instructional personnel to a third party, provided that the ATO has been approved by the Authority:

(1) For the training that is to be conducted; and

(2) To contract with the third party to be used.

(b) The ATO shall be accountable for the quality of third-party providers, including the suitability of courseware, facilities and equipment, and instructional personnel used to meet the ATO approved programmes.

3.3 ADDITIONAL REQUIREMENTS FOR INSTRUCTION – FLIGHT CREW TRAINING

3.3.1 GENERAL

(a) In addition to the requirements of 3.2 of this part, this subpart prescribes requirements for an ATO teaching flight crew curricula.

3.3.2 CURRICULUM APPROVAL FOR FLIGHT CREW TRAINING

3.3.2.1 TRAINING COURSES

(a) The Authority may approve an applicant for, or the holder of, an ATO certificate to conduct the following flight crew courses of instruction, as provided in the training specifications and provided the applicant meets the requirements of this part and Part 2 of these regulations:

(1) Private pilot licence course;

(2) CPL course;

(3) IR course;

(4) CPL/IR multi-engine/CRM-integrated course;

(5) Multi-crew pilot licence course;

(6) Airline transport pilot licence course;

(7) FE licence course;

(8) Flight navigator licence course;

(9) Class rating course;

(10) Type rating course;

(11) CRM course;

(12) FI course;

(13) Instructor course for additional type or class ratings;

(14) Instructor course for flight simulation;

(15) Refresher courses;

(16) RPAS course;

(17) Instructor course for RPAS training;

(18) Instructor course for RPAS flight simulation; and

(19) Other courses, as the Authority may approve.

Note 1: See ICAO Doc 7192, Part B-5, Integrated Commercial Pilot Course, Volumes 1 and 2.

Note 2: To allow courses to be tailored to the specific training needs of students and to be updated promptly, course contents are not specified in detail in this part. For examples of course curricula, see the ICAO Doc 7192 Training Manual series; the 14 CFR part 141 appendices; and 14 CFR part 121, Appendix E.

3.3.2.2 TRAINING COURSE APPROVAL – QUALIFICATION-BASED AND ALTERNATIVE MEANS OF COMPLIANCE

(a) An applicant for, or the holder of, an ATO certificate shall apply to the Authority for approval for each training course to be offered or amended.

(1) The applicant or ATO shall submit two copies of the training course or amendment to the Authority as part of the application.

(2) The applicant or ATO shall submit the application to the Authority at least 30 days before any instruction under the training course is scheduled to begin.

(b) Except as provided in 3.3.2.3 of this part, each training course for which approval is requested shall meet the minimum ground and flight training time requirements specified in Part 2 of these regulations for the licence, rating, or authorisation sought.

(c) Each training course for which approval is requested shall contain:

(1) A description of each room used for ground training, including the room size and the maximum number of students that may be trained in the room at one time, unless the course is provided via an internet-based training medium;

(2) A description of each type of audiovisual aid, projector, tape recorder, mock-up, chart, aeronautical product, and other special training aid used for ground training;

(3) A description of each FSTD used for training;

(4) A list of the aerodromes at which training flights originate and a description of the facilities, including pilot briefing areas that are available for use by the ATO's students and personnel at each of those aerodromes;

(5) A description of the type of aircraft, including any special equipment used for each phase of training;

(6) The minimum qualifications and ratings for each instructor assigned to ground or flight training, or to RPAS training; and

(7) A training syllabus that includes the following information:

(i) The prerequisites for enrolling in the ground and flight portion of the course, which include the pilot licence and rating (if required by this part), pilot training, pilot experience, and pilot knowledge;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) A description of what the course is expected to accomplish with regard to student learning;

(iv) The expected accomplishments and the standards for each stage of training; and

(v) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

3.3.2.3 TRAINING COURSE APPROVAL – ALTERNATIVE MEANS OF COMPLIANCE AND COMPETENCY-BASED TRAINING AND ASSESSMENT

(a) An ATO may request and receive initial approval for a period of not more than 24 calendar months for any training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that:

(1) The ATO shows that the instruction will provide a level of competency at least equal to the minimum experience requirements for personnel not receiving such instruction; and

(2) The following conditions are met:

(i) The ATO holds an ATO certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(ii) In addition to the information required by paragraph 3.3.2.2(c) of this part, the training course specifies planned ground and flight training time requirements for the course;

(iii) The ATO shall not request that the training course be approved for examining authority, nor may that ATO hold examining authority for that course; and

(iv) The knowledge test and/or skill test for the course shall be given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO.

(b) An ATO may request and receive final approval for any training course under this part that does not meet the minimum hours for a licence prescribed by Part 2 of these regulations, provided that the following conditions are met:

(1) The ATO has held initial approval for that training course for at least 24 calendar months;

(2) The ATO has:

(i) Instructed at least 10 students in that training course within the preceding 24 calendar months and has recommended those students for a pilot, FI, or GI licence or rating; and

(ii) At least 80 per cent of those students passed the knowledge or skill test, as appropriate, on the first attempt, and that test was given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO;

(3) In addition to the information required by paragraph 3.3.2.2(c) of this part, the training course specifies planned ground and flight training time requirements for the course; and

(4) The ATO shall not request that the training course be approved for examining authority, nor may that ATO hold examining authority for that course.

3.3.3 PERSONNEL REQUIRED FOR FLIGHT CREW TRAINING

(a) An applicant for, or the holder of, an ATO certificate for instructing flight crew curricula shall have the following personnel:

(1) A Director of Training;

(2) A CFI, as applicable;

(3) A CGI, as applicable; and

(4) An adequate number of GIs and FIs relevant to the courses provided.

(b) Each instructor to be used for training shall have received the appropriate training and shall hold the appropriate licences and/or ratings as required by Part 2 of these regulations.

(c) The duties and qualifications of the personnel listed in paragraph 3.3.3(a) of this subsection are prescribed in IS 3.3.3.

3.3.4 FACILITIES AND EQUIPMENT REQUIRED FOR FLIGHT CREW TRAINING

3.3.4.1 TRAINING FACILITIES

(a) An applicant for, or the holder of, an ATO certificate instructing flight crew curricula shall have facilities, as determined by the Authority, appropriate for the maximum number of students expected to be taught at any time, as follows:

(1) Flight operations facilities:

(i) An operations room;

(ii) A flight planning room;

(iii) Adequate briefing rooms; and

(iv) Offices for the instructors.

(2) Knowledge instruction facilities, including:

(i) Classroom accommodations;

(ii) Suitable demonstration equipment;

(iii) A radiotelephony training and testing facility;

(iv) A library; and

(v) Offices for the instructors.

3.3.4.2 TRAINING AIRCRAFT AND REMOTELY PILOTED TRAINING AIRCRAFT

(a) An applicant for, or the holder of, an ATO certificate shall ensure that each aircraft used for flight instruction and solo flights meets the following requirements:

(1) Except for flight instruction and solo flights in a curriculum for agricultural aircraft operations, external-load operations, and similar aerial work operations, all aircraft shall have a Curaçao standard certificate of airworthiness or a foreign equivalent of a Curaçao standard certificate of airworthiness, acceptable to the Authority.

(2) The aircraft shall be maintained and inspected in accordance with 8.3 of these regulations and an approved maintenance programme.

(3) The aircraft shall be equipped as provided in the training specifications for the approved course for which it is used.

(4) Except as provided in paragraph 3.3.4.2(a)(5) of this subsection, each aircraft used in flight training shall have at least two pilot stations with engine-power controls that can be easily reached and operated in a normal manner from both pilot stations.

(5) Aeroplanes with controls such as nose-wheel steering, switches, fuel selectors, and engine air flow controls that are not easily reached and operated in a conventional manner by both pilots may be used for flight instruction if the certificate holder determines that the flight instruction may be conducted in a safe manner considering the location of controls and their non-conventional operation, or both.

(b) An applicant for, or the holder of, an ATO certificate shall ensure that each RPA used for RPAS flight instruction and solo flights meets the following requirements:

(1) Except for flight instruction and solo flights in a curriculum for agricultural aircraft operations, external-load operations, and similar aerial work operations, the RPA shall have a Curaçao special certificate of airworthiness, “experimental certificate,” or a foreign equivalent of a Curaçao experimental certificate acceptable to the Authority.

(2) The RPA shall be maintained and inspected in accordance with Part 8 of these regulations and an approved maintenance programme.

(3) The RPA shall be equipped as provided in the training specifications for the approved course for which it is used.

(4) Each RPA used in a course involving IFR en route operations and instrument approaches shall be equipped and maintained for IFR operations. For manoeuvring of an RPA by reference to instruments, the RPA may be equipped as provided in the approved course of training.

3.3.4.3 FLIGHT SIMULATION TRAINING DEVICES

(a) An applicant for, or the holder of, an ATO certificate, approved to use FSTDs, shall show that each FSTD used for training and checking will be or is specifically qualified and approved by the Authority for:

(1) Each manoeuvre and procedure for the make, model, and series of aircraft, set of aircraft, aircraft type simulated, or RPAS, as applicable; and

(2) Each training programme or training course in which the FSTD is used.

(b) Each qualified and approved FSTD used by an ATO shall:

(1) Be maintained to ensure the reliability of the performances, functions, and all other characteristics that were required for its qualification;

(2) Be modified to conform with any modification to the aircraft or RPAS being simulated if the modification results in changes to performance, function, or other characteristics required for qualification;

(3) Be given a functional pre-flight check each day before being used; and

(4) Have a discrepancy log in which the instructor or evaluator, at the end of each training session, enters each discrepancy.

3.3.4.4 AERODROMES AND SITES

(a) Each applicant for, and holder of, an ATO certificate shall show that it has continuous use of each aerodrome and site (for helicopter training) at which training flights originate, and that the aerodrome has an adequate runway and the necessary equipment.

(b) The base aerodrome, and any alternative base aerodrome, at which flight crew training is being conducted shall have at least one runway or take-off area that allows training aircraft to make a normal take-off or landing at the maximum certificated take-off mass or maximum certificated landing mass under the following conditions:

(1) Under wind conditions of not more than 15 kt;

(2) At temperatures in the operating area equal to the mean high temperature for the hottest month of the year;

(3) If applicable, with the powerplant operation and landing gear and flap operation recommended by the manufacturer; and

(4) In the case of a take-off:

(i) Clearing all obstacles in the take-off flight path by at least 15 m (50 ft); and

(ii) With a smooth transition from lift-off to the best rate of climb speed without exceptional piloting skills or techniques.

(c) Each aerodrome shall:

(1) Have a wind direction indicator that is visible at ground level from the ends of each runway;

(2) Have adequate runway electrical lighting if used for night training; and

(3) Have a traffic direction indicator when:

(i) The aerodrome does not have an operating control tower; and

(ii) Traffic and wind advisories are not available.

(d) Except as specified in paragraph 3.3.4.4(e) of this subsection, each aerodrome used for night training flights shall have permanent runway lights.

(e) An aerodrome or seaplane base used for night training flights in seaplanes may be approved by the Authority to use adequate, non-permanent lighting or shoreline lighting.

(f) Training sites shall be available for:

(1) Confined area operation;

(2) Simulated engine-off autorotation; and

(3) Sloping ground operation.

3.3.5 ADDITIONAL SPECIFIC OPERATING RULES FOR FLIGHT CREW TRAINING

3.3.5.1 ATO PROCEDURES MANUAL – FLIGHT CREW TRAINING

(a) Each applicant for, or holder of, an ATO certificate shall prepare and maintain an ATO Procedures Manual containing information and instructions to enable flight crew instructional personnel to perform their duties and to provide guidance to students on how to comply with flight crew training course requirements.

(b) Documentation of each proposed flight crew training course curriculum, including syllabi, outlines, courseware, procedures, and documentation shall be contained in the ATO Procedures Manual.

(c) The ATO shall ensure that the flight crew training curricula contained in the ATO Procedures Manual are amended as necessary to keep the information contained therein up to date.

(d) Copies of all amendments to the flight crew training curricula contained in the ATO Procedures Manual shall be furnished promptly by the ATO to all persons or organisations to whom the manual has been issued.

(e) Detailed requirements pertaining to the flight crew training curricula that shall be contained in the ATO Procedures Manual are prescribed in IS 3.3.5.1.

3.3.5.2 RECORD KEEPING

(a) STUDENTS. An ATO that is approved to conduct flight crew training shall maintain a record for each trainee that contains:

(1) The name of the trainee;

(2) A copy of the trainee's airman certificate, if any, and any medical certificate;

(3) The name of the course and the make and model of flight training equipment used;

(4) The trainee's prerequisite experience and course time completed;

(5) The trainee's performance on each lesson and the name of the instructor providing instruction;

(6) The date and result of each end-of-course skill test and the name of the examiner conducting the test; and

(7) The number of hours of additional training that was accomplished after any unsatisfactory skill test.

(b) ATO PERSONNEL. An ATO that is approved to conduct flight crew training shall maintain a record for each instructor approved to instruct a flight crew training course approved in accordance with this subpart that indicates that the instructor has complied with all applicable instructor requirements of these regulations.

(c) RECORD RETENTION. An ATO shall keep all records for a minimum period of 2 years:

(1) For students, from the date of completion of flight crew training, testing, or checking; and

(2) For ATO personnel, from the date of the last employment.

(d) The ATO shall make the flight crew training records available to the Authority, upon request and within a reasonable time, and shall keep the records:

(1) For students, at the ATO or satellite ATO where the flight crew training, testing, or checking occurred; and

(2) For ATO personnel, at the ATO or satellite ATO where the person is employed.

(e) The ATO shall provide to a trainee, upon request and within a reasonable time, a copy of the trainee's flight crew training records.

3.3.5.3 GRADUATION CERTIFICATE

(a) An ATO shall issue a graduation certificate to each student who completes its approved flight crew training course.

(b) The graduation certificate shall be issued to the student upon completion of the flight crew training course and shall contain at least the following information:

(1) The name and certificate number of the ATO;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages;

(6) A certification of the information contained on the graduation certificate by the chief instructor for that course of training; and

(7) A statement showing the cross-country training that the student received in the course of training.

3.3.5.4 EXAMINING AUTHORITY

(a) An ATO shall meet the following prerequisites to receive initial approval for examining authority:

(1) The ATO shall complete the application for examining authority on a form and in a manner prescribed by the Authority;

(2) The ATO shall hold an ATO certificate and rating issued under this part;

(3) The ATO shall have held the rating in which examining authority is sought for at least 24 consecutive calendar months preceding the month of application for examining authority;

(4) The training course for which examining authority is requested may not be a course that is approved without meeting the minimum ground and flight training time requirements of this part; and

(5) Within 24 calendar months before the date of application for examining authority, at least 90 per cent of the students in the ATO shall have passed, on the first attempt, the required knowledge or skill test, or any combination thereof, for the licence or rating for which examining authority is sought, and that test was given by:

(i) A licensed inspector; or

(ii) A designated examiner who is not an employee of the ATO.

(b) The examining authority of the ATO is valid for 24 months, unless suspended or revoked by the Authority, and may be renewed upon request to the Authority by the ATO.

(c) An ATO that holds examining authority may recommend a person who graduated from its course for the appropriate knowledge or skill test.

(d) An ATO that holds examining authority will administer the tests or checks as required by Parts 2 or 8 of these regulations and as appropriate to the licence or rating sought.

(e) An ATO that holds examining authority shall:

(1) Maintain a record of all temporary airman licences or ratings it issues, which shall consist of the following information in chronological order:

(i) The date the temporary airman licence was issued;

(ii) The name of the student to whom the temporary airman licence was issued, and that student's permanent mailing address and telephone number;

(iii) The training course from which the student graduated;

(iv) The name of the person who conducted the knowledge or skill test;

(v) The type of temporary airman licence or rating issued to the student; and

(vi) The date the student's airman application file was sent to the Authority for processing for a permanent airman licence;

(2) Maintain a copy of the record containing each student's graduation certificate, airman application, temporary airman licence, superseded airman licence (if applicable), and knowledge test or skill test results; and

(3) Retain these records for 2 years and make them available to the Authority upon request. These records shall be surrendered to the Authority when the ATO ceases to have examining authority.

3.3.5.5 STUDENT TRANSFER OF CREDIT BETWEEN ATOS

(a) A person who transfers from one ATO to another ATO may receive credit for that previous flight crew training, provided the following requirements are met:

(1) The maximum credited training time does not exceed one-half of the receiving ATO's curriculum requirements;

(2) The person completes a knowledge and skill test conducted by the receiving ATO for the purpose of determining the amount of experience and knowledge to be credited;

(3) The receiving ATO determines, based on the person's performance on the knowledge and skill test required by paragraph 3.3.5.5(a)(2) of this subsection, the amount of credit to be awarded, and records that credit in the person's training record;

(4) The person who requests credit for previous experience and knowledge obtained the experience and knowledge from another ATO approved training course; and

(5) The receiving ATO retains a copy of the person's training record from the previous ATO.

3.3.5.6 INSPECTION OF AN ATO

(a) Each ATO shall allow the Authority to inspect the ATO personnel, facilities, equipment, materials, and records at any reasonable time and in any reasonable place to determine the ATO's compliance with these regulations and with the ATO certificate and training specifications issued to the ATO.

3.4 ADDITIONAL REQUIREMENTS FOR INSTRUCTION – MAINTENANCE TRAINING

3.4.1 GENERAL

(a) In addition to the requirements of 3.2 of this part, this subpart prescribes requirements for an ATO instructing maintenance curricula.

3.4.2 CURRICULUM APPROVAL FOR MAINTENANCE TRAINING

3.4.2.1 TRAINING COURSES

(a) The Authority may approve an applicant for, or the holder of, an ATO certificate to conduct the following courses of instruction, as provided in the training specifications and provided the applicant meets the requirements of this part and Part 2 of these regulations:

(1) AMT licence course;

(2) Airframe rating course;

(3) Powerplant rating course;

(4) Airframe and powerplant combined ratings course;

(5) Avionics rating course;

(6) RPAS maintenance course; and

(7) Other courses, as the Authority may approve.

3.4.2.2 TRAINING COURSE APPROVAL – QUALIFICATION-BASED AND ALTERNATIVE MEANS OF COMPLIANCE

(a) An applicant for, or the holder of, an ATO certificate shall apply to the Authority for approval for each maintenance training course to be offered or amended.

(1) The applicant or ATO shall submit two copies of each maintenance training course or amendment to the Authority as part of the application.

(2) The applicant or ATO shall submit the application to the Authority at least 30 days before any training under the course is scheduled to begin.

(b) Except as provided in 3.4.2.3 of this part, each maintenance training course for which approval is requested shall meet the minimum maintenance training time requirements specified in Part 2 of these regulations for the licence, rating, or authorisation sought.

(c) Each maintenance training course for which approval is requested shall contain:

(1) A description of each room used for maintenance training, including the room size and the maximum number of students that may be trained in the room at one time unless the course is provided via an internet-based training medium;

(2) A description of each type of audiovisual aid, projector, tape recorder, mockup, chart, aeronautical product, and other special training aid used for maintenance training;

(3) A description of the minimum equipment to be used in each course;

(4) The minimum qualifications and ratings for each instructor assigned to maintenance training, including initial and recurrent training; and

(5) A training syllabus that includes the following information:

(i) The prerequisites for enrolling in the course;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) The subjects and items to be covered and the level of proficiency required;

(iv) For each subject, the proportions of theory and other instruction to be given;

(v) A description of what the course is expected to accomplish with regard to student learning;

(vi) The expected accomplishments and the standards for each stage of training, including the required practical projects to be completed; and

(vii) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

3.4.2.3 TRAINING COURSE APPROVAL – ALTERNATIVE MEANS OF COMPLIANCE AND COMPETENCY-BASED TRAINING AND ASSESSMENT

(a) An ATO may request and receive initial approval for a period of not more than 24 calendar months for any maintenance training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that:

(1) The ATO shows that the training will provide a level of competency at least equal to the minimum experience requirements for personnel not receiving such instruction; and

(2) The following conditions are met:

(i) The ATO holds an ATO certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(ii) In addition to the information required by paragraph 3.4.2.2(c) of this part, the training course specifies planned maintenance training time requirements for the course;

(iii) The ATO shall not request that the maintenance training course be approved for examining authority, nor may that ATO hold examining authority for that course; and

(iv) The knowledge test and/or skill test for the maintenance training course shall be given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO.

(b) An ATO may request and receive final approval for any maintenance training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that the following conditions are met:

(1) The ATO has held initial approval for that maintenance training course for at least 24 calendar months;

(2) The ATO has:

(i) Instructed at least 10 students in that maintenance training course within the preceding 24 calendar months and has recommended those students for an AMT certificate or rating; and

(ii) At least 80 per cent of those students passed the knowledge or skill test, as appropriate, on the first attempt, and that test was given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO;

(3) In addition to the information required by paragraph 3.4.2.2(c) of this part, the training course specifies planned theoretical knowledge and practical training time requirements for the course; and

(4) The ATO shall not request that the maintenance training course be approved for examining authority, nor may that ATO hold examining authority for that course.

3.4.3 PERSONNEL REQUIRED FOR MAINTENANCE TRAINING

(a) An applicant for, or the holder of, an ATO certificate for instructing maintenance curricula shall have the following personnel:

(1) A Director of Training; and

(2) An adequate number of instructors relevant to the courses provided.

(b) Each instructor to be used for maintenance training shall have received the appropriate training and shall hold the appropriate licences and/or ratings as required by Part 2 of these regulations.

(c) The duties and qualifications of training and instruction personnel listed in paragraph 3.4.3(a) of this subsection are as follows:

(1) DIRECTOR OF TRAINING. The Director of Training shall have overall responsibility for ensuring satisfactory integration of theoretical knowledge instruction and practical training and for supervising the progress of individual students. The Director of Training shall have extensive experience in training as an instructor for AMT licensing and shall possess a sound managerial capability.

(2) INSTRUCTORS.

(i) Each ATO shall provide the number of instructors holding appropriate licences and ratings, issued under Part 2 of these regulations, that the Authority determines is necessary to provide adequate instruction and supervision of the students.

(ii) An ATO may provide specialized instructors who are not licensed, but who are approved in accordance with Part 2 of these regulations, to teach mathematics, physics, drawing, basic electricity, basic hydraulics, and similar subjects.

3.4.4 FACILITIES, EQUIPMENT, AND MATERIALS REQUIRED FOR MAINTENANCE TRAINING

(a) An applicant for, or the holder of, an ATO certificate shall have facilities, equipment, and materials, as determined by the Authority, appropriate for the maximum number of students expected to be taught at any time, as follows:

(1) An enclosed classroom;

(2) Suitable facilities arranged to assure proper separation from the working space, for parts, tools, materials, and similar articles;

(3) A suitable area for the application of finishing materials, including paint spraying;

(4) Suitable areas equipped with washtank and degreasing equipment with air pressure or other adequate cleaning equipment;

(5) Suitable facilities for running engines;

(6) A suitable area with adequate equipment, including benches, tables, and test equipment, to disassemble, service, and inspect:

(i) Ignition systems, electrical equipment, and appliances;

(ii) Carburettors and fuel systems; and

(iii) Hydraulic and vacuum systems for aircraft, aircraft engines, and their appliances.

(7) Suitable space with adequate equipment, including tables, benches, stands, and jacks, for disassembling, inspecting, and rigging aircraft and RPAS; and

(8) Suitable space with adequate equipment for disassembling, inspecting, assembling, troubleshooting, and timing engines.

(b) An applicant for, or the holder of, an ATO certificate with approved AMT courses shall have and maintain the following instructional equipment, appropriate to the rating sought:

(1) Various types of aeronautical products (including propellers) of a quantity and type suitable to complete the practical projects required by the approved training programme; and

(2) At least one aircraft of a type acceptable to the Authority.

(c) An applicant for, or the holder of, an ATO certificate with an AMT rating shall have aeronautical products to be used for instruction and from which students will gain practical working experience. The applicant or ATO shall ensure that the aeronautical products are sufficiently diversified as to show the different methods of construction, assembly, inspection, and operation when installed in an aircraft for use.

(d) An applicant for, or the holder of, an ATO certificate with an AMT rating, or an applicant seeking an additional AMT rating, shall have at least the facilities, equipment, and materials appropriate to the rating sought.

(e) An applicant for, or the holder of, an ATO certificate with an AMT rating shall maintain, on the premises and under the full control of the ATO, an adequate supply of materials, special tools, and shop equipment used in constructing and maintaining aircraft, appropriate to the approved training programme of the ATO, in order to assure that each student will be properly instructed.

(f) An ATO may not make a substantial change in facilities, equipment, or materials that have been approved for a particular training programme unless that change is approved by the Authority in advance.

3.4.5 ADDITIONAL SPECIFIC OPERATING RULES FOR MAINTENANCE TRAINING

3.4.5.1 ATO PROCEDURES MANUAL – MAINTENANCE TRAINING

(a) Each applicant for, or holder of, an ATO certificate shall prepare and maintain an ATO Procedures Manual containing information and instructions to enable maintenance instructional personnel to perform their duties and to give guidance to students on how to comply with course requirements.

(b) Documentation of each proposed maintenance training course curriculum, including syllabi, outlines, courseware, procedures, and documentation, shall be contained in the ATO Procedures Manual.

(c) The ATO shall ensure that the maintenance training curricula contained in the ATO Procedures Manual are amended as necessary to keep the information contained therein up-to-date.

(d) Copies of all amendments to the maintenance training curricula contained in the ATO Procedures Manual shall be furnished promptly by the ATO to all persons or organisations to which the manual has been issued.

(e) Detailed requirements pertaining to the maintenance training curricula that shall be contained in the ATO Procedures Manual are prescribed in IS 3.4.5.1.

3.4.5.2 RECORD KEEPING

(a) STUDENTS. An ATO that is approved to conduct maintenance training shall maintain a record for each trainee that contains:

(1) The name of the trainee;

(2) A copy of the trainee's airman certificate, if any;

(3) The name of the course and the instruction credited;

(4) The trainee's prerequisite experience and course time completed;

(5) The trainee's performance on each lesson and the name of the instructor providing the instruction;

(6) The date and result of each end-of-course test and the name of the examiner conducting the test;

(7) The number of hours of additional training accomplished after any unsatisfactory test; and

(8) A current progress chart or individual progress record for each student, showing the practical projects or laboratory work completed, or to be completed, in each subject.

(b) ATO PERSONNEL. An ATO that is approved to conduct maintenance training shall maintain a record for each instructor approved to instruct a course approved in accordance with this subpart that indicates that the instructor has complied with all applicable instructor requirements of these regulations.

(c) RECORD RETENTION. An ATO shall keep all maintenance training records for a minimum period of 2 years:

(1) For students, from the date after completion of maintenance training, testing, or checking; and

(2) For ATO personnel, from the date of the last employment.

(d) The ATO shall make the maintenance training records available to the Authority, upon request and within a reasonable time, and shall keep the records:

(1) For students, at the ATO or satellite ATO where the maintenance training, testing, or checking occurred; and

(2) For ATO personnel, at the ATO or satellite ATO where the person is employed.

(e) The ATO shall provide to a trainee, upon request and within a reasonable time, a copy of the trainee's maintenance training records.

3.4.5.3 GRADUATION CERTIFICATE

(a) An ATO shall issue a graduation certificate to each student who completes its approved course of training.

(b) The graduation certificate shall be issued to the student upon completion of the course of training and shall contain at least the following information:

(1) The name and certificate number of the ATO;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages; and

(6) A certification of the information contained on the graduation certificate by the Director of Training for that course of training.

3.4.5.4 EXAMINING AUTHORITY

(a) An ATO shall meet the following prerequisites to receive initial approval for examining authority:

(1) The ATO shall complete the application for examining authority on a form and in a manner prescribed by the Authority;

(2) The ATO shall hold an ATO certificate and rating issued under this part;

(3) The ATO shall have held the rating in which examining authority is sought for at least 24 consecutive calendar months preceding the month of application for examining authority; and

(4) Within 24 calendar months before the date of application for examining authority, at least 90 per cent of the students in the ATO shall have passed, on the first attempt, the required knowledge or skill test, or any combination thereof, for the licence or rating for which examining authority is sought, and that test shall have been given by:

(i) A licensed inspector; or

(ii) A designated examiner who is not an employee of the ATO.

(b) The examining authority of the ATO is valid for 24 months, unless suspended or revoked by the Authority, and may be renewed upon request to the Authority by the ATO.

(c) An ATO that holds examining authority may recommend a person who graduated from its course for the appropriate knowledge or skill test.

(d) An ATO that holds examining authority will administer the tests as required by Part 2 of these regulations and as appropriate to the licence or rating sought.

(e) An ATO that holds examining authority may conduct knowledge and skill tests on a progressive schedule if approved by the Authority. This may be necessary due to the length and complexity of an inclusive maintenance training programme.

(f) An ATO that holds examining authority shall:

(1) Maintain a record of all temporary licences or ratings it issues, which shall consist of the following information in chronological order:

(i) The date the temporary licence was issued;

(ii) The name of the student to whom the temporary certificate was issued and that student's permanent mailing address and telephone number;

(iii) The training course from which the student graduated;

(iv) The name of the person who conducted the knowledge or skill test;

(v) The type of temporary licence or rating issued to the student; and

(vi) The date the student’s application file was sent to the Authority for processing for a permanent licence;

(2) Maintain a copy of the record containing each student's graduation certificate, application, temporary licence, superseded licence (if applicable), and knowledge test or skill test results; and

(3) Retain these records for 2 years and make them available to the Authority upon request. These records shall be surrendered to the Authority when the ATO ceases to have examining authority.

3.4.5.5 STUDENT TRANSFER OF CREDIT BETWEEN ATOS

(a) A person who transfers from one ATO to another ATO may receive credit for that previous maintenance training, provided the following requirements are met:

(1) The maximum credited training time does not exceed one-half of the receiving ATO’s curriculum requirements for the licence or rating;

(2) The person completes a knowledge and skill test conducted by the receiving ATO for the purpose of determining the amount of experience and knowledge to be credited;

(3) The receiving ATO determines, based on the person's performance on the knowledge and skill test required by paragraph 3.4.5.5(a)(2) of this subsection, the amount of credit to be awarded and records that credit in the person's training record; and

(4) The receiving ATO retains a copy of the person's training record from the previous ATO.

3.4.5.6 INSPECTION OF AN ATO

(a) Each ATO shall allow the Authority to inspect the ATO facilities, equipment, materials, and records at any reasonable time and in any reasonable place to determine the ATO's compliance with these regulations and the ATO certificate and training specifications issued to the ATO.

3.5 ADDITIONAL REQUIREMENTS FOR INSTRUCTION – ATC TRAINING

3.5.1 GENERAL

(a) In addition to the requirements of 3.2 of this part, this subpart prescribes requirements for an ATO instructing ATC curricula.

3.5.2 CURRICULUM APPROVAL FOR ATC TRAINING

3.5.2.1 TRAINING COURSES

(a) The Authority may approve an applicant for, or the holder of, an ATO certificate to conduct the following courses of instruction, as provided in the training specifications and provided the applicant meets the requirements of this part and Part 2 of these regulations:

(1) ATC Initial Training course (ADC and APP);

(2) Aerodrome Control Rating Training course (ADC);

(3) Approach Control Procedural Rating Training course (APP);

(4) Approach Surveillance Rating Training course (APS);

(5) Area Control Procedural Rating Training course (ACP);

(6) Area Control Surveillance Rating Training course (ACS);

(7) Refresher Training Aerodromes Control course;

(8) Refresher Training Approach Control Procedural course;

(9) Refresher Training Approach Surveillance course;

(10) Refresher Training Area Control Procedural course;

(11) Refresher Training Area Control Surveillance course;

(12) Classroom Instructor Course for Air Traffic Controllers;

(13) On-The-Job Instructor Course for Air Traffic Controllers;

(14) Refresher Training Classroom Instructor Course for Air Traffic Controllers;

(15) Refresher Training On-The-Job Instructor Course for Air Traffic Controllers;

(16) Other courses, as the Authority may approve.

3.5.2.2 TRAINING COURSE APPROVAL – QUALIFICATION-BASED AND ALTERNATIVE MEANS OF COMPLIANCE

(a) An applicant for, or the holder of, an ATO certificate shall apply to the Authority for approval for each air traffic control training course to be offered or amended.

(1) The applicant or ATO shall submit two copies of each ATC training course or amendment to the Authority as part of the application.

(2) The applicant or ATO shall submit the application to the Authority at least 30 days before any training under the course is scheduled to begin.

(b) Except as provided in 3.5.2.3 of this part, each ATC training course for which approval is requested shall meet the minimum ATC training time requirements specified in Part 2 of these regulations for the licence, rating, or authorisation sought.

(c) Each training course for which approval is requested shall contain:

(1) A description of each room used for ATC training, including the room size and the maximum number of students that may be trained in the room at one time unless the course is provided via an internet-based training medium;

(2) A description of each type of audiovisual aid, projector, tape recorder, mockup, chart, aeronautical product, and other special training aid used for ATC training;

(3) A description of the minimum equipment to be used in each course;

(4) The minimum qualifications and ratings for each instructor assigned to ATC training, including initial and recurrent training; and

(5) A training syllabus that includes the following information:

(i) The prerequisites for enrolling in the course;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) The subjects and items to be covered and the level of proficiency required;

(iv) For each subject, the proportions of theory and other instruction to be given;

(v) A description of what the course is expected to accomplish with regard to student learning;

(vi) The expected accomplishments and the standards for each stage of training, including the required practical projects to be completed; and

(vii) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

3.5.2.3 TRAINING COURSE APPROVAL – ALTERNATIVE MEANS OF COMPLIANCE AND COMPETENCY-BASED TRAINING AND ASSESSMENT

(a) An ATO may request and receive initial approval for a period of not more than 24 calendar months for any ATC training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that:

(1) The ATO shows that the training will provide a level of competency at least equal to the minimum experience requirements for personnel not receiving such instruction; and

(2) The following conditions are met:

(i) The ATO holds an ATO certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(ii) In addition to the information required by paragraph 3.5.2.2(c) of this part, the training course specifies planned ATC training time requirements for the course;

(iii) The ATO shall not request that the ATC training course be approved for examining authority, nor may that ATO hold examining authority for that course; and

(iv) The knowledge test and/or skill test for the course shall be given by:

(A) An PEL officer or ANS inspector; or

(B) An examiner who is designated by CCAA.

(b) An ATO may request and receive final approval for any ATC training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that the following conditions are met:

(1) The ATO has held initial approval for that training course for at least 24 calendar months;

(2) The ATO has:

(i) Instructed at least 5 students in that training course within the preceding 24 calendar months and has recommended those students for an ATC license or rating; and

(ii) At least 80 per cent of those students passed the knowledge or skill test, as appropriate, on the first attempt, and that test was given by:

(A) A PEL officer or ANS inspector; or

(B) An examiner who is designated by CCAA;

(3) In addition to the information required by paragraph 3.5.2.2(c) of this part, the training course specifies planned theoretical knowledge and practical training time requirements for the course; and

(4) The ATO shall not request that the training course be approved for examining authority, nor may that ATO hold examining authority for that course.

3.5.3 PERSONNEL REQUIRED FOR AIR TRAFFIC CONTROL TRAINING

(a) An applicant for, or the holder of, an ATO certificate for instructing Air traffic control curricula shall have the following personnel:

(1) A Head of Training;

(2) A Chief Instructor, as applicable

(3) An adequate number of instructors relevant to the courses provided.

(b) Each instructor to be used for training shall have received the appropriate training and shall hold the appropriate licences and/or ratings as required by Part 2 of these regulations.

(c) The duties and qualifications of training and instruction personnel listed in paragraph 3.5.3(a) of this subsection are as follows:

(1) HEAD OF TRAINING. The Head of Training shall have overall responsibility for ensuring satisfactory integration of theoretical knowledge instruction and practical training and for supervising the progress of individual students. The Head of Training shall have extensive experience as Head of Training and shall possess a sound managerial capability.

(2) INSTRUCTORS.

(i) Each ATO shall provide the number of instructors holding appropriate qualifications, licences and ratings, issued under Part 2 of these regulations, that the Authority determines is necessary to provide adequate instruction and supervision of the students.

(ii) An ATO may provide specialised instructors who are not licensed, but who are approved in accordance with Part 2 of these regulations, to teach Air law, Air Traffic Control Equipment, General Knowledge, Human Performance, Meteorology, Navigation, Operation procedures, and similar subjects.

3.5.4 FACILITIES, EQUIPMENT, AND MATERIALS REQUIRED FOR MAINTENANCE TRAINING

(a) An applicant for, or the holder of, an ATO certificate shall have facilities, equipment, and materials, as determined by the Authority, appropriate for the maximum number of students expected to be taught at any time, as follows:

(1) An enclosed and adequate classroom;

(2) Appropriate simulator, office and rest accommodation;

(3) Adequate briefing rooms/cubicles of sufficient size and number;

(4) Suitable offices for the supervisory staff and room(s) to allow instructors to write reports on students, complete records, etc.;

(i) room (s) for Administration.

(ii) Toilet (s)

(iii) Secure storage facilities which can be combined with office accommodation.

(5) Availability of copying and printing facilities

(6) A library which must be provided containing all current training material appropriate to the scope and level of training undertaken.

(b) An ATO may not make a substantial change in facilities, equipment, or materials that have been approved for a particular training programme unless that change is approved by the Authority in advance.

3.5.4.1 SIMULATION TRAINING DEVICES

(a) An applicant for, or the holder of, an ATO certificate, approved to use STDs, shall show that each STD used for training and checking will be or is specifically qualified and approved by the Authority for:

(1) Each training programme or training course in which the STD is used.

(b) Each qualified and approved STD used by an ATO shall:

(1) Be maintained to ensure the reliability of the performances, functions, and all other characteristics that were required for its qualification;

(2) Be given a functional check each time before being used; and

(3) Have a discrepancy log in which the instructor or evaluator, at the end of each training session, enters each discrepancy.

3.5.5 ADDITIONAL SPECIFIC OPERATING RULES FOR AIR TRAFFIC CONTROL TRAINING

3.5.5.1 ATO TRAINING AND PROCEDURES MANUAL – ATC TRAINING

(a) Each applicant for, or holder of, an ATO certificate shall prepare and maintain an ATO Training and Procedures Manual containing information and instructions to enable ATC instructional personnel to perform their duties and to give guidance to students on how to comply with course requirements.

(b) Documentation of each proposed air traffic control training course curriculum, including syllabi, outlines, courseware, procedures, and documentation, shall be contained in the ATO Training and Procedures Manual.

(c) The ATO shall ensure that the ATC training curricula contained in the ATO Training and Procedures Manual are amended as necessary to keep the information contained therein up-to-date.

(d) Copies of all amendments to the air traffic control training curricula contained in the ATO Training and Procedures Manual shall be furnished promptly by the ATO to all persons or organisations to which the manual has been issued.

(e) Detailed requirements pertaining to the air traffic control training curricula that shall be contained in the ATO Training and Procedures Manual are prescribed in

3.5.5.2 RECORD KEEPING

(a) STUDENTS. An ATO that is approved to conduct air traffic control training shall maintain a record for each trainee that contains:

(1) The name of the trainee;

(2) A copy of the trainee's medical certificate, if any;

(3) The name of the course and the instruction credited;

(4) The trainee's prerequisite experience and course time completed;

(5) The trainee's performance on each lesson and the name of the instructor providing the instruction;

(6) The date and result of each end-of-course test and the name of the examiner conducting the test, if applicable;

(7) The number of hours of additional training accomplished after any unsatisfactory test; and

(8) A current progress chart or individual progress record for each student, showing the practical projects or laboratory work completed, or to be completed, in each subject.

(b) ATO PERSONNEL. An ATO that is approved to conduct air traffic control training shall maintain a record for each instructor approved to instruct a course approved in accordance with this subpart that indicates that the instructor has complied with all applicable instructor requirements of these regulations.

(c) RECORD RETENTION. An ATO shall keep all air traffic control training records for a minimum period of 5 years:

(1) For students, from the date after completion of air traffic control training, testing, or checking; and

(2) For ATO personnel, from the date of the last employment.

(d) The ATO shall make the air traffic control training records available to the Authority, upon request and within a reasonable time, and shall keep the records:

(1) For students, at the ATO where the ATC training, testing, or checking occurred; and

(2) For ATO personnel, at the ATO where the person is employed.

(e) The ATO shall provide to a trainee, upon request and within a reasonable time, a copy of his or her ATC training records.

3.5.5.3 GRADUATION CERTIFICATE

(a) An ATO shall issue a graduation certificate to each student who completes its approved course of training.

(b) The graduation certificate shall be issued to the student upon completion of the course of training and shall contain at least the following information:

(1) The name and certificate number of the ATO;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages; and

(6) A certification of the information contained on the graduation certificate by the Head of Training for that course of training.

3.5.5.4 INSPECTION OF AN ATO

(a) Each ATO shall allow the Authority to inspect the ATO facilities, equipment, materials, and records at any reasonable time and in any reasonable place to determine the ATO's compliance with these regulations and the ATO certificate and training specifications issued to the ATO.

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CURAÇAO CIVIL AVIATION REGULATIONS

Part 3 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 3.2.1.3 reflects a standard required by 3.2.1.3 of this part.

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PART 3 – IMPLEMENTING STANDARDS

IS 3.2.1.3 ATO CERTIFICATE

(a) The ATO certificate issued by the Authority will be as follows:

CURAÇAO

MINISTRY OF
TRAFFIC, TRANSPORT AND URBAN PLANNING
CURAÇAO CIVIL AVIATION AUTHORITY

Approved Training Organisation Certificate

Number: **[enter Certificate Number]**

This certificate is issued to:
[enter ATO NAME]

Whose principal business address is:
[enter ATO ADDRESS]

Upon finding that its organisation complies in all respects with the regulations of the Curaçao Civil Aviation Regulations Part 3 relating to the establishment of an Approved Training Organisation namely **[enter ATO NAME]** and is empowered to operate an Approved Training Organisation in accordance with the Training Specifications issued herewith and may conduct the Approved courses.

[enter ATO NAME] shall attain prior approval of the Curaçao Civil Aviation Authority upon starting new or amending current training modules.

This certificate is valid from **[enter issue DATE]** and shall continue in effect until ***(enter date 12 months after first issue, 24 months after second and further issues)***, unless surrendered, suspended or revoked.

On behalf of the Minister of Traffic,
Transport & Urban Planning,

[enter NAME CCAA DG],
Director General of the
Curaçao Civil Aviation Authority

Date of issue:

This certificate is non-transferable

IS 3.2.1.17 QUALITY SYSTEM AND QUALITY ASSURANCE PROGRAMME

(a) In order to show compliance with 3.2.1.17 of this part, an ATO shall establish its quality system and quality assurance programme in accordance with the instruction and information contained in the following paragraphs.

1.0 Quality Policy and Strategy

1.1 The ATO shall describe how it performs the organisation and management of its training operations in order to ensure it operates in conformity with the ATO Procedures Manual and as approved by the Authority. A formal, written quality policy statement shall be prepared that establishes a commitment by the accountable manager of the ATO to achieving and maintaining the highest possible standards in quality. The quality policy shall reflect the achievement of continued compliance with all applicable [STATE] regulations and any additional standards specified by the ATO.

1.2 The accountable manager of the training organisation shall have the overall responsibility for the standard of quality, including the frequency, format, and structure of the internal management review and analysis activities, and may delegate to a quality manager the responsibility for the tasks defined under paragraph 2 of this IS. Depending on the size and scope of the ATO and the requirements of the Authority, the accountable manager and quality manager may interact in different ways, as illustrated in the organisational charts in ICAO Doc 9841, *Manual on the Approval of Training Organizations,* Appendix C.

2.0 Quality Manager

2.1 The primary role of the quality manager is to verify, by monitoring activities in the field of training, that the standards as established by the ATO and any additional requirements of the Authority are being carried out properly.

2.2 The quality manager shall be responsible for ensuring that the quality system is properly documented, implemented, maintained, and continuously reviewed and improved.

2.3 The quality manager shall:

(a) Report directly to the Director of Training (see Note); and

(b) Have unencumbered access to all parts of the ATO.

Note: When the Director of Training is not the accountable manager, reporting mechanisms shall be instituted to ensure that the accountable manager is aware of all issues impacting the quality of the training services being provided by the affected ATO (see ICAO Doc 9841, Manual on the Approval of Training Organizations, *Appendix C, Figure C-2).*

2.4 The quality manager shall be responsible for ensuring that personnel training related to the quality system is conducted.

3.0 Quality Assurance

3.1 The term "quality assurance" is frequently misunderstood to mean the testing and checking of products and services. ATOs that do only checking and testing activities are merely applying quality control measures, which are designed to catch product and service defects but not necessarily prevent them. For example, an ATO that administers exams at the end of the training syllabus, only to discover that a large proportion of the students failed to meet the required standard, has only identified a deficiency in expected results. The implication may be that there is a problem with the training programme, or the instructor, or even the student selection criteria. In this instance, the ATO has no idea what the real problem is or what to do about it. Quality control by itself provides limited value without the suite of complementary activities that comprise quality assurance.

3.2 Quality assurance, on the other hand, attempts to improve and stabilise the training process and to identify and avoid, or at least minimise, issues that lead to problems in the first place. It continuously verifies that standards are adhered to throughout the training process by introducing various checkpoints and controls. It further introduces a system of audits to ensure that documented policies, processes, and procedures are consistently followed. It is the "assurance" part of quality management.

3.3 A quality assurance plan for an ATO shall encompass well-designed and documented policies, processes, and procedures for at least the following activities:

(a) Monitoring training services and process controls;

(b) Monitoring assessment and testing methods;

(c) Monitoring personnel qualifications and training;

(d) Monitoring training devices and equipment qualification, calibration, and functionality, as applicable;

(e) Conducting internal and external audits;

(f) Developing, implementing, and monitoring corrective and preventive actions and associated reporting systems; and

(g) Utilising appropriate statistical analysis to identify and respond appropriately to trends.

3.4 An effective quality assurance plan will aid significantly in the ATO's compliance with requirements, its conformity with the standards, and the adequacy of its training activities. Taking the ATO's performance to a higher level requires a structure that ensures that the combined quality assurance effort of the employees reaches its full potential.

Note: ICAO Annex 1 requires ATOs only to establish and implement quality assurance policies, processes, and procedures acceptable to the Authority granting the approval, which ensures that training and instructional practices comply with all relevant requirements.

3.5 Quality assurance plans by themselves are subject to breakdowns in human performance and therefore require robust organisational structures that underpin the quality assurance efforts of individuals. It is for this reason that ATOs and States shall embrace the quality system governance model described in this IS.

4.0 Quality System for the ATO

4.1 A quality system is the aggregate of all the ATO's activities, plans, policies, processes, procedures, resources, incentives, and infrastructure working in unison towards a total quality management approach. It requires an organisational construct, complete with policies, processes, procedures, and resources, that underpins a commitment to achieving excellence in product and service delivery through the implementation of best practices in quality management.

4.2 An ATO that supports its quality assurance plan with a well-designed, -implemented, and -maintained quality system structure shall be able to easily and repeatedly achieve results that exceed both the requirements of the applicable national regulations and the expectations of the ATO's clients.

4.3 The basic attributes of an effective quality system shall include, but are not necessarily limited to:

(a) A managerial structure that facilitates and encourages clear and unencumbered access to the decision makers;

(b) An overarching company commitment to achieving excellence in training service delivery rather than to meeting minimum requirements;

(c) Quality policies, processes, and procedures that are well-designed, consistently applied, and subject to formalised review and refinement processes;

(d) An employee training plan that instils and promotes best practices in quality management efforts;

(e) An organisational risk profile and corresponding risk management plan, which together provide a comprehensive list of hazards that are tied to the ATO's activities and establish mitigating measures to effectively manage those risks that threaten the achievement of desired standards of performance; and

(f) A strategic review of policies and procedures that measures the organisation's current assumptions, objectives, and plans by applying a relevance test matched to evolving trends in the industry or changes occurring within the ATO.

5.0 Organisational Risk Profile

5.1 An organisational risk profile is an inventory of identified hazards and threats that present risks that are likely to prevent conformity with the required standards of performance. This "threat to quality" list is normally derived by first establishing a directory of those activities that routinely take place in order to deliver and administer a training programme. Once complete, the activity directory is then expanded to identify the hazards and threats associated with each individual activity. Some examples of routine activities that shall be examined during this process are:

(a) Selection and training of personnel;

(b) Training programme development, validation, and review;

(c) Development and maintenance of training courseware;

(d) Administrative personnel duties in support of the training programme, the instructors and evaluators, and the students;

(e) Delivery of training;

(f) Record keeping;

(g) Assessment and examination processes; and

(h) Client and Authority feedback.

5.2 The risks identified through this exercise shall not be limited to just those that currently exist but shall also include those potential risks that may arise from a change to existing circumstances or conditions.

6.0 Risk Management Plan

6.1 A risk management plan is designed to mitigate the identified risks, real or potential, that were derived from the organisational risk profile exercise. The plan's objective is not to eliminate risk so much as it is to effectively manage risk by putting in place risk-controlling measures.

6.2 A well-developed and -implemented risk management plan will substantially aid in accurately scoping out the depth and frequency of planned quality-assurance-related activities.

6.3 The plan shall be subject to the management review process outlined in paragraph 4.3(f) of this IS.

6.4 The current risk management plan shall be readily accessible to all employees so that it can be accurately followed and open to comment for improvement.

7.0 Coherence Matrix

7.1 A coherence matrix, sometimes known as a correspondence matrix, is a very powerful addition to the ATO's compliance efforts. It is a detailed, tabulated document that lists all the applicable regulatory requirements imposed on the ATO. Beside each listed provision there shall be at least two descriptive elements that identify:

(a) The existing process(es) that is (are) designed to ensure continuous compliance with that specific regulation or standard; and

(b) The individual managerial position responsible for the effective implementation of each process.

7.2 The coherence matrix shall indicate the next intended and most recently completed audits designed to validate the functionality of each of the identified processes. Any recent audit findings shall be listed in the matrix or referred to as being documented in a separate register of findings.

7.3 The coherence matrix is developed and managed by the quality manager and is subject to the management review process.

7.4 The current coherence matrix shall be readily accessible to all employees so it can be accurately followed and open to comment for improvement.

8.0 Corrective and Preventive Action Reports

8.1 Quality assurance plans shall include a well-structured reporting system to ensure that suggestions by ATO personnel for both corrective and preventive actions are recorded and promptly addressed. Paragraph 3.3(f) of this IS identifies this as a necessary component of quality assurance.

8.2 After an analysis of the reports submitted, the reporting system shall specify who is required to rectify a discrepancy and/or nonconformity in each particular case and the procedure to be followed if corrective action is not completed within an appropriate timescale. Just as important, the reporting system shall identify who is required to investigate and act upon any report identifying measures that may prevent a nonconformity from occurring.

8.3 Corrective and preventive action reports shall be able to be submitted anonymously, if individuals so choose, to maximise the opportunity for open and effective reporting.

8.4 Since corrective and preventive action reports, in this instance, represent suggestions for improvement in conformity levels and deal with quality issues, this reporting system and its processes shall be managed by the quality manager.

9.0 Quality-Related Documentation

9.1 Relevant documentation includes part(s) of the ATO Procedures Manual that may be included in a separate Quality Manual.

9.2 In addition, the relevant documentation shall include the following:

(a) Description of the ATO;

(b) Quality policy and strategy;

(c) Glossary;

(d) Organisational risk profile;

(e) Risk management plan;

(f) Coherence matrix;

(g) Corrective and preventive action procedures and reporting system;

(h) Specified training standards;

(i) Assignment of duties and responsibilities related to quality assurance and the quality system; and

(j) Training procedures related to the quality system to ensure regulatory compliance.

10.0 Quality Assurance Programme

10.1 The quality assurance programme shall include all planned and systematic actions necessary to provide confidence that every training activity is conducted in accordance with all applicable requirements, standards, and procedures.

10.2 The quality assurance programme documentation shall reflect:

(a) The schedule of the monitoring process;

(b) Audit procedures;

(c) Reporting procedures;

(d) Follow-up and corrective action procedures;

(e) The record keeping system; and

(f) Document control.

11.0 Quality Inspection

11.1 The primary purpose of a quality inspection is to review a document or observe a particular event, action, etc., in order to verify whether established training procedures and requirements are followed during the conduct of the inspection and whether the required standard is achieved.

11.2 Examples of typical subject areas for quality inspections are:

(a) Actual training sessions;

(b) Maintenance, if applicable;

(c) Technical standards; and

(d) Training standards.

12.0 Quality Audits

12.1 An audit is a systematic and independent comparison between the way in which training is being conducted and the way in which it should be conducted according to the published training procedures.

12.2 Audits shall include at least the following quality procedures and processes:

(a) A description of the scope of the audit, which shall be explained to the personnel to be audited;

(b) Planning and preparation;

(c) The gathering and recording of evidence; and

(d) Analysis of the evidence.

12.3 The various techniques that make up an effective audit are:

(a) A review of published documents;

(b) Interviews or discussions with personnel;

(c) The examination of an adequate sample of records;

(d) The witnessing of the activities that make up the training; and

(e) The preservation of documents and the recording of observations.

13.0 Auditors

13.1 The ATO shall decide, depending on the complexity of the organisation and the training being conducted, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team shall have relevant training and/or operational experience.

13.2 The responsibilities of the auditors shall be clearly defined in the relevant documentation.

14.0 Auditor's Independence

14.1 Auditors shall not have any day-to-day involvement in the area of the operation or maintenance activity that is to be audited.

14.2 An ATO may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities through the use of part-time auditors. An ATO whose structure and size does not justify the establishment of full-time auditors may undertake the audit function using part-time personnel from within its own organisation or from an external source under the terms of an agreement acceptable to the Authority.

14.3 In all cases, the ATO shall develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist has some familiarity with the type of activity conducted by the ATO.

14.4 The quality assurance audit programme of the ATO shall identify the persons within the organisation who have the experience, responsibility, and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record concerns or findings and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific and reasonable timescales; and

(e) Report directly to the quality manager.

15.0 Audit Scheduling

15.1 A quality assurance audit programme shall include a defined audit schedule and a periodic review cycle. The schedule shall be flexible and shall allow unscheduled audits when negative trends are identified. The quality manager shall schedule follow-up audits when necessary to verify that a corrective action resulting from a finding was carried out and that it is effective.

15.2 An ATO shall establish a schedule of audits to be completed during a specific calendar period. This schedule shall be influenced by the organisational risk profile and shall be reflected in both the risk management plan and the coherence matrix documents. At a minimum, all aspects of the training shall be reviewed within a period of 12 months in accordance with the audit programme.

15.3 When an ATO defines the audit schedule, it shall take into account significant changes to management, the organisation, training, or technologies, as well as changes to standards and requirements.

16.0 Monitoring and Corrective Action

16.1 The aim of monitoring within the quality system is primarily to investigate and judge its effectiveness and thereby ensure that defined policy and training standards are continuously complied with. Monitoring and corrective action functions fall under the responsibilities of the quality manager. Monitoring activity is based upon:

(a) Quality inspections;

(b) Quality audits; and

(c) Corrective and preventive action reports and subsequent follow-up.

16.2 Any nonconformity identified as a result of monitoring shall be communicated by the quality manager to the manager responsible for taking corrective action or, if appropriate, to the Director of Training or, when circumstances warrant, to the accountable manager. Such nonconformity shall be recorded for the purpose of further investigation in order to determine the cause and enable the recommendation of an appropriate corrective action.

16.3 The quality assurance audit programme shall include procedures to ensure that corrective and preventive actions are developed in response to findings. Personnel implementing these procedures shall monitor such actions to ensure that they have been completed and to verify their effectiveness. Organisational responsibility and accountability for the implementation of a corrective action resides with the department in which the finding was identified. The accountable manager will have the ultimate responsibility for ensuring, through the quality manager, that the corrective action has reestablished conformity with the standard required by the ATO and any additional requirements established by the Authority or the ATO.

16.4 As part of its quality system, the ATO shall identify internal and external customers and shall monitor customer satisfaction by measurement and analysis of feedback.

17.0 Continuous Improvement Process

17.1 The quality manager shall be responsible for the review and continuous improvement of the established quality system's policies, processes, and procedures. The following tools, on which the quality manager shall rely, are essential to the ongoing continuous improvement process:

(a) Organisational risk profile;

(b) Risk management plan;

(c) Coherence matrix;

(d) Corrective and preventive action reports; and

(e) Inspection and audit reports.

17.2 These tools and processes are interrelated and help define the continuous improvement efforts of the organisation. For example, any corrective or preventive action report may identify a deficiency or an opportunity for improvement. As outlined in paragraph 16.2 of this IS, the quality manager shall ensure the identified issue is addressed and effectively implemented. The same shall be true if the discovery of an issue was identified during an inspection or audit.

17.3 The effective implementation of change and the subsequent validation that the change did indeed result in the desired outcome are critical to the continuous improvement process. Simply introducing a well-meaning suggestion for improvement into the organisation without carefully managing that change may have undesirable consequences. It is therefore incumbent upon the quality manager to responsibly introduce, monitor, and validate improvement efforts.

17.4 A simplistic but effective process to use in managing continuous improvement is known as the PDCA approach. Figure 1 depicts this continuous improvement process cycle:

Figure 1. PDCA Approach



(a) **Plan.** Map out the implementation of the recommended change, identifying at least:

(1) The people who will be affected by the change;

(2) The required quality control measures necessary to mitigate risk; and

(3) The desired outcome and its intended consequences.

(b) **Do.** Execute the implementation plan once all affected groups have accepted the proposal and understand their role in ensuring its success.

(c) **Check.** Apply sufficient quality control "stage" checks throughout the implementation phase to ensure any unintended deviations in the execution are identified and addressed without delay; and

(d) **Act.** Analyse the results and take appropriate action as necessary.

18.0 Management Review and Analysis

18.1 Management shall accomplish a comprehensive, systematic, and documented review and analysis of the quality system, training policies, and procedures and shall consider:

(a) The results of quality inspections, audits, and any other indicators;

(b) The overall effectiveness of the management organisation in achieving stated objectives; and

(c) The correction of trends and, where applicable, the prevention of future nonconformities.

18.2 Conclusions and recommendations made as a result of the review and analysis shall be submitted, in writing, to the responsible manager for action. The responsible manager shall be a person who has the authority to resolve relevant issues and take action. The Director of Training shall decide upon the frequency, format, and structure of meetings for internal review and analysis, in coordination with the accountable manager, if different, as the accountable manager has the overall responsibility for the quality system, including the frequency, format, and structure of the internal management review and analysis activities.

19.0 Recording

19.1 Accurate, complete, and readily accessible records documenting the result of the quality assurance audit programme shall be maintained by the ATO. Records are essential data to enable an ATO to analyse and determine the root causes of nonconformity so that areas of non-compliance can be identified and subsequently addressed.

19.2 Records shall be retained at least for the period mandated by national requirements. In the absence of such requirements, a period of 3 years is recommended. The relevant records include:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Responses to findings;

(d) Corrective and preventive action reports;

(e) Follow-up and closure reports; and

(f) Management review and analysis reports.

20.0 Quality Assurance Responsibility for Satellite ATOs

20.1 An ATO may decide to subcontract certain activities to external organisations subject to the approval of the Authority.

20.2 The ultimate responsibility for the training provided by the satellite ATO always remains with the ATO. A written agreement shall exist between the ATO and the satellite ATO clearly defining the training services to be provided and the level of quality to be assured. The satellite ATO's activities relevant to the agreement shall be included in the ATO's quality assurance audit programme.

20.3 The ATO shall ensure that the satellite ATO has the necessary authorisation/approval when required and that it commands the resources and competence to undertake the task.

21.0 Quality Assurance Training

21.1 Appropriate and thorough training is essential to optimise quality in every organisation. In order to achieve the appropriate outcomes of such training, the ATO shall ensure that all personnel understand the objectives as laid out in the Quality Manual to a level relevant to their duties, including:

(a) The concept of quality assurance and associated systems;

(b) Quality management;

(c) The Quality Manual;

(d) Inspections and audit techniques; and

(e) Reporting and recording.

21.2 Time and resources shall be allocated to provide appropriate levels of quality assurance training to every employee.

21.3 Quality assurance courses are available from the various national or international standards institutions, and an ATO may consider whether to offer such courses to those likely to be involved in the management or supervision of quality assurance processes. ATOs with sufficient appropriately qualified personnel may consider the possibility of providing in-house training.

IS 3.3.3 PERSONNEL REQUIRED FOR FLIGHT CREW TRAINING

(a) The Director of Training shall have overall responsibility for ensuring satisfactory integration of flight crew training, flight simulation training, and theoretical knowledge instruction and for supervising the progress of individual students. The Director of Training shall have extensive experience in training as an FI for pilot licences and shall possess a sound managerial capability.

(b) The CFI shall be responsible for the supervision of FIs, synthetic FIs, and RPAS instructors and for the standardisation of all flight instruction and synthetic flight instruction. The CFI shall:

(1) Hold the highest pilot licence related to the flight crew training courses conducted;

(2) Hold the rating(s) related to the flight crew training courses conducted;

(3) Hold an FI rating for at least one of the types of aircraft or RPAS used in the course;

(4) Have completed 1 000 hours of PIC flight time, of which a minimum of 500 hours shall be on flight crew instructional duties related to the flight crew courses conducted, of which 200 hours may be instrument ground time; and

(5) For RPAS, have completed the number of hours specified by the Authority for PIC flight time, of which a specified number of hours shall be on flight crew instructional duties related to the flight crew course conducted, of which a specified number of hours may be instrument ground time, as applicable.

(c) An FI shall hold:

(1) A pilot licence and rating(s), in accordance with Part 2 of these regulations, related to the flight crew training and RPAS courses that the instructor is approved to conduct; and

(2) An instructor rating or authorisation, in accordance with Part 2 of these regulations, relevant to the part of the course being conducted (e.g., FI, flight IR instructor, instructor for additional class or type rating(s), instructor for flight simulation training, instructor for RPAS), as appropriate.

(d) An instructor for flight simulation training or RPAS shall hold the authorisation, in accordance with Part 2 of these regulations, related to the training courses that the instructor is appointed to conduct.

(e) An instructor for FE licence and rating training shall hold:

(1) The licence and rating(s), in accordance with Part 2 of these regulations, related to the FE licence and/or rating training courses that the instructor is appointed to conduct; and

(2) An IR, in accordance with Part 2 of these regulations, relevant to the part of the course being conducted.

(f) The CGI shall:

(1) Be responsible for the supervision of all GIs and for the standardisation of all theoretical knowledge instruction; and

(2) Have a practical background in aviation and the appropriate GI licence, in accordance with Part 2 of these regulations.

(g) A GI shall be responsible for conducting ground training in subject areas required for a licence or rating. A GI may either have a licence or be approved by the Authority in accordance with Part 2 of these regulations, depending upon the subject matter to be taught.

(h) A GI who is approved by the Authority but is not licensed, and who teaches knowledge subjects for licences and ratings, shall have appropriate experience in aviation and shall, before appointment, provide proof of competency by giving a lecture based on material developed by that GI for the subjects to be taught.

IS 3.3.5.1 ATO PROCEDURES MANUAL – FLIGHT CREW TRAINING

(a) An ATO conducting flight crew training shall include the following in its ATO Procedures Manual or a separate training and procedures manual:

1.0 General

1.1 Preamble relating to the use and applicability of the manual.

1.2 Table of contents.

1.3 Amendment, revision, and distribution of the manual:

(a) Procedures for amendment;

(b) Record of amendments page;

(c) Distribution list; and

(d) List of effective pages.

1.4 Glossary of definitions and significant terms, including a list of abbreviations.

1.5 Description of the structure and layout of the manual, including:

(a) The various parts and sections, as well as their contents and use; and

(b) The numbering system for headings and paragraphs.

1.6 Description of the scope of training authorised under the ATO's training specifications.

1.7 A chart of the ATO's management organisation and the names of the post holders.

1.8 Qualifications, responsibilities, and succession of command of management and key operational personnel including:

(a) Accountable manager;

(b) Director of Training;

(c) Instructional services manager;

(d) Quality manager;

(e) Director of Maintenance, if applicable;

(f) Safety manager, if applicable;

(g) Instructors; and

(h) Examiners, evaluators, and auditors.

1.9 Policies dealing with the:

(a) ATO's objectives, including ethics and values;

(b) Selection of ATO personnel and the maintenance of their qualifications;

(c) Training programme design and development, including the need for programme validation and review, as well as the outsourcing of training programme development to third-party providers;

(d) Evaluation, selection, and maintenance of training material and devices;

(e) Maintenance of the training facilities and equipment;

(f) Development and maintenance of a quality system governance model; and

(g) Development and maintenance of a culture focused on safety in the workplace, including, when applicable, implementing an SMS governance model.

1.10 Description of the facilities and equipment available, including:

(a) General use facilities, including offices, stores and archives, and library or reference areas;

(b) The number and size of classrooms, including installed equipment; and

(c) The type and number of training devices, including their location if other than at the main training site.

2.0 Personnel Training

2.1 Identification of persons or positions responsible for the maintenance of performance standards and for ensuring the competency of personnel.

2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel, as required by 3.2.1.14 of this part.

2.3 Details of the initial and recurrent training programmes for all personnel, as required by 3.2.1.14 of this part.

2.4 Procedures for proficiency checks and upgrade training.

3.0 Client Training Programmes

Client training programmes cover each individual training programme conducted by the ATO for its customers. The training programmes consist of a training plan, a practical training syllabus, and a theoretical knowledge syllabus, if applicable, as described in paragraphs 3.1, 3.2, and 3.3 of this IS.

3.1 Training plan.

(a) The aim of the course in the form of a statement specifying what the student is expected to be able to do as a result of the training; the level of performance; and the training constraints to be observed.

(b) Pre-entry requirements, including:

(1) Minimum age;

(2) Education or qualification requirements;

(3) Medical requirements; and

(4) Linguistic requirements.

(c) Credits for previous knowledge, experience, or other qualifications, proof of which may be obtained from the Authority before the training commences.

(d) Training curricula, including:

(1) Theoretical training (knowledge);

(2) Practical training (skills);

(3) Training in the domain of human factors (attitudes);

Note: Guidance material to design training programmes on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(4) Assessment and examinations; and

(5) Monitoring of the training process, including the assessment and examination activities.

(e) Training policies in terms of:

(1) Restrictions regarding the duration of training periods for students and instructors; and

(2) If applicable, minimum rest periods.

(f) Policy for the conduct of student evaluation, including:

(1) Procedures for authorisation for tests;

(2) Procedures for remediation training before retest and for rewriting knowledge tests;

(3) Test reports and records;

(4) Procedures for skill progress checks and skill tests;

(5) Procedures for knowledge progress tests and knowledge tests, including procedures for knowledge test preparation, types of questions and assessments, and standards required for a pass; and

(6) Procedures for question analysis and review and for issuing replacement exams (applicable to knowledge tests).

(g) Policy regarding training effectiveness, including:

(1) Liaison procedures between training departments;

(2) Requirements for reporting and documentation;

(3) Internal feedback system for detecting training deficiencies;

(4) Interim performance or competency standards at various stages of training to ensure standardisation;

(5) Individual student responsibilities;

(6) Procedures for correcting unsatisfactory progress;

(7) Procedures for changing instructors;

(8) Maximum number of instructor changes per student; and

(9) Procedures for suspending a student from training.

3.2 Syllabi for non-competency-based training programmes.

(a) Practical training syllabus, including:

(1) A statement of how the course will be divided into phases, indicating how the phases will be arranged to ensure completion in the most suitable learning sequence and that exercises are repeated at the proper frequency;

(2) The syllabus hours for each phase and for groups of lessons within each phase and when progress tests are to be conducted;

(3) A statement of the standard of proficiency required before progressing from one phase of training to the next, including minimum experience requirements and satisfactory exercise completion before undertaking the next phase;

(4) Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications;

(5) Instruction for the conduct and documentation of all progress checks; and

(6) Instruction, where applicable, given to all examining personnel regarding the conduct of examinations and tests.

(b) Theoretical knowledge syllabus.

The syllabus for theoretical knowledge instruction shall be structured generally as outlined in paragraph 3.2(a) of this IS but with a training specification and objective for each subject.

3.3 Syllabus for competency-based training programmes.

(a) Training programmes focused on achieving desired standards of performance for specific jobs or tasks shall be competency based.

(b) Competency-based training programmes are based upon a job and task analysis to define the knowledge, skills, and attitudes required to perform a job or a task. Such programmes use an integrated approach in which the training of the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the underlying knowledge, skills, and attitudes related to the task in a more effective way.

(c) As a result, the syllabus is structured as a single document that is subdivided into modules containing a training objective and the same information outlined in paragraph 3.2(a) of this IS, but it is applied to both the theoretical knowledge and practical training delivered by the module.

4.0 Tests and Checks Conducted by the ATO for the Issuance of a Licence or Rating

When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with the ATO Procedures Manual, the manual shall include:

4.1 The name(s) of the personnel with testing authority and the scope of the authority;

4.2 The role and duties of the authorised personnel;

4.3 If the ATO has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and

4.4 The applicable requirements established by the Authority, such as:

(a) The procedures to be followed in the conduct of checks and tests; and

(b) The methods for completion and retention of testing records, as required by the Authority.

5.0 Records

Policy and procedures regarding:

5.1 Attendance records;

5.2 Student training records;

5.3 Personnel training and qualification records;

5.4 Persons responsible for checking records and student personal logs;

5.5 The nature and frequency of record checks;

5.6 Standardisation of record entries;

5.7 Personal log entries; and

5.8 Security of records and documents.

6.0 Safety Management System (if applicable)

The requirement to adopt SMS practices is intended to be restricted to only those training entities whose activities directly impact the safe operation of aircraft. Should that requirement apply to the ATO, the ATO Procedures Manual, as stated in paragraph 1.9 of this IS, shall address the ATO's SMS with reference to a separate manual or shall include the SMS practices within the ATO Procedures Manual.

7.0 Quality Assurance

Provide a brief description of the quality assurance practices, as required by IS 3.2.1.17, by reference to a separate Quality Manual, or include the quality assurance practices within the ATO Procedures Manual (refer to paragraph 9.0 of IS 3.2.1.17).

8.0 Appendices (as required)

8.1 Sample progress test forms;

8.2 Sample logs, test reports, and records; and

8.3 A copy of the ATO's approval document.

9.0 Flight Crew Training – General

9.1 Qualifications, responsibilities, and succession of command of management and key operational personnel, in addition to those listed in paragraph 1.8 of this IS, including the:

(a) CFI; and

(b) CGI.

9.2 Policies and procedures, in addition to those listed in paragraph 1.9 of this IS, dealing with:

(a) Approval of flights;

(b) Responsibilities of the PIC;

(c) Flight planning procedures – general;

(d) Carriage of passengers;

(e) Operational control system;

(f) Reporting of safety hazards, incidents, and accidents;

(g) Duty periods and flight time limitations for flight crew members and students; and

(h) Minimum rest periods for flight crew members and students.

9.3 Description of the facilities and equipment available, in addition to those listed in paragraph 1.10 of this IS, including:

(a) FSTDs, aircraft training, and RPAS training;

(b) Maintenance facilities and ramp parking areas for training aircraft and RPAS training;

(c) Computer-based classroom(s); and

(d) Dispatch control and briefing areas.

10.0 Aircraft Operating Information

10.1 Certification and operating limitations.

10.2 Aircraft handling, including:

(a) Performance limitations;

(b) Use of checklists;

(c) Standard operating procedures; and

(d) Aircraft maintenance procedures.

10.3 Instructions for aircraft loading and securing of load.

10.4 Fuelling procedures.

10.5 Emergency procedures.

11.0 Routes

11.1 Performance criteria (e.g., take-off, en route, landing).

11.2 Flight planning procedures, including:

(a) Fuel and oil requirements;

(b) Minimum safe altitudes;

(c) Planning for contingencies (e.g., emergency or diversion scenarios); and

(d) Navigation equipment.

11.3 Weather minima for all instructional training flights during day, night, visual flight rules, and IFR operations.

11.4 Weather minima for all student training flights at various stages of training.

11.5 Training routes and practice areas.

12.0 Flight Training Plan

12.1 Training curricula, in addition to curricula listed in paragraph 3.1(d) of this IS, including, as applicable:

(a) Flight crew curriculum (single engine);

(b) Flight crew curriculum (multi-engine);

(c) Theoretical knowledge curriculum;

(d) Flight simulation training curriculum; and

(e) Flight crew curriculum (RPAS).

12.2 The general arrangements of daily and weekly programmes for flight crew training, ground training, flight simulation training, and RPAS training.

12.3 Training policies, in addition to paragraph 3.1(e) of this IS, in terms of:

(a) Weather constraints;

(b) Maximum student training times for flight, theoretical knowledge, and flight simulation training, per day/week/month;

(c) Restrictions with respect to training periods for students;

(d) Duration of training flights at various stages;

(e)	Maximum individual student flight hours in any day or night period;
(f)	Maximum number of individual student training flights in any day or night period; and
(g)	Minimum rest periods between training periods.

IS 3.4.5.1 ATO PROCEDURES MANUAL – MAINTENANCE TRAINING

(a) An ATO conducting maintenance training shall include the following in its ATO Procedures Manual:

1.0	**General**	
1.1	Preamble relating to the use and applicability of the manual.	
1.2	Table of contents.	
1.3	Amendment, revision, and distribution of the manual:	
	(a)	Procedures for amendment;
	(b)	Record of amendments page;
	(c)	Distribution list; and
	(d)	List of effective pages.
1.4	Glossary of definitions and significant terms, including a list of abbreviations.	
1.5	Description of the structure and layout of the manual, including:	
	(a)	The various parts and sections, as well as their contents and use; and
	(b)	The numbering system for headings and paragraphs.
1.6	Description of the scope of training authorised under the ATO's training specifications.	
1.7	A chart of the ATO's management organisation and the names of the post holders.	
1.8	Qualifications, responsibilities, and succession of command of management and key operational personnel, including the:	
	(a)	Accountable manager;
	(b)	Director of Training;
	(c)	Instructional services manager;
	(d)	Quality manager;
	(e)	Director of Maintenance, if applicable;
	(f)	Safety manager, if applicable;
	(g)	Instructors; and
	(h)	Examiners, evaluators, and auditors.
1.9	Policies dealing with the:	
	(a)	ATO's objectives, including ethics and values;
	(b)	Selection of ATO personnel and the maintenance of their qualifications;
	(c)	Training programme design and development, including the need for programme validation and review, as well as the outsourcing of training programme development to third-party providers;
	(d)	Evaluation, selection, and maintenance of training material and devices;
	(e)	Maintenance of the training facilities and equipment;
	(f)	Development and maintenance of a quality system governance model; and

(g) Development and maintenance of a culture focused on safety in the workplace, including, when applicable, implementing an SMS governance model.

1.10 Description of the facilities and equipment available, including:

(a) General use facilities, including offices, stores and archives, and library or reference areas;

(b) The number and size of classrooms, including installed equipment; and

(c) The type and number of training devices, including their location if other than at the main training site.

2.0 Personnel Training

2.1 Identification of persons or positions responsible for the maintenance of performance standards and for ensuring the competency of personnel.

2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel as required by 3.2.1.14 of this part.

2.3 Details of the initial and recurrent training programmes for all personnel as required by 3.2.1.14 of this part.

2.4 Procedures for proficiency checks and upgrade training.

3.0 Client Training Programmes

3.1 Client training programmes cover each individual training programme conducted by the ATO for its customers. The training programmes consist of a training plan, a practical training syllabus, and a theoretical knowledge syllabus, if applicable, as described in paragraphs 3.2, 3.3, and 3.4 of this IS.

3.2 Training plan.

(a) The aim of the course in the form of a statement specifying what the student is expected to be able to do as a result of the training, the level of performance, and the training constraints to be observed.

(b) Pre-entry requirements, including:

(1) Minimum age;

(2) Education or qualification requirements;

(3) Medical requirements; and

(4) Linguistic requirements.

(c) Credits for previous knowledge, experience, or other qualifications, proof of which shall be obtained from the Authority before the training commences.

(d) Training curricula, including:

(1) Theoretical training (knowledge);

(2) Practical training (skills);

(3) Training in the domain of human factors (attitudes);

Note: Guidance material to design training programmes on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(4) Assessment and examinations; and

(5) Monitoring of the training process, including the assessment and examination activities.

(e) Training policies in terms of:

(1) Restrictions regarding the duration of training periods for students and instructors; and

(2) If applicable, minimum rest periods.

(f) Policy for the conduct of student evaluation, including:

(1) Procedures for authorisation for tests;

(2) Procedures for remediation training before retest and for rewriting knowledge tests;

(3) Test reports and records;

(4) Procedures for skill progress checks and skill tests;

(5) Procedures for knowledge progress tests and knowledge tests, including procedures for knowledge test preparation, types of questions and assessments, and standards required for a pass; and

(6) Procedures for question analysis and review and for issuing replacement exams (applicable to knowledge tests).

(g) Policy regarding training effectiveness, including:

(1) Liaison procedures between training departments;

(2) Requirements for reporting and documentation;

(3) Internal feedback system for detecting training deficiencies;

(4) Interim performance or competency standards at various stages of training to ensure standardisation;

(5) Individual student responsibilities;

(6) Procedures for correcting unsatisfactory progress;

(7) Procedures for changing instructors;

(8) Maximum number of instructor changes per student; and

(9) Procedures for suspending a student from training.

3.3 Syllabi for non-competency-based training programmes.

(a) Practical training syllabus.

(1) A statement of how the course will be divided into phases, indicating how the phases will be arranged to ensure completion in the most suitable learning sequence and that exercises are repeated at the proper frequency.

(2) The syllabus hours for each phase and for groups of lessons within each phase and when progress tests are to be conducted.

(3) A statement of the standard of proficiency required before progressing from one phase of training to the next, including minimum experience requirements and satisfactory exercise completion before undertaking the next phase.

(4) Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications.

(5) Instruction for the conduct and documentation of all progress checks.

(6) Instruction, where applicable, given to all examining personnel regarding the conduct of examinations and tests.

(b) Theoretical knowledge syllabus.

(1) The syllabus for theoretical knowledge instruction shall be structured generally as outlined in paragraph 3.3 of this IS but with a training specification and objective for each subject.

3.4 Syllabus for competency-based training programmes.

(a) Training programmes focused on achieving desired standards of performance for specific jobs or tasks shall be competency based.

(b) Competency-based training programmes are based upon a job and task analysis to define the knowledge, skills, and attitudes required to perform a job or a task. Such programmes use an integrated approach in which the training of the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the underlying knowledge, skills, and attitudes related to the task in a more effective way.

(c) As a result, the syllabus is structured as a single document that is subdivided into modules containing a training objective and the same information outlined in paragraph 3.2 of this IS, but it is applied to both the theoretical knowledge and practical training delivered by the module.

4.0 Tests and Checks Conducted by the ATO for the Issuance of a Licence or Rating

4.1 When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with the ATO Procedures Manual, the manual shall include:

(a) The name(s) of the personnel with testing authority and the scope of the authority;

(b) The role and duties of the authorised personnel;

(c) If the ATO has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and

(d) The applicable requirements established by the Authority, such as:

(1) The procedures to be followed in the conduct of checks and tests; and

(2) The methods for completion and retention of testing records as required by the Authority.

5.0 Records

5.1 Policy and procedures regarding:

(a) Attendance records;

(b) Student training records;

(c) Personnel training and qualification records;

(d) Persons responsible for checking records and student personal logs;

(e) The nature and frequency of record checks;

(f) Standardisation of record entries;

(g) Personal log entries; and

(h) Security of records and documents.

6.0 Safety Management System (if applicable)

The requirement to adopt SMS practices is intended to be restricted to only those training entities whose activities directly impact the safe operation of aircraft. Should that requirement apply to the ATO, the ATO Procedures Manual, as stated in paragraph 1.9 of this IS, shall address the ATO's SMS with reference to a separate manual or shall include the SMS practices within the ATO Procedures Manual.

7.0 Quality Assurance

Provide a brief description of the quality assurance practices by reference to a separate Quality Manual or include the quality assurance practices within the ATO Procedures Manual.

8.0 Appendices (as required)

8.1 Sample logs, test reports, and records; and

8.2 A copy of the ATO's approval document.

IS 3.5.5.1 ATO PROCEDURES MANUAL – AIR TRAFFIC CONTROL TRAINING

(a) An ATO conducting flight crew training shall include the following in its ATO Procedures Manual or a separate training and procedures manual:

1.0 General

1.1 Preamble relating to the use and applicability of the manual.

1.2 Table of contents.

1.3 Amendment, revision, and distribution of the manual:

(a) Procedures for amendment;

(b) Record of amendments page;

(c) Distribution list; and

(d) List of effective pages.

1.4 Glossary of definitions and significant terms, including a list of abbreviations.

1.5 Description of the structure and layout of the manual, including:

(a) The various parts and sections, as well as their contents and use; and

(b) The numbering system for headings and paragraphs.

1.6 Description of the scope of training authorised under the ATO's training specifications.

1.7 A chart of the ATO's management organisation and the names of the post holders.

1.8 Qualifications, responsibilities, and succession of command of management and key operational personnel including:

(a) Accountable manager;

(b) Director of Training;

(c) Instructional services manager;

(d) Quality manager;

(e) Director of Maintenance, if applicable;

(f) Safety manager, if applicable;

(g) Instructors; and

(h) Examiners, evaluators, and auditors.

1.9 Policies dealing with the:

(a) ATO's objectives, including ethics and values;

(b) Selection of ATO personnel and the maintenance of their qualifications;

(c) Training programme design and development, including the need for programme validation and review, as well as the outsourcing of training programme development to third-party providers;

(d) Evaluation, selection, and maintenance of training material and devices;

(e) Maintenance of the training facilities and equipment;

(f) Development and maintenance of a quality system governance model; and

(g) Development and maintenance of a culture focused on safety in the workplace, including, when applicable, implementing an SMS governance model.

1.10 Description of the facilities and equipment available, including:

(a) General use facilities, including offices, stores and archives, and library or reference areas;

(b) The number and size of classrooms, including installed equipment; and

(c) The type and number of training devices, including their location if other than at the main training site.

2.0 Personnel Training

2.1 Identification of persons or positions responsible for the maintenance of performance standards and for ensuring the competency of personnel.

2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel, as required by 3.2.1.14 of this part.

2.3 Details of the initial and recurrent training programmes for all personnel, as required by 3.2.1.14 of this part.

2.4 Procedures for proficiency checks and upgrade training.

3.0 Client Training Programmes

Client training programmes cover each individual training programme conducted by the ATO for its customers. The training programmes consist of a training plan, a practical training syllabus, and a theoretical knowledge syllabus, if applicable, as described in paragraphs 3.1, 3.2, and 3.3 of this IS.

3.1 Training plan.

(a) The aim of the course in the form of a statement specifying what the student is expected to be able to do as a result of the training; the level of performance; and the training constraints to be observed.

(b) Pre-entry requirements, including:

(1) Minimum age;

(2) Education or qualification requirements;

(3) Medical requirements; and

(4) Linguistic requirements.

(c) Credits for previous knowledge, experience, or other qualifications, proof of which may be obtained from the Authority before the training commences.

(d) Training curricula, including:

(5) Theoretical training (knowledge);

(6) Practical training (skills);

(7) Training in the domain of human factors (attitudes);

Note: Guidance material to design training programmes on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(1) Assessment and examinations; and

(2) Monitoring of the training process, including the assessment and examination activities.

(e) Training policies in terms of:

(1) Restrictions regarding the duration of training periods for students and instructors; and

(2) If applicable, minimum rest periods.

(f) Policy for the conduct of student evaluation, including:

(1) Procedures for authorisation for tests;

(2) Procedures for remediation training before retest and for rewriting knowledge tests;

(3) Test reports and records;

(4) Procedures for skill progress checks and skill tests;

(5) Procedures for knowledge progress tests and knowledge tests, including procedures for knowledge test preparation, types of questions and assessments, and standards required for a pass; and

(6) Procedures for question analysis and review and for issuing replacement exams (applicable to knowledge tests).

(g) Policy regarding training effectiveness, including:

(1) Liaison procedures between training departments;

(2) Requirements for reporting and documentation;

(3) Internal feedback system for detecting training deficiencies;

(4) Interim performance or competency standards at various stages of training to ensure standardisation;

(5) Individual student responsibilities;

(6) Procedures for correcting unsatisfactory progress;

(7) Procedures for changing instructors;

(8) Maximum number of instructor changes per student; and

(9) Procedures for suspending a student from training.

3.2 Syllabi for non-competency-based training programmes.

(a) Practical training syllabus, including:

(1) A statement of how the course will be divided into phases, indicating how the phases will be arranged to ensure completion in the most suitable learning sequence and that exercises are repeated at the proper frequency;

(2) The syllabus hours for each phase and for groups of lessons within each phase and when progress tests are to be conducted;

(3) A statement of the standard of proficiency required before progressing from one phase of training to the next, including minimum experience requirements and satisfactory exercise completion before undertaking the next phase;

(4) Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications;

(5) Instruction for the conduct and documentation of all progress checks; and

(6) Instruction, where applicable, given to all examining personnel regarding the conduct of examinations and tests.

(b) Theoretical knowledge syllabus.

The syllabus for theoretical knowledge instruction shall be structured generally as outlined in paragraph 3.2(a) of this IS but with a training specification and objective for each subject.

3.3 Syllabus for competency-based training programmes.

(a) Training programmes focused on achieving desired standards of performance for specific jobs or tasks shall be competency based.

(b) Competency-based training programmes are based upon a job and task analysis to define the knowledge, skills, and attitudes required to perform a job or a task. Such programmes use an integrated approach in which the training of the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the underlying knowledge, skills, and attitudes related to the task in a more effective way.

(c) As a result, the syllabus is structured as a single document that is subdivided into modules containing a training objective and the same information outlined in paragraph 3.2(a) of this IS, but it is applied to both the theoretical knowledge and practical training delivered by the module.

4.0 Tests and Checks Conducted by the ATO for the Issuance of a Licence or Rating (if applicable)

When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with the ATO Procedures Manual, the manual shall include:

4.1 The name(s) of the personnel with testing authority and the scope of the authority;

4.2 The role and duties of the authorised personnel;

4.3 If the ATO has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and

4.4 The applicable requirements established by the Authority, such as:

(a) The procedures to be followed in the conduct of checks and tests; and

(b) The methods for completion and retention of testing records, as required by the Authority.

5.0 Records

Policy and procedures regarding:

5.1 Attendance records;

5.2 Student training records;

5.3 Personnel training and qualification records;

5.4 Persons responsible for checking records and student personal logs;

5.5 The nature and frequency of record checks;

5.6 Standardisation of record entries;

5.7 Personal log entries; and

5.8 Security of records and documents.

6.0 Safety Management System (if applicable)

The requirement to adopt SMS practices is intended to be restricted to only those training entities whose activities directly impact the safe operation of aircraft. Should that requirement apply to the ATO, the ATO Procedures Manual, as stated in paragraph 1.9 of this IS, shall address the ATO's SMS with reference to a separate manual or shall include the SMS practices within the ATO Procedures Manual.

7.0 Quality Assurance and Control Policies and Procedures

Provide a brief description of the quality assurance- and quality control practices, as required by IS 3.2.1.17, by reference to a separate Quality Manual, or include the quality assurance practices within the ATO Procedures Manual (refer to paragraph 9.0 of IS 3.2.1.17).

8.0 Appendices (as required)

8.1 Sample progress test forms;

8.2 Sample logs, test reports, and records; and

8.3 A copy of the ATO's approval document.

9.0 Air Traffic Controller Training – General

9.1 Qualifications, responsibilities, and succession of command of management and key operational personnel, in addition to those listed in paragraph 1.8 of this IS.

9.2 Policies and procedures, in addition to those listed in paragraph 1.9 of this IS.

9.3 Description of the facilities and equipment available, in addition to those listed in paragraph 1.10 of this IS, including:

(a) Computer-based classroom(s);

(b) Use of Tower Simulator;

(c) Use of Area- and Approach Control Simulator; and

(d) Briefing areas.

10.0 Aerodrome and Approach Procedural Control Course

10.1 General and Overview.

10.2 Basic Module Overview.

10.3 Aerodrome Control Rating and Approach Control Procedural Module Overview.

10.4 Simulation Training for Aerodrome and Procedural Control Course.

10.5 OJT Training.

11.0 Approach Control Surveillance Rating Course

11.1 General and Overview.

11.2 Approach Surveillance Control Rating Module Overview.

11.3 Simulation Training for Approach Surveillance Control Rating.

11.4 OJT Training.

12.0 Area Control Procedural and Surveillance Rating Course

12.1 General and Overview.

12.2 Area Control Procedural and Surveillance Rating Module Overview.

12.3 Problem Cue and Flight Data Display (FDD) Workstation Certification Training.

12.4 Simulation Training for Area Control Procedural Rating.

12.5 Simulation Training for Area Control Surveillance Rating.

12.6 Area Control OJT Training.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 4 — AIRCRAFT REGISTRATION AND MARKING

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Part 4 — Aircraft Registration and Marking

4.1 GENERAL

Note: This part places the responsibility for aircraft registration on the aircraft owner, as contained in the Civil Aviation Safety Act, as amended. The aircraft owner, or the operator if different from the owner, is responsible for proper marking of the aircraft prior to operation.

4.1.1.1 APPLICABILITY

(a) Part 4 prescribes the requirements for registration and marking of civil aircraft under the provisions of article 4, first paragraph of the Luchtvaartlandsverordening[1] (the Civil Aviation Act), article 5, second paragraph and article 8, first paragraph of the Landsbesluit Toezicht Luchtvaart[2] (Government Decree on Civil Aviation Safety Oversight).

(b) This part does not apply to meteorological pilot balloons or to unmanned free balloons.

4.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

4.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in Part 4:

(1) **ICAO –** International Civil Aviation Organization

(2) **IS –** Implementing Standards

(3) **RPA -** Remotely piloted aircraft.

4.2 REGISTRATION REQUIREMENTS

4.2.1.1 GENERAL

(a) No person may operate a civil aircraft that is eligible for registration under the laws of Curaçao unless that aircraft has been registered by its owner or operator under the provisions of the laws of Curaçao and the Authority has issued a Certificate of Registration for that aircraft which shall be carried aboard that aircraft for all operations.

(b) The Certificate of Registration shall be in the English language.

(c) Until 25 November 2026, the Director of the Curacao Civil Aviation Authority will issue the certificate of registration in the form as prescribed in IS 4.2.1.1(a)

(d) As of 26 November 2026, the Director of the Curaçao Civil Aviation Authority will issue the certificate of registration in the form as prescribed in IS 4.2.1.1(b)

Note: 1. Article 29 of the Chicago Convention requires that the certificate of aircraft registration be carried on board every aircraft engaged in international air navigation.

2. The form and size is at the discretion of the Director of the Curacao Civil Aviation Authority.

[1] P.B. 2019, no. 4 GT.
[2] P.B. 2003, no. 56, as amended.

4.2.1.2 REGISTRATION ELIGIBILITY

(a) An aircraft is eligible for registration if it is:

(1) Owned by:

(i) A citizen of Curaçao;

(ii) An individual citizen of another State who is lawfully admitted for permanent residence in Curaçao;

(iii) A corporation lawfully organized and doing business under the laws of Curaçao and the aircraft is based and primarily used in Curaçao; or

(iv) A government entity of Curaçao or a political subdivision thereof.

(2) Not registered under the laws of any other State.

4.2.1.3 APPLICATION

(a) A person who wishes to register an aircraft in Curaçao shall submit an application for aircraft registration to the Authority on a form and in a manner acceptable to the Authority. Each application shall:

(1) Certify as to compliance with 4.2.1.1 of this part;

i) If the applicant is a natural person as mentioned in article 3 paragraph 1 under a) of the Landsbesluit Toezicht Luchtvaart (Government Decree on Civil Aviation Safety Oversight: a recent (less than 6 months) certified copy of an entry in the Registry of Population shall be submitted;

ii) If the aircraft is owned by two or more natural persons as mentioned in article 3 paragraph 1 under a) of the Government Decree on Civil Aviation Safety Oversight, the following information shall be submitted:

A) Information as mentioned in 4.2.1.3 (a)(1)(i);

B) A signed statement of the owners declaring who will be appointed as the contact person.

iii) If the applicant is a legal person as mentioned in article 3 paragraph 1 under b) of the Government Decree on Civil Aviation Safety Oversight, the following information shall be submitted:

A) A recent (less than 6 months) certified copy of an entry in the commercial register of the Chamber of Commerce;

B) A certified copy of the articles of incorporation of the company.

iv) If the applicant is the holder of an aircraft, as indicated in article 3 of paragraph 2 of the Government Decree on Civil Aviation Safety Oversight, of which the owner is a foreigner or a foreign legal person, the following information shall be submitted:

A) A copy of the agreement between the owner and the holder;

B) A signed statement between the owner and the holder, declaring that the holder, pursuant to the Government Decree on Civil Aviation Safety Oversight, is accepting all obligations of the owner;

C) The holder (natural person) shall submit all information as mentioned under paragraphs 4.2.1.3 (a)(1)(ii) of this subpart;

D) The owner (foreign natural person) shall submit the information under paragraph 4.2.1.3 (a)(1)(i) as mentioned in the Register of Population of his/her place of residence, the information under paragraph 4.2.1.3.(a)(1)(ii) of this subpart and a proof of good conduct;

E) The holder (legal person) shall submit all the information as mentioned under paragraph 4.2.1.3 (a)(1)(iii);

F) The owner (foreign legal person) shall submit all the information mentioned under paragraph 4.2.1.3(a)(1)(iii) under 5) as given by the Chamber of Commerce, (or equivalent entity) of his/her place of residence, the information mentioned in paragraph 4.2.1.3(a)(1)(iii) under 6) of this subpart and a proof of good conduct/good standing of the shareholders mentioned in the stockholders register of the foreign legal person;

G) A written request, stating reasons to the Authority to admit registration.

v) An application for transference of an aircraft in the nationality register of Curaçao, shall be accompanied by a signed statement by the previous owner, declaring that the ownership of the aircraft has been transferred to applicant, mentioning the name, the residence and nationality of the applicant.

(vi) With regard to the information concerning the applicant/holder of the aircraft that shall be submitted along with the application for the transfer of registration, the provisions under paragraphs 4.2.1.3(a)(1) up to and including 4.2.1.3(a)(7) of this subpart are applicable.

(2) Show evidence identifying ownership;

(3) Be signed in ink;

(4) Be submitted with evidence that all customs requirements have been met and fulfilled;

(5) Comply with the applicable registration fee of NAFL 900;

(6) Be submitted with an excerpt of Chamber of Commerce, if applicable; and

(7) Be submitted with a proof of good conduct/good standing, if applicable.

(b) Upon an applicant meeting all requirements for registration, a certificate of registration will be issued by the Authority.

Note: If for this evaluation the Government employee in question must perform his duties in a foreign country, the travel and accommodation expenses for said person will be on applicants account. In this case the travel and accommodation allowances established by the Government will be used.

4.2.1.4 AIRCRAFT REGISTRY

(a) As required by the Curaçao regulations, the Authority shall maintain an aircraft registry showing for each aircraft registered by Curaçao, the information recorded on the Certificate of Registration and any other information required by the Authority.

(b) Upon request, Curaçao will provide information to another Contracting State or to ICAO as to aircraft registration and/or ownership of any particular aircraft registered in Curaçao.

(c) The certificate of deregistration will be issued by the Director of the Curacao Civil Aviation Authority in accordance with IS 4.4.1.4(a) and will be of a size determined by the Director of the Curacao Civil Aviation Authority.

4.2.1.5 CLASSIFICATION OF AIRCRAFT

(a) Aircraft shall be classified in accordance with the Table in IS 4.2.1.5.

(b) An aircraft that is intended to be operated with no pilot on board shall be further classified as unmanned.

(c) Unmanned aircraft shall include unmanned free balloons and remotely piloted aircraft.

4.2.1.6 DURATION OF CERTIFICATES OF REGISTRATION

(a) The Certificate of Registration has a validity period of maximum three years initiating from the issue date of the certificate. The validity period will be mentioned on the Certificate of Registration.

(1) The validity period of the Certificate of Registration will be renewed for the benefit of the owner/ holder who has submitted such a request, and paid the amount due under 4.2.1.3 (a)(1)(vi)(5)

(2) A request for renewal of the validity period must be filed at least 30 days before the expiration date, the following information shall be submitted;

(i) Certificate of Insurance.

(ii) Proof that ownership remained unchanged.

4.3 NATIONALITY AND REGISTRATION MARKS

4.3.1.1 APPLICABILITY

(a) This Subpart prescribes the requirements for the identification and marking of civil aircraft registered in Curaçao.

4.3.1.2 GENERAL

(a) No person may operate a civil aircraft registered in Curaçao unless the aircraft displays nationality and registration marks in accordance with the requirements of this section. The nationality mark and registration mark shall consist of a group of characters. The letter or letters used to identify the aircraft nationality of Curaçao shall conform to the requirements outlined in Annex 7 to the Convention on International Civil Aviation. The nationality mark consists of the letters ”PJ” and shall be followed by a series of numbers or letters assigned by the Authority. When the first character of the registration mark is a letter, it shall be preceded by a hyphen.

(b) Unless otherwise authorized by the Authority, no person may place on any aircraft a design, mark, or symbol that modifies or confuses the nationality and registration marks. Marks shall not be used which might be confused with the International Five Letter Code of Signals, Part II, the three-letter combinations beginning with Q used in the Q Code, and with the distress signal SOS, or other similar urgent signals, for example XXX, PAN and TTT.

Note.--- For reference to these codes, see the currently effective International Telecommunication Regulations.

(c) Permanent marking of aircraft nationality and registration shall:

(1) Be painted on the aircraft or affixed by other means insuring a similar degree of permanence;

(2) Have no ornamentation;

(3) Contrast in colour with the background;

(4) Be legible, and

(5) Be kept clean and visible at all times.

4.3.1.3 DISPLAY OF MARKS: GENERAL

(a) No person shall operate an aircraft in Curaçao unless that aircraft displays on that aircraft marks consisting of the Roman capital letters “PJ” denoting the nationality of the Curaçao Registry, followed by the registration mark of the aircraft in Arabic numerals, Roman capital letters, or a combination thereof.

4.3.1.4 SIZE OF MARKS

(a) No person shall operate an aircraft unless that aircraft displays marks meeting the size requirements of this section.

(b) Height. The character marks shall be of equal height and on:

(1) Heavier -than -air aircraft shall be at least;

(i) 50 centimeters high if on the wings; and

(ii) 30 centimeters high if on the fuselage (or equivalent structure) and vertical tail surfaces; or

(iii) Identified readily if the aircraft processes no wings and fuselage.

(2) Lighter-than-air aircraft shall be at least 50 centimeters high.

(3) The character marks of other lighter-than-air aircraft that is not of sufficient size to accommodate marks of at least 50 centimeters high shall be determined by the Authority, taking into account the size of the payload to which the identification plate is affixed.

(c) Width. Characters and the length of hyphens shall be two-thirds as wide as they are high, except the number "1" and the letter “I”.

(d) Thickness. Characters and hyphens shall be formed by solid lines one-sixth as thick as the character is high.

(e) Spacing. The space between each character may not be less than one-fourth of a character width. A hyphen shall be regarded as a character for this purpose.

(f) Uniformity. The marks required by this Part for fixed-wing aircraft must have the same height, width, thickness, and spacing on both sides of the aircraft.

4.3.1.5 LOCATION OF MARKS ON HEAVIER-THAN-AIR AIRCRAFT

(a) No person shall operate a fixed-wing aircraft unless it displays the marks once on the lower surface of the wing structure as follows:

(1) The marks shall be located on the left half of the lower surface of the wing structure unless they extend across the whole of the lower surface of the wing structure.

(2) So far as is possible, the marks shall be located equidistant from the leading and trailing edges of the wings.

(3) The tops of the letters and numbers shall be toward the leading edge of the wing.

(b) On a heavier than air aircraft with a fuselage (or equivalent structure) and/or a vertical tail surface, the marks shall appear on either the vertical tail surfaces or the sides of the fuselage as follows:

(1) If displayed on the vertical tail surfaces, horizontally on both surfaces of a single vertical tail or on the outer surfaces of a multi-vertical tail.

(2) If displayed on the fuselage surfaces, horizontally on both sides of the fuselage between the wings and the tail surface.

(3) If engine pods or other appurtenances are located in the area described in paragraph 4.3.1.5(b)(2) of this subsection and are an integral part of the aircraft, the marks may appear on those pods or appurtenances.

4.3.1.6 LOCATION OF MARKS ON LIGHTER-THAN-AIR AIRCRAFT

(a) Airships. No person shall operate an airship unless it displays marks on:

(1) The hull, located lengthwise on each side of the hull and on its upper surface on the line of symmetry; or

(2) The horizontal and vertical stabilizers surfaces:

(i) For the horizontal stabilizer, located on the right half of the upper surface and on the left half of the lower surface, with the tops of the letters and numbers toward the leading edge; and

(ii) For the vertical stabilizer, located on each side of the bottom half stabilizer, with the letters and numbers placed horizontally.

(b) Lighter-than-air aircraft. No person shall operate any lighter-than-air aircraft unless it displays marks visible both from the sides and from the ground.

4.3.1.7 SPECIAL CASES FOR SIZE AND LOCATION OF MARKS

(a) If either one of the surfaces authorised for displaying required marks is large enough for display of marks meeting the size requirements of this section and the other is not, the full-size marks shall be placed on the larger surface.

(b) If neither surface is large enough for full-size marks, the Authority may approve marks as large as practicable for display on the larger of the two surfaces.

(c) If, because of the aircraft configuration, it is not possible to mark the aircraft in accordance with this Part, the owner may apply to the Authority for a different procedure, taking account of the need for the aircraft to be identified readily.

4.3.1.8 SALE OF AIRCRAFT: REMOVAL OF MARKS

(a) When an aircraft that is registered in Curaçao is sold, the holder of the certificate of registration shall remove, before its delivery to the purchaser, all nationality and registration marks of Curaçao, unless the purchaser is a citizen or other legal entity as prescribed in 4.2.1.2(a)(1) of this part.

4.3.1.9 IDENTIFICATION PLATE REQUIRED

(a) No person shall operate an aircraft registered under the laws of Curaçao unless an identification plate is affixed to the aircraft:

(1) Containing the aircraft type, model, serial number, marks of nationality and registration mark.

(2) Made of fireproof metal or other fireproof material of suitable physical properties.

(3) Secured to the aircraft:

(i) in a prominent position near the main entrance, or,

(ii) in the case of a remotely piloted aircraft, secured in a prominent position near the main entrance or compartment or affixed conspicuously to the exterior of the aircraft if there is no main entrance or compartment.

Note: The registration mark (number) on the identification plate shall be changed each time the aircraft registration changes.

4.4 AIRCRAFT DEREGISTRATION

4.4.1.1 APPLICABILITY

(a) This Subpart prescribes the requirements for the deregistration of civil aircraft registered in Curaçao.

4.4.1.2 GENERAL

(a) No person may register or cause to be registered a civil aircraft that is registered under the laws of Curaçao, in any other State unless that aircraft has been deregistered by its owner or operator and the Authority has issued a certificate of deregistration for that aircraft.

4.4.1.3 CERTIFICATE OF DEREGISTRATION

(a) The certificate of deregistration shall be in English.

(b) The Director of the Curacao Civil Aviation Authority will issue the certificate of deregistration in the form as prescribed in IS 4.4.1.3(a) and of a size determined by the Director.

(c) If a Contracting State or common mark registering authority issues a certificate of deregistration, it shall issue the certificate in accordance with IS 4.4.1.3(a)

4.4.1.4 ISSUANCE OF A CERTIFICATE OF DEREGISTRATION

(a) The authority will issue a certificate of deregistration if:

(1) The registration and nationality mark has been removed by a means that it is not visible.

(2) The identification plate and 24-bit aircraft address has been removed from the aircraft.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 4 — IMPLEMENTING STANDARDS

IS 4.2.1.1 CERTIFICATE OF REGISTRATION

(a) Until 25 November 2026, the certificate of registration issued by the Curaçao Civil Aviation Authority shall be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority** **CERTIFICATE OF REGISTRATION**	**No.:** This certificate shall be carried in the aircraft at all times.

1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial no.

4. Name of owner

(holder)

5. Address of owner

(holder)

6. It is hereby certified that the above described aircraft has been duly entered on the nationality register of Curaçao in accordance with the Convention on International Civil Aviation dated 7 December 1944 and with the Article 3, paragraphs 1 and 2 and the Article 4, paragraph 1 of the Civil Aviation Act of Curaçao and regulations issued thereunder.

Date of first issue

Date of issue

Signature _____

For the Minister of Traffic, Transport and Urban Planning

(Director General Curaçao Civil Aviation Authority)

Date of expiry

This certificate is issued for registration purposes only and is not a certificate of title. The Curaçao Civil Aviation Authority does not determine rights of ownership as between private parties.

CCAA form 001A

(b) As of 26 November 2026, the certificate of registration issued by the Curaçao Civil Aviation Authority shall be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority** **CERTIFICATE OF REGISTRATION**	**No.:** This certificate shall be carried in the aircraft at all times.

1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number.

4a. Issued to

Basis of registration

- ☐ Ownership of aircraft
- ☐ Operator of aircraft
- ☐ other (*explain*):

4b. Address of certificate holder

5. Name and contact information of owner, if different from certificate holder.

6. It is hereby certified that the above described aircraft has been duly entered on the nationality register of Curaçao in accordance with the Convention on International Civil Aviation dated 7 December 1944 and with the Article 3, paragraphs 1 and 2 and the Article 4, paragraph 1 of the Civil Aviation Act of Curaçao and regulations issued thereunder.

Date of issue

Signature _____

For the Minister of Traffic, Transport and Urban Planning

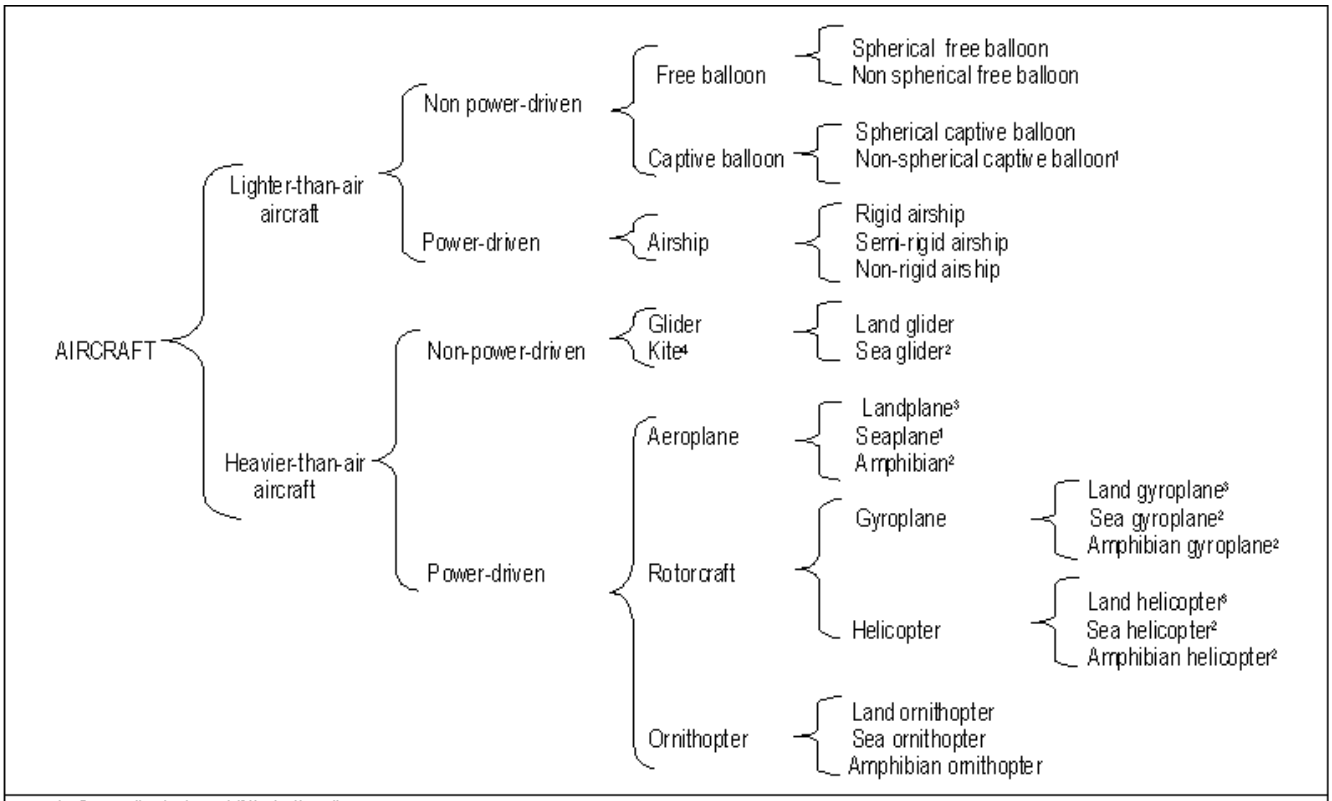
(Director General Curaçao Civil Aviation Authority)

Date of expiry

This certificate is issued for registration purposes only and is not a certificate of title. The Curaçao Civil Aviation Authority does not determine rights of ownership as between private parties.

CCAA form 001A

IS 4.2.1.5 CLASSIFICATION OF AIRCRAFT



1. Generally designed "kite-balloon".
2. "Float" or "boat" may be added as appropriate.
3. Includes aircraft equipped with ski-type landing gear (substitute "ski" for "land").
4. For the purpose of completeness only.

IS 4.4.1.3 CERTIFICATE OF DEREGISTRATION

(a) The certificate of deregistration issued by the Director of the Curaçao Civil Aviation Authority shall be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority** **CERTIFICATE OF DEREGISTRATION**	**No.:** This certificate shall be carried in the aircraft at all times.

1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number.

4a. Issued to

Basis of registration

- ☐ Ownership of aircraft
- ☐ Operator of aircraft
- ☐ other

4b. Address of certificate holder

5. Name and contact information of owner, if different from certificate holder.

6. It is hereby certified that the above described aircraft has been duly removed from the Curacao Civil Aviation Registry on……and the Certificate of Registration has been cancelled.

6a. Reason(s) for deregistration, if known:

Date of issue

Signature _____
For the Minister of Traffic, Transport and Urban Planning
(Director General Curaçao Civil Aviation Authority)

CCAA form 001B

CURAÇAO CIVIL AVIATION REGULATIONS

PART 5 – AIRWORTHINESS

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PART 5 – AIRWORTHINESS

5.1 GENERAL

5.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for:

(1) Certification of aircraft and aeronautical products;

(2) Issuance of certificates of airworthiness;

(3) Continuing airworthiness of aircraft and aeronautical products;

(4) Aircraft maintenance and inspection; and

(5) Continuing airworthiness records.

5.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

(b) Expanded definitions of the following terms are contained in IS 5.1.1.2(B):

(1) Major modifications

(2) Major repairs

(3) Preventive maintenance

5.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AC –** Advisory Circular

(2) **AD –** Airworthiness Directive

(3) **AOC –** air operator certificate

(4) **AMO –** approved maintenance organisation

(5) **AMT –** aviation maintenance technician

(6) **ICAO –** International Civil Aviation Organization

(7) **IS –** Implementing Standards

(8) **RPA –** remotely piloted aircraft

(9) **RPAS –** remotely piloted aircraft system

(10) **RPS –** remote pilot station

(11) **STC –** supplemental type certificate

(12) **TC –** type certificate

(13) **TSO –** technical standard order

5.2 CERTIFICATION OF AIRCRAFT AND AERONAUTICAL PRODUCTS

Note: This part presumes that Curaçao does not presently have the capabilities or demand to issue its own original type *certification and will therefore not be the State of Design or State of Manufacture. Therefore, Curaçao will either issue its own certificate of airworthiness or validate the certificate of airworthiness issued by another State in accordance with this part. In either case, Curaçao is responsible for the continuing airworthiness of aircraft on its registry and for ensuring that non-Curaçao-registered aircraft operated within Curaçao are maintained in accordance* with *the* continuing airworthiness requirements of the State of Registry*. See ICAO Annex 8, Part II: 4.2, for Contracting States' responsibilities with respect to continuing airworthiness.*

5.2.1.1 APPLICABILITY

(a) This part applies to operators of aircraft within Curaçao.

(b) No person may operate an aircraft within Curaçao or apply for registration of an aircraft in Curaçao unless that aircraft and the aeronautical products therein have received type certification from the State of Design and production approval from the State of Manufacture by the appropriate regulatory agencies of those States in accordance with the Standards of ICAO Annex 8.

5.2.1.2 AIRWORTHINESS CODE FOR AIRCRAFT CATEGORIES

(a) An applicant for a Type Certificate for an aircraft, or for the acceptance or validation thereof, shall submit with the application detailed data identifying the airworthiness standards to which describes the design, construction and performance of that aircraft.

(b) The Authority shall accept or validate a Type Certificate, in respect of any aircraft, engine or propeller that is imported into Curacao, subject to such condition or limitations as it shall consider appropriate, provided that;

(c) The Authority of the State of Manufacture has issued a Type Certificate on the basis of the United States Federal Aviation Regulations, European Aviation Safety Agency Certification Specifications or Canadian Civil Aviation Regulations;

(1) Fixed wing type aircraft of the category T and fixed wing aircraft must comply with (CFR) 14 Part 25, CS 25 or CARs 525.

(2) Fixed wing type aircraft of the category N, U and A must comply with the (CFR) 14 Part 23, CS 23 or CARs 523.

(3) Rotary wing type aircraft of the category A and B must comply with the (CFR) 14 Part 29, or CARs 529.

(4) Rotary wing type aircraft of the category N must comply with the (CFR) 14 Part 27, or CARs 527.

(c) Category N aircraft used in transport flights:

Aircraft of category N being used in transport flights, must comply with the requirements in subpart 5.2.1.2.(c)(2).2, 5.2.1.2.(c)(4) and CCAR Part 9.

(e) Other aircraft usages:

(1) Fixed wing aircraft used for banner towing must comply with the requirements in subpart 5.2.1.2.(c)

(2) Aircraft being used for crop dusting must comply with the requirements in subpart 5.2.1.2 (c).

(3) Fixed wing aircraft used for parachute jumping must comply with the requirements in subpart 5.2.1.2.(c) and with the Code of Federal Regulation (CFR) 14 Part 105

(f) The Type Certificate approval basis meets the airworthiness requirements laid down by the Authority.

(g) Without prejudice to paragraph (c), the Authority may at its discretion accept or validate a Type Certificate that is issued by the Airworthiness Authority of the State of manufacture where the Type Certificate approval basis meets the airworthiness requirements laid down by the Authority.

5.2.1.3 ISSUANCE OF A SUPPLEMENTAL TYPE CERTIFICATE

(a) Any person who proposes to modify a product by introducing a major change in type design not great enough to require a new application for a TC shall apply for an STC to the regulatory agency of the State of Design that approved the TC for that product or to the State of Registry of the aircraft, provided that the State of Registry has the technical expertise to evaluate the proposed change in accordance with the type design. The applicant shall apply for the STC in accordance with the procedures prescribed by that State.

(b) The Authority will, upon receiving a request for an STC for an aircraft registered in Curaçao:

(1) Forward the request to the State of Design; or

(2) If applicable, issue an STC using the same regulatory and other guidance as the State of Design and State of Manufacture.

Note 1: Technical expertise needed by the State of Registry in order to approve an STC includes aeronautical engineers with specific expertise in the field to be approved.

Note 2: If the State of Registry is not the State of Design, the State of Registry may elect to forward a request for an STC to the State of Design.

5.3 ISSUANCE OF CERTIFICATES OF AIRWORTHINESS

5.3.1.1 APPLICABILITY

(a) This subpart prescribes procedures required for the issue of certificates of airworthiness and other certifications for aeronautical products registered in Curaçao.

(b) The Authority will issue a certificate of airworthiness for aircraft registered in Curaçao based on satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements (TC).

5.3.1.2 ELIGIBILITY

(a) Any registered owner, or agent of the owner, of Curaçao-registered aircraft may apply for a certificate of airworthiness for that aircraft.

(b) Each applicant for a certificate of airworthiness shall apply on a form and in a manner acceptable to the Authority.

5.3.1.3 AIRCRAFT IDENTIFICATION

(a) Each applicant for a certificate of airworthiness shall show that the aircraft has the proper identification plates.

5.3.1.4 CLASSIFICATIONS OF CERTIFICATES OF AIRWORTHINESS

(a) The Authority will issue a standard certificate of airworthiness for aircraft in the specific category and model designated by the State of Design in the TC. The types of standard certificates of airworthiness include:

(1) Normal

(2) Utility

(3) Acrobatic

(4) Transport

(5) Commuter

(6) Other

(b) The Authority will issue a special certificate of airworthiness for aircraft that do not meet the requirements of the State of Design for a standard certificate of airworthiness. The types of special certificates of airworthiness include:

(1) Primary

(2) Restricted

(3) Limited

(4) Provisional

(5) Experimental

(6) Special flight permits

(7) Other

5.3.1.5 ISSUANCE OF A STANDARD CERTIFICATE OF AIRWORTHINESS

(a) The Authority will issue a standard certificate of airworthiness if:

(1) The applicant presents evidence to the Authority that the aircraft conforms to a type design approved under a TC or an STC and to the applicable ADs of the State of Design;

(2) The aircraft has been inspected in accordance with the performance rules of Subpart 5.6 of this part for inspections and found airworthy within the last 30 calendar days by persons authorised by the Authority to make such determinations;

(3) The Authority finds, after an inspection, that the aircraft conforms to the type design and is in a condition for safe operation;

(4) The applicant comply with the applicable Certificate of Airworthiness fee which. is for a) issuing or renewal of a Certificate of Airworthiness, the amount of ANG 400,= increased with ANG 200,= for each 1000 kilograms or part thereof by which the maximum takeoff weight of the aircraft surpasses 1000 kilograms; b) for reissue: the amount of ANG 200,=.

(5) The application for a Certificate of Airworthiness must be done using an application Form which is available at the Authority. The application will not be dealt with as long as the applicant has not settled the amount due;

(6) The amount due is deposited on the bank account of the Authority providing the necessary references and descriptions;

(7) If the validity of the Certificate of Airworthiness is suspended or revoked or based on the investigation by the Authority of the CCAA and it can be concluded that through fault of the applicant an evaluation of the airworthiness could not be performed, the amount deposited will not be refunded;

(8) The expenses and risks related to the evaluation of the airworthiness of an aircraft are for the account of the applicant, excluding the expenses and risks for the person(s) assigned for this evaluation by the Authority;

(9) As of 26 November 2026, for an RPA, the Authority finds, after an inspection, that the RPAS, as a complete system, conforms to the type design and is in a condition for safe operation.

Note: If for this evaluation the Government employee in question must perform his duties in a foreign country, the travel and accommodation expenses for said person will be on applicants account. In this case the travel and accommodation allowances established by the Government will be used.

(b) When issuing its standard certificate of airworthiness, the Authority may consider the previous certificate of airworthiness issued by another Contracting State as satisfactory evidence, in whole or in part, that the aircraft complies with the applicable requirements of this part.

Note: Some Contracting States facilitate the transfer of aircraft onto the register of another State by the issuance of an export certificate of airworthiness or similarly titled document. While not valid for the purpose of flight, such a document provides confirmation by the exporting State of a recent satisfactory review of the airworthiness status of the aircraft. Guidance on the issue of an export certificate of airworthiness is contained in ICAO Doc 9760, Airworthiness Manual.

(c) Until 25 November 2026, the standard certificate of airworthiness will contain the information as prescribed in IS 5.3.1.5(a).

(d) As of 26 November 2026, the certificate of airworthiness for all aircraft except RPA will contain the information as prescribed in IS 5.3.1.5(a).

(e) As of 26 November 2026, the standard certificate of airworthiness for all RPA will contain the information shown in IS 5.3.1.5(b).

(f) The standard certificate of airworthiness will be issued in English.

5.3.1.6 ISSUANCE OF A SPECIAL CERTIFICATE OF AIRWORTHINESS

(a) The Authority will issue a special certificate of airworthiness to an aircraft that does not qualify for a standard certificate of airworthiness.

(b) When issuing its special certificate of airworthiness, the Authority may consider the previous special certificate of airworthiness issued by another Contracting State as satisfactory evidence, in whole or in part, for the issuance of a special certificate of airworthiness.

(c) Aircraft certificated under a special certificate of airworthiness shall be subject to operating limitations within Curaçao and may not be used for international flights except as specified in paragraph 5.3.1.6(d) of this subsection. The Authority will issue specific operating limitations for each special certificate of airworthiness.

(d) No person may operate an aircraft with a special certificate of airworthiness:

(1) Except in accordance with the applicable regulations and in accordance with terms, conditions, and limitations that may be prescribed by the Authority as part of this certificate; or

(2) Over any foreign country without the permission of that country.

(e) The special certificate of airworthiness will be issued on a form and in a manner as prescribed in IS 5.3.1.6.

5.3.1.7 ISSUANCE OF A SPECIAL FLIGHT PERMIT AS A SPECIAL CERTIFICATE OF AIRWORTHINESS

(a) The Authority will issue a special flight permit, using the certificate as prescribed in IS 5.3.1.6, to an aircraft that is capable of safe flight but is unable to meet applicable airworthiness requirements, for the purpose of:

(1) Flying to a base where maintenance, overhaul, modifications, repairs, or inspections are to be performed or to a point of storage;

(2) Testing after maintenance, overhaul, modifications, repairs, or inspections have been performed;

(3) Delivering or exporting the aircraft;

(4) Evacuating aircraft from areas of impending danger; and

(5) Operating at mass in excess of the aircraft's maximum certificated take-off mass for flight beyond normal range over water or land areas where adequate landing facilities or appropriate fuel is not available. The excess mass is limited to additional fuel, fuel-carrying facilities, and navigation equipment necessary for the flight.

(b) The Authority may issue a special flight permit with continuing authorisation to an aircraft that may not meet applicable airworthiness requirements but is capable of safe flight, for the purpose of flying aircraft to a base where maintenance or modifications are to be performed. The permit issued under this paragraph is an authorisation, including terms, conditions, and limitations for flight, that is set forth in the AOC holder's operations specifications. The permit under this paragraph may be issued to an AOC holder certificated under Part 9 of these regulations.

(c) In the case of a special flight permit, the Authority will require a properly executed approval for return to service in the aircraft's permanent record by a person or organisation, authorised in accordance with this part, stating that the subject aircraft has been inspected and found to be safe for the intended flight.

(d) The air operator shall obtain all required overflight authorisations from countries to be overflown on flights outside Curaçao.

5.3.1.8 DURATION OF A CERTIFICATE OF AIRWORTHINESS

(a) A certificate of airworthiness or special certificate of airworthiness has a validity of one year, unless sooner surrendered, suspended, or revoked or unless a special expiration date is otherwise established by the Authority:

(1) A certificate of airworthiness will be renewed or will remain in effect, subject to the laws of the State of Registry:

(i) As long as the aircraft is maintained in accordance with the continuing airworthiness requirements of the State of Registry;

(ii) Until the aircraft is sold to a person outside Curaçao;

(iii) Until the aircraft is leased for operations, registered in another country, and removed from the registry of Curaçao; or

(iv) Until revoked by the State of Registry.

(2) A special certificate of airworthiness, such as a special flight permit, is valid for the period of time specified in the certificate.

(b) The continuing airworthiness of the aircraft shall be determined by a periodic inspection at appropriate intervals having regard to lapse of time and type of service.

(c) Failure to maintain an aircraft in an airworthy condition, as defined by the appropriate airworthiness requirements of the State of Registry, shall render the aircraft ineligible for operations until it is restored to an airworthy condition.

(d) As of 26 November 2026, for RPA, that which must be restored to an airworthy condition includes the RPS controlling the RPA, the required C2 Link(s), or any other components defined by the appropriate airworthiness requirements.

5.3.1.9 COOPERATION AMONG STATES FOR CONTINUING AIRWORTHINESS INFORMATION, INCLUDING AIRWORTHINESS DIRECTIVES

(a) Upon registration of an aircraft in Curaçao, the Authority will notify the State of Design of the aircraft of the registration in Curaçao and will request that the Authority receive any and all ADs addressing that aircraft, or as of 26 November 2026, an RPA, or aeronautical product and any requirements for the establishment of specific continuing airworthiness maintenance programmes.

(b) Whenever the State of Design considers that a condition in an aircraft, or as of 26 November 2026, an RPA, or aeronautical product is unsafe, as shown by the issuance of an AD by that State, the Authority will make the requirements of such directives apply to Curaçao-registered civil aircraft of the type identified in that AD.

(c) The Authority may identify manufacturers' service bulletins and other sources of data, or develop and prescribe inspections, procedures, and limitations, for mandatory compliance pertaining to affected aircraft in Curaçao.

(d) No person may operate any Curaçao-registered civil aircraft to which the measures of this subsection apply, except in accordance with the applicable mandatory continuing airworthiness information.

5.3.1.10 AMENDMENT OF A CERTIFICATE OF AIRWORTHINESS

(a) The Authority may amend a certificate of airworthiness or a special certificate of airworthiness:

(1) Upon application from an aircraft owner, operator, or agent; or

(2) On its own initiative.

(b) An amendment may be made under the following conditions:

(1) Modification to the aircraft (STC or amended TC);

(2) A change to the Authority and basis for issue;

(3) A change in the aircraft model; and

(4) A change in the operating limitations for an aircraft with a special certificate of airworthiness.

5.3.1.11 TRANSFER OR SURRENDER OF A CERTIFICATE OF AIRWORTHINESS

(a) An owner shall transfer the certificate of airworthiness for an aircraft to the:

(1) Lessee upon lease of the aircraft within or outside Curaçao

(2) Buyer upon sale of the aircraft within Curaçao

(b) An owner shall surrender the certificate of airworthiness for an aircraft to the issuing Authority upon sale of that aircraft outside of Curaçao.

5.3.1.12 COMMERCIAL AIR TRANSPORT

(a) The Authority will consider a certificate of airworthiness valid for commercial air transport only when accompanied by operations specifications, issued by the Authority, that identify the specific types of commercial air transport authorised.

5.3.1.13 DISPLAY OF A CERTIFICATE OF AIRWORTHINESS

(a) No person may operate a civil aircraft in Curaçao or registered in Curaçao unless the certificate of airworthiness required by this subpart, or a special flight permit, is displayed at the cabin or flight deck entrance so that it is legible to passengers or crew.

5.4 CONTINUING AIRWORTHINESS OF AIRCRAFT AND AERONAUTICAL PRODUCTS

5.4.1.1 APPLICABILITY

(a) This subpart prescribes rules governing the continuing airworthiness of civil aircraft, and as of 26 November 2026, RPA, registered in Curaçao whether operating inside or outside the borders of Curaçao.

(b) The Authority will, if it is the State of Registry for an aircraft, or as of 26 November 2026, an RPA, develop or adopt requirements to ensure the continuing airworthiness of the aircraft during its service life, including requirements to ensure that the aircraft:

(1) Continues to comply with the appropriate airworthiness requirements after a modification, a repair, or the installation of a replacement part;

(2) Is maintained in an airworthy condition and in compliance with the continuing airworthiness requirements;

(c) The Authority will, if it is the State of Registry, assess and take appropriate action upon receipt of mandatory continuing airworthiness information from the State of Design regarding registered aircraft, and as of 26 November 2026, an RPA.

5.4.1.2 GENERAL

(a) No person may perform maintenance, overhaul, modifications, repairs, or inspections on an aircraft, or as of 26 November 2026, an RPA, or aeronautical product other than as prescribed in this regulation.

(b) No person may operate an aircraft for which a manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness have been issued that contain an airworthiness limitation section unless the mandatory replacement times, inspection intervals, and related procedures specified in that section or alternative inspection intervals and related procedures set forth in the operations specifications approved under Part 9 of these regulations, or in accordance with the inspection programme approved under Part 8 of these regulations, have been complied with.

(c) No person may operate an aircraft, or as of 26 November 2026, an RPA, or aeronautical product to which an AD, issued by either the State of Design or State of Manufacture and adopted for Curaçao-registered aircraft by the Authority or by the State of Registry for aircraft operated within Curaçao, applies, except in accordance with the requirements of that AD.

(d) When the Authority determines that an aeronautical product has exhibited an unsafe condition and that condition is likely to exist or to develop in other products of the same type design, the Authority may issue an AD prescribing inspections and the conditions and limitations, if any, under which those products may continue to be operated.

(e) The Authority will report any ADs or additional continuing airworthiness requirements that it issues, or any malfunction or defect reports, to the State of Design.

5.4.1.3 RESPONSIBILITY

(a) The owner or operator of an aircraft, or in the case of a leased aircraft, the lessee, shall be responsible for maintaining the aircraft in an airworthy condition by ensuring that:

(1) All maintenance, overhaul, modifications, repairs, or inspections that affect airworthiness are performed as prescribed by the State of Registry;

(2) Maintenance personnel make appropriate entries in the aircraft continuing airworthiness records certifying that the aircraft is airworthy;

(3) The approval for return to service is completed to the effect that the maintenance work performed has been completed satisfactorily and in accordance with the prescribed methods; and

(4) In the event there are open discrepancies, the approval for return to service includes a list of the uncorrected maintenance items for which temporary relief is provided in the minimum equipment list, and these items are made a part of the aircraft permanent record.

(b) The owner or operator of an aeroplane over 5 700 kg maximum certificated take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the organisation responsible for the type design and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Authority.

Note: Guidance on the interpretation of "the organization responsible for the type design" is contained in the Airworthiness Manual (Doc 9760).

5.4.1.4 MAINTENANCE AND OPERATIONAL EXPERIENCE

(a) The owner or operator of an aeroplane over 5 700 kg maximum certificated take-off mass, or as of 26 November 2026, an RPA, shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and have a system whereby information on faults, malfunctions, defects, and other occurrences that cause or might cause adverse effects on the continuing

airworthiness of the aircraft is transmitted to the organisation responsible for the type design of the aircraft. Whenever this information relates to an engine or propeller, such information shall be transmitted to both the organization responsible for engine or propeller type design and the organization responsible for aircraft type design.

(b) The owner or operator and AMO shall, with respect to aeroplanes over 5 700 kg maximum certificated take-off mass, helicopters over 3 175 kg maximum certificated take-off mass, or as of 26 November 2026, an RPA, report to the Authority the service information required by the Authority according to the procedure established by the Authority.

(c) The owner or operator and AMO shall, with respect to aeroplanes over 5 700 kg maximum certificated take-off mass, helicopters over 3 175 kg maximum certificated take-off mass, or as of 26 November 2026, an RPA, transmit to the organisation responsible for the type design of the aircraft information on faults, malfunctions, defects, and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft.

5.4.1.5 REPORTING OF FAILURES, MALFUNCTIONS, AND DEFECTS

(a) Owners or operators of aircraft, or as of 26 November 2026, an RPA, shall report to the Authority any failure, malfunction, or defect concerning at least the following:

(1) Fires during flight and whether or not a fire-warning system was installed and functioned properly;

(2) A false fire warning during flight;

(3) An engine precautionary shutdown;

(4) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight due to foreign object ingestion or icing;

(9) Shutdown during flight of more than one engine;

(10) A propeller feathering system or the ability of the system to control overspeed during flight;

(11) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;

(12) A landing gear extension or retraction or opening or closing of landing gear doors during flight;

(13) A brake system component that results in loss of brake actuating force when the aircraft is in motion on the ground;

(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Authority;

(16) Aeronautical products or systems that require emergency actions during flight (except action to shut down an engine);

(17) An interruption to a flight, an unscheduled change of aircraft en-route, or an unscheduled stop or diversion from a route, caused by known or suspected technical difficulties or malfunctions;

(18) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure; and

(19) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

(b) Owners or operators of aircraft, or as of 26 November 2026, an RPA, shall report to the Authority:

(1) The number of engines removed prematurely because of malfunction, failure, or defect, listed by make and model and the aircraft type in which they were installed; and

(2) The number of propeller featherings in flight, listed by type of propeller, engine, and aircraft on which the propellers were installed.

(c) Each report required by this subsection shall:

(1) Be made within 3 days after determining that the failure, malfunction, or defect required to be reported has occurred; and

(2) Include as much of the following information as is available and applicable:

(i) The aircraft serial number;

(ii) When the failure, malfunction, or defect is associated with an aeronautical product approved under a TSO authorisation, the product serial number and model designation, as appropriate;

(iii) When the failure, malfunction, or defect is associated with an engine or a propeller, the engine or propeller serial number, as appropriate;

(iv) Identification of the part, component, or system involved, including the part number; and

(d) The nature of the failure, malfunction, or defect. The Authority, if it is the Authority of the State of Registry of the aircraft, or as of 26 November 2026, the RPA, will submit all such reports, upon receipt, to the State of Design.

(e) The Authority, if it is not the Authority of the State of Registry of the aircraft, or as of 26 November 2026, the RPA, will submit all such reports, upon receipt, to the State of Registry.

Note: Where the State of Design is other than the State of Manufacture, ICAO Annex 8, Part II, Chapter 4, 4.2.1.4, requires the State of Design and State of Manufacture to have a mutual arrangement for the transmission of continuing airworthiness information for appropriate action on the part of each State.

5.5 AIRCRAFT MAINTENANCE AND INSPECTION REQUIREMENTS

Note 1: FAA AC 43.13-1B, Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair*, is an example of an acceptable standard for the inspection and repair of non-pressurised aircraft when there are no manufacturer repair or maintenance instructions. FAA AC 43.13-2B,* Acceptable Methods, Techniques, and Practices – Aircraft Alterations*, contains acceptable methods for modification of non-pressurised aircraft when there are no manufacturer repair or maintenance instructions.*

Note 2: As of 26 November 2026, when the word "aircraft" is used, it includes the remotely piloted aircraft.

5.5.1.1 APPLICABILITY

(a) This subpart prescribes rules governing the maintenance and inspection of any aircraft having a certificate of airworthiness issued by Curaçao, or of any associated aeronautical products.

5.5.1.2 GENERAL REQUIREMENTS FOR MAINTENANCE AND INSPECTIONS

(a) No person may operate an aircraft unless the aircraft and aeronautical products and operational and emergency equipment are maintained in accordance with a maintenance programme and the aircraft and aeronautical product is inspected according to an inspection programme approved by the Authority.

(b) The maintenance programme shall include a description of the aircraft and aeronautical products and the recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.

(c) The maintenance programme shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.

(d) Maintenance tasks and frequencies that have been specified as mandatory by the State of Design in approval of the type design shall be identified in the maintenance programme.

(e) The maintenance programme shall have an approval for return to service process, including signed documentation, in a manner satisfactory to the Authority, indicating that the maintenance performed has been completed satisfactorily. An approval for return to service shall contain a certification including:

(1) Basic details of the maintenance carried out;

(2) The date such maintenance was completed;

(3) When applicable, the identity of the AMO, AMT, or AOC holder; and

(4) The identity of the person or persons signing the approval for return to service.

(f) The owner or operator shall use one of the following inspection programmes, as appropriate for the aircraft and the type of operation:

(1) Annual inspection;

(2) Annual/100-hour inspection;

(3) Progressive inspection; or

(4) Continuing airworthiness maintenance programme.

Note1: Mandatory requirements identified as part of the type design approval are often referred to as certification maintenance requirements and/or airworthiness limitations.

Note 2: For RPAs, the development of initial maintenance programme information at the time of RPA type certification can take advantage of the Maintenance Review Board process or the process of developing instructions for continuing airworthiness.

5.5.1.3 PERSONS AUTHORISED TO PERFORM MAINTENANCE, OVERHAUL, MODIFICATIONS, REPAIRS, AND INSPECTIONS

(a) No person or organisation may perform on an aircraft or aeronautical product any task defined as maintenance except as provided in the following:

(1) A pilot licensed by the Authority may perform preventive maintenance on any aircraft owned by that pilot so long as the aircraft is not listed for use by an AOC holder. (IS 5.1.1.2(B)(d)

(i) For any privately operated non-complex motor-powered aircraft of 2730 kg MTOM and below, the Pilot-owner may issue a certificate of release to service after limited pilot-owner maintenance as specified in IS 5.1.1.2(B)(d).

(ii) The Pilot-owner is always responsible for any maintenance that he performs.

(iii) Before carrying out any Pilot-owner maintenance tasks, the Pilot-owner must satisfy himself that he is competent to do the task. It is the responsibility of Pilot-owners to familiarize themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.

(iv) The Pilot-owner is responsible for identifying the Pilot-owner tasks according to these basic principles in the maintenance programme and for ensuring that the document is updated in a timely manner.

(v) The Pilot-owner may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

(2) A person working under the supervision of a licensed AMT may perform the maintenance, overhaul, modifications, repairs, and inspections that the supervisory AMT is authorised to perform:

(i) If the supervisor personally observes the work being done to the extent necessary to ensure that it is being done properly; and

(ii) If the supervisor is readily available, in person, for consultation.

(3) A licensed AMT may perform or supervise the maintenance or modification of an aircraft or aeronautical product for which that licensed AMT is rated subject to the limitations of Part 2 of these regulations.

(4) An AMO may perform aircraft maintenance, overhaul, modifications, repairs, and inspections within the limits specified by the Authority.

(5) The AOC holder may perform aircraft maintenance, overhaul, modifications, repairs, and inspections, as specified by the Authority.

(6) A manufacturer holding an AMO certificate may:

(i) Overhaul or modify any aeronautical product manufactured by that manufacturer under a type or production certificate;

(iii) Overhaul or modify any aeronautical product manufactured by that manufacturer under a TSO authorisation, a parts manufacturer approval issued by the State of Design, or a product and process specification issued by the State of Design; and

(iv) Perform any inspection required by Part 8 of these regulations on aircraft it manufactures while currently operating under a production certificate or a currently approved production inspection system for such aircraft.

5.5.1.4 AUTHORISED PERSONNEL TO APPROVE FOR RETURN TO SERVICE

(a) No person or entity, other than the Authority, may approve an aircraft or aeronautical product for return to service after it has undergone maintenance, overhaul, modifications, repairs, or inspections, except as provided in the following:

(1) A pilot licensed by the Authority may return that pilot's aircraft to service after performing authorised preventive maintenance.

(2) A licensed AMT may approve aircraft and aeronautical products for return to service after that licensed AMT has performed, supervised, or inspected its maintenance subject to the limitation of Part 2, section 2.4.4 of these regulations.

(3) An AMO may approve aircraft and aeronautical products for return to service as provided in the operations specifications approved by the Authority.

(4) An AOC holder may approve aircraft and aeronautical products for return to service as specified by the Authority.

5.5.1.5 PERSONS AUTHORISED TO PERFORM INSPECTIONS

(a) No person or organisation, other than the Authority, may perform the inspections required by 8.2.1.7 of these regulations prior to or after an aircraft or aeronautical product has undergone maintenance, overhaul, modifications, repairs, or inspections, except as provided in the following:

(1) An AMT may conduct the required inspections of aircraft and aeronautical products for which that AMT is rated and current.

(2) An AMO may perform the required inspections of aircraft and aeronautical products in accordance with the operations specifications approved by the Authority.

(3) An AOC holder may perform the required inspections of aircraft and aeronautical products in accordance with operations specifications approved by the Authority.

5.5.1.6 PERFORMANCE RULES: MAINTENANCE

(a) Each person performing maintenance, overhaul, modifications, repairs, or inspections on an aircraft or aeronautical product shall use the methods, techniques, and practices prescribed in:

(1) The current manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness prepared by the manufacturer; and

(2) Additional methods, techniques, and practices required by the Authority or methods, techniques, and practices designated by the Authority where the manufacturer's documentation was not available.

(b) Each person shall use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with accepted industry practices. If the manufacturer involved recommends special equipment or test apparatus, the person performing maintenance shall use that equipment or apparatus, or its equivalent, that is acceptable to the Authority.

(c) Each person performing maintenance, overhaul, modifications, repairs, or inspections on an aircraft or aeronautical product shall do that work in such a manner, and shall use materials of such a quality, that the condition of that aeronautical product shall be at least equal to its original or properly modified condition with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness.

(d) The methods, techniques, and practices contained in an air operator's Maintenance Control Manual and continuing airworthiness maintenance programme, as approved by the Authority, shall constitute an acceptable means of compliance with the requirements of this subsection.

(e) Aircraft parts and materials:

(1) All aeronautical parts and materials being installed or used on Curaçao registered aircraft must be traceable and must be supplied with documentation to attest to the fact.

(2) All rotable parts must be supplied with an original or certified copy of an Authorised Release Certificate that complies with the requirements of the CCAA, FAA, Transport Canada, EASA (European Aviation Safety Agency), or equivalent Aviation Safety Agency.

(3) All expendable parts must be supplied with either an Authorised Release Certificate as in (e)(2) or a signed Certificate of Conformity that carries an appropriate statement that the part complies with airworthiness requirements. Packing Slips that incorporate signed conformance certification are also acceptable.

(4) Segments of bulk parts covered under a single certification document may be supplied with a copy of the document along with the necessary certification stating the location where the original documentation is being held on file.

(5) Uncertified photocopies of documentation are NOT acceptable.

(6) Whenever a part or item of material is installed on an aircraft, the documentation specified in (e)(1) through (e)(4) above, as applicable, must be included in the aircraft records along with the worksheet, job card, or logbook page that carries the entry for the work performed.

5.5.1.7 PERFORMANCE RULES: INSPECTIONS

(a) GENERAL. Each person performing an inspection required by the Authority shall perform the inspection so as to determine whether the aircraft, or portion(s) thereof under inspection, meets all applicable airworthiness requirements.

(b) ROTORCRAFT. Each person performing an inspection required on a rotorcraft shall inspect the following systems in accordance with the manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness of the manufacturer concerned:

(1) The drive shafts or similar systems;

(2) The main rotor transmission gear box for obvious defects;

(3) The main rotor and centre section (or the equivalent area); and

(4) The auxiliary rotor on helicopters.

(c) ANNUAL AND 100-HOUR INSPECTIONS.

(1) Each person performing an annual or 100-hour inspection shall use a checklist while performing the inspection. The checklist may be of the person's own design, one provided by the manufacturer of the equipment being inspected, or one obtained from another source. The checklist shall include the scope and detail of the items prescribed by the Authority. The components that shall be included in an annual or 100-hour inspection are prescribed in IS 5.5.1.7.

(2) Each person approving a reciprocating-engine aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations of:

(i) Power output (static and idle rpm);

(ii) Magnetos;

(iii) Fuel and oil pressure; and

(iv) Cylinder and oil temperature.

(3) Each person approving a turbine-engine aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations.

(d) PROGRESSIVE INSPECTIONS.

(1) Each person performing a progressive inspection shall, at the start of a progressive inspection system, inspect the aircraft completely. After this initial inspection, routine and detailed inspections shall be conducted as prescribed in the progressive inspection schedule. Routine inspections consist of a visual examination or check of the aircraft and aeronautical products, insofar as practicable without disassembly. Detailed inspections consist of a thorough examination of the aircraft and aeronautical products, with such disassembly as is necessary. For the purposes of this paragraph, the overhaul of an aeronautical product is considered to be a detailed inspection.

(2) If the aircraft is away from the station where inspections are normally conducted, an appropriately rated AMT or AMO or the manufacturer of the aircraft may perform inspections in accordance with the procedures and using the forms of the person who would otherwise perform the inspection.

(e) CONTINUING AIRWORTHINESS MAINTENANCE PROGRAMME INSPECTIONS.

(1) Each person performing the inspection programme required for an AOC holder’s aircraft or an aircraft maintained under a continuing airworthiness maintenance programme shall perform the inspection in accordance with the instructions and procedures set forth in the inspection programme.

(f) DUPLICATE INSPECTIONS:

(1) No person shall operate an aircraft except as provided in the following:

(i) Whenever any system which can affect the attitude, flight path, or propulsive force of that aircraft is disturbed, or a defect in operation of the system is reported, a Duplicate Inspection is carried out on the system before the aircraft is returned to service.

(ii) Whenever any major repair, or major modification, is performed on any part of the structure of that aircraft, the failure of which may result in the aircraft’s inability to continue in safe flight, a Duplicate Inspection is performed on the repair or modification.

(2) A Duplicate Inspection shall be performed and certified, by two AMTs, independently, both

of whom shall be either type or class rated on the aircraft.

(3) The Inspection shall consist of a visual inspection and a functional check, to confirm the integrity, security, freedom from interference, and correct functioning of all parts of the system, from the pilot's control input to the operating surface or component. Where a repair or modification is being inspected, the inspection shall confirm compliance of the repair or modification with all aspects of the approved data.

(4) The Inspection shall be carried out first by one AMT and then subsequently by the second AMT. The system being inspected shall not be disturbed during the time lapse between the first and second inspections, and any such time lapse shall be kept to a minimum.

(5) At least one of the Inspectors performing the Duplicate Inspection shall not have been involved in the performance of the work being inspected.

(6) An Inspector assigned to the Quality section of a maintenance organization may perform the second part of a Duplicate Inspection.

(7) Each air operator shall develop a list of the systems on its aircraft that will require Duplicate Inspection and shall include this list in its Maintenance Control Manual. This list shall at a minimum include the following systems:

(a) Aileron and aileron trim.

(b) Elevator and elevator trim.

(c) Rudder and rudder trim.

(d) Horizontal stabilizer.

(e) Flaps. (trailing and leading edge)

(f) Slats.

(g) Speed brakes / Spoilers.

(h) Engine power lever (Throttle).

(i) Engine fuel shut-off (HP Cock).

(j) Propeller lever

(k) Engine fuel Mixture.

(l) Engine thrust reverser.

(m) Landing Gear extension and retraction.

5.5.1.8 PERFORMANCE RULES: AIRWORTHINESS LIMITATIONS

(a) Each person performing an inspection or other maintenance specified in an airworthiness limitations section of a current manufacturer's Aircraft Maintenance Manual or in instructions for continuing airworthiness shall perform the inspection or other maintenance in accordance with that section or in accordance with specifications approved by the Authority.

(b) Other Inspections. No person may operate an aircraft unless the following required inspections have been accomplished within the previous:

(1) 24 calendar months, for altimeter and pitot-static system;

(2) 12 calendar months for the transponder check for transponder equipped aircraft;

(3) 12 calendar months for the ELT check for ELT equipped aircraft;

(4) 30 days for the VOR receiver check for aircraft to be used in IFR operations,

(5) 12 calendar months for the magnetic compass calibration.

5.5.1.9 AIRCRAFT MASS AND BALANCE

(a) General

(1) Except as specified in (2) of this paragraph, the mass of each aircraft shall be determined prior to the initial issue of the Certificate of Airworthiness.

(2) Determination of the mass of an aircraft prior to the initial issue of a Certificate of Airworthiness may not be required in the case of:

(i) An aircraft in respect of which the mass has been determined prior to importation and in respect of which any subsequent changes in mass have been duly computed and recorded;

(ii) A newly manufactured aircraft having a maximum TOM not exceeding 5700 Kg., the empty mass of which has been established in accordance with information and computation supplied by the manufacturers thereof;

(iii) If the basic mass is estimated to have changed by not more than 0.5 % of the MTOM, and if the centre of gravity is estimated to have changed by not more than 0.5 % of the MAC.

(b) Periodic Determination of Mass

Unless otherwise approved by the Authority further determination of mass shall be done subsequent to the initial determination or mass determination arrived at in accordance with the above and at the intervals specified in the following;

(1) Every 5 years.

5.6 CONTINUING AIRWORTHINESS RECORDS

5.6.1.1 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR MAINTENANCE, MODIFICATIONS, AND REPAIRS OF AIRCRAFT AND LIFE-LIMITED PARTS

(a) Each person who maintains, modifies, or repairs an aircraft or life-limited parts shall, when the work is performed satisfactorily, make an entry in the continuing airworthiness record of that equipment as follows:

(1) A description (or reference to data acceptable to the Authority) of work performed, including:

(i) Total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts;

(ii) Current status of compliance with all mandatory continuing airworthiness information;

(iii) Appropriate details of modifications and repairs;

(iv) Time in service (hours, calendar time, and cycles, as appropriate) since the last overhaul of the aircraft or its components subject to a mandatory overhaul life;

(v) Current status of the aircraft's compliance with the maintenance programme; and

(vi) Specific details to show that all requirements for the signing of an approval for return to service have been met.

(2) The completion date of the work performed.

(3) The name, signature, licence number, and type of licence held by the person approving the work.

Note: The signature constitutes the approval for return to service only for the work performed.

(b) In addition to the entry required by paragraph 5.6.1.1(a) of this subsection, each person performing a major repair or major modification shall record such work on a form and in the manner prescribed in IS 5.6.1.1(B).

5.6.1.2 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR MAINTENANCE, OVERHAUL, MODIFICATIONS, AND REPAIRS OF AN AERONAUTICAL PRODUCT

(a) No person shall approve for return to service any aeronautical product that has undergone maintenance, overhaul, modifications, or repairs unless:

(1) The appropriate continuing airworthiness record entry has been made; and

(2) The Major Repair or Modification form authorised or furnished by the Authority has been executed in a manner prescribed by the Authority.

(b) If a major repair or modification results in any change in the aircraft operating limitations or flight data contained in the approved Aircraft Flight Manual, those operating limitations or that flight data is appropriately revised and set forth as prescribed.

(c) No person shall describe, in any required maintenance entry or on any form, an aeronautical product as being overhauled unless that aeronautical product has been:

(1) Disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled using methods, techniques, and practices acceptable to the Authority; and

(2) Tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, that have been developed and documented by the holder of the TC, the STC, or a material, part, process, or appliance manufacturing approval by the Authority.

(d) No person shall describe in any required maintenance entry or form an aircraft or other aeronautical product as being rebuilt unless it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits.

(a) If the maintenance, overhaul, modification, or repair of an aeronautical product is performed by an AMO, the AMO shall complete an airworthiness approval tag, as prescribed in Part 6 of these regulations.

5.6.1.3 CONTENT, FORM, AND DISPOSITION OF RECORDS OF INSPECTIONS FOR RETURN TO SERVICE

(a) INSPECTION RECORD ENTRIES. The person approving or disapproving for return to service an aircraft or aeronautical product after any inspection performed in accordance with Part 8 of these regulations shall make an entry in the continuing airworthiness record of that equipment containing the following information:

(1) The type of inspection and a brief description of the extent of the inspection;

(2) The date of the inspection and aircraft or aeronautical product total places time in service;

(3) The signature, licence number, and type of licence held by the person approving or disapproving for return to service the aircraft or aeronautical product;

(4) If the aircraft or aeronautical product is found to be airworthy and approved for return to service, the following or a similarly worded statement: “I certify that this aircraft or aeronautical product has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”;

(5) If the aircraft or aeronautical product is not approved for return to service because of needed maintenance or non-compliance with the applicable specifications, ADs, or other approved data, the following or a similarly worded statement: “I certify that this aircraft or aeronautical product has been inspected in accordance with (insert type) inspection and a list of discrepancies and unairworthy items dated (insert date) has been provided for the aircraft owner or operator”; and

(6) If an inspection is conducted under an inspection programme provided for in Part 8 of these regulations, an entry identifying the inspection programme and that part of the inspection programme accomplished and containing a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme.

(b) LISTING OF DISCREPANCIES. If the person performing any inspection required by Part 8 of these regulations finds that the aircraft is not airworthy or does not meet the applicable type certificate data, ADs, or other approved data upon which its airworthiness depends, that person shall give the owner or operator of the aircraft a signed and dated list of those discrepancies.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 5 – IMPLEMENTING STANDARDS

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PART 5 – IMPLEMENTING STANDARDS

IS 5.1.1.2(B) DEFINITIONS

(a) Major Modifications

(1) AIRFRAME MAJOR MODIFICATIONS. Major airframe modifications include modifications to the following aircraft parts, or modifications of the following types, when not included in the applicable manufacturer specifications or type certificate data sheet:

(i) Wings

(ii) Tail surfaces

(iii) Fuselage

(iv) Engine mounts

(v) Control system

(vi) Landing gear

(vii) Hull or floats

(viii) Elements of an airframe, including spars, ribs, fittings, shock absorbers, bracing, cowlings, fairings, and balance weights

(ix) Hydraulic and electrical actuating system of components

(x) Rotor blades

(xi) Changes to the empty mass or empty balance that would result in an increase in the maximum certificated take-off mass or centre of gravity limits of the aircraft

(xii) Changes to the basic design of the fuel, oil, cooling, heating, cabin pressurisation, electrical, hydraulic, de-icing, or exhaust systems

(xiii) Changes to the wing, or to fixed or movable control surfaces, that would affect flutter and vibration characteristics

(2) POWERPLANT MAJOR MODIFICATIONS. Major powerplant modifications, even when not listed in the applicable engine specifications, include:

(i) Conversion of an aircraft engine from one approved model to another, involving any changes in compression ratio, propeller reduction gear, impeller gear ratios, or the substitution of major engine parts that requires extensive rework and testing of the engine

(ii) Changes to the engine by replacing aircraft engine structural parts with parts not supplied by the original manufacturer or parts not specifically approved by the Authority

(iii) Installing an accessory that is not approved for the engine

(iv) Removing accessories that are listed as required equipment on the aircraft or engine specification

(v) Installing structural parts other than the type of parts approved for the installation

(vi) Conversions of any sort for the purpose of using fuel of a rating or grade other than that listed in the engine specifications.

(3) PROPELLER MAJOR MODIFICATIONS. Major propeller modifications, when not authorised in the applicable propeller specifications, include:

(i) Changing the blade design

(ii) Changing the hub design

(iii) Changing the governor or control design

(iv) Installing a propeller governor or feathering system

(v) Installing a propeller de-icing system

(vi) Installing parts not approved for the propeller

(4) APPLIANCE MAJOR MODIFICATIONS. Major appliance modifications are modifications of the basic design not made in accordance with the recommendations of the appliance manufacturer or in accordance with applicable ADs. In addition, major appliance modifications include changes in the basic design of radio communication and navigation equipment approved under type certification or other authorisation that have an effect on frequency stability, noise level, sensitivity, selectivity, distortion, spurious radiation, automatic volume control characteristics, or the ability to meet environmental test conditions and other changes that have an effect on the performance of the equipment.

(b) Major Repairs

(1) AIRFRAME MAJOR REPAIRS. Major airframe repairs include repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members, or their replacement, when replacement is by fabrication such as riveting or welding:

(i) Box beams

(ii) Monocoque or semi-monocoque wings or control surfaces

(iii) Wing stringers or chord members

(iv) Spars

(v) Spar flanges

(vi) Members of truss-type beams

(vii) Thin sheet webs of beams

(viii) Keel and chine members of boat hulls or floats

(ix) Corrugated sheet compression members that act as flange material of wings or tail surfaces

(x) Wing main ribs and compression members

(xi) Wing or tail surface brace struts

(xii) Engine mounts

(xiii) Fuselage longerons

(xiv) Members of the side truss, horizontal truss, or bulkheads

(xv) Main seat support braces and brackets

(xvi) Landing gear brace struts

(xvii) Axles

(xviii) Wheels

(xix) Parts of the control system such as control columns, pedals, shafts, brackets, or horns

(xx) Repairs involving the substitution of material

(xxi) Repairs to damaged areas in a metal- or plywood-stressed covering exceeding 15 cm in any direction

(xxii) Repairs to portions of skin sheets by making additional seams

(xxiii) Splicing of skin sheets

(xxiv) Repairs to three or more adjacent wing or control surface ribs or to the leading edge of wings and control surfaces between such adjacent ribs

(xxv) Repairs to fabric covering involving an area greater than that required to repair two adjacent ribs

(xxvi) Replacement of fabric on fabric-covered parts such as wings, fuselages, stabilisers, and control surfaces

(xxvii) Repairs, including rebottoming, to removable or integral fuel tanks and oil tanks

(2) POWERPLANT MAJOR REPAIRS. Major powerplant repairs include the following:

(i) Separation of or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with an integral supercharger

(ii) Separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with other than spur-type propeller reduction gearing

(iii) Special repairs to structural engine parts by welding, plating, metallising, or other methods

(3) PROPELLER MAJOR REPAIRS. Major propeller repairs include the following:

(i) Repairing or straightening steel blades

(ii) Repairing or machining steel hubs

(iii) Shortening blades

(iv) Retipping wood propellers

(v) Replacing outer laminations on fixed-pitch wood propellers

(vi) Repairing elongated bolt holes in the hub of fixed-pitch wood propellers

(vii) Inlay work on wood blades

(viii) Repairing composition blades

(ix) Replacing tip fabric

(x) Replacing plastic covering

(xi) Repairing propeller governors

(xii) Overhauling controllable pitch propellers

(xiii) Repairing deep dents, cuts, scars, nicks, etc., and straightening aluminum blades

(xiv) Repairing or replacing internal elements of blades

(4) APPLIANCE MAJOR REPAIRS. Major appliance repairs include the following:

(i) Calibrating and repairing instruments

(ii) Calibrating avionics or computer equipment

(iii) Rewinding the field coil of an electrical accessory

(iv) Completely disassembling complex hydraulic power valves

(v) Overhauling pressure-type carburetors and pressure-type fuel, oil, and hydraulic pumps

(c) Preventive maintenance

(1) Preventive maintenance is limited to the following work, provided it does not involve complex assembly operations:

(i) Removing, installing, and repairing landing gear tires

(ii) Replacing elastic shock absorber cords on landing gear

(iii) Servicing landing gear shock struts by adding oil, air, or both

(iv) Servicing landing gear wheel bearings (e.g., cleaning and greasing)

(v) Replacing defective safety wiring or cotter keys

(vi) Lubrication not requiring disassembly other than removal of nonstructural items such as cover plates, cowlings, and fairings

(vii) Making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces

(viii) Replenishing hydraulic fluid in the hydraulic reservoir

(ix) Refinishing the decorative coating of the fuselage, wings, tail group surfaces (excluding balanced control surfaces), fairings, cowlings, landing gear, or cabin or flight deck interior, when the removal or disassembly of any primary structure or operating system is not required

(x) Applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices

(xi) Repairing the upholstery and decorative furnishings of the cabin or flight deck, when the repair does not require disassembly of any primary structure or operating system and does not interfere with an operating system or affect any primary structure of the aircraft

(xii) Making small, simple repairs to fairings, nonstructural cover plates, and cowlings and small patches and reinforcements not changing the contour in such a way as to interfere with proper airflow

(xiii) Replacing side windows where that work does not interfere with the structure of any operating system, such as controls, electrical equipment, etc.

(xiv) Replacing safety belts

(xv) Replacing seats or seat parts with replacement parts approved for the aircraft, not involving the disassembly of any primary structure or operating system

(xvi) Troubleshooting and repairing broken circuits in landing light wiring circuits

(xvii) Replacing bulbs, reflectors, and lenses of position and landing lights

(xviii) Replacing wheels and skis where no mass and balance computation is involved

(xix) Replacing any cowling not requiring removal of the propeller or disconnection of flight controls

(xx) Replacing or cleaning spark plugs and setting spark plug gap clearance

(xxi) Replacing any hose connections except hydraulic connections

(xxii) Replacing prefabricated fuel lines

(xxiii) Cleaning fuel and oil strainers

(xxiv) Replacing and servicing batteries

(xxv) Replacing or adjusting nonstructural fasteners incidental to operations

(xxvi) Installing anti-misfuelling devices to reduce the diameter of fuel tank filler openings, provided the aircraft manufacturer has made the specific device a part of the aircraft TC data, the manufacturer has provided appropriately approved instructions acceptable to the Authority for the installation of the specific device, and installation does not involve the disassembly of the existing filler opening.

(d) Maintenance tasks shall not be carried out by the Pilot-owner when the task:

(1) is critically safety related, whose incorrect performance will drastically affect the airworthiness of the aircraft or is a flight safety sensitive maintenance task as specified in Subpart 5.5.1.7 and/or;

(2) requires the removal of major components or major assembly and/or;

(3) is carried out in compliance with an Airworthiness Directive or an Airworthiness Limitation Item, unless specifically allowed in the AD or the ALI and/or;

(4) requires the use of special tools, calibrated tools (except torque wrench and crimping tool) and/or;

(5) requires the use of test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or;

(6) is composed of any unscheduled special inspections (e.g. heavy landing check) and/or;

(7) is effecting systems essential for the IFR operations and/or;

(8) is listed in IS 5.1.1.2(B)(a)(b) or is a component maintenance task.

Note1: The criteria 1 to 8 listed above can not be overridden by less restrictive instructions issued in accordance with the Maintenance Programme".

Note2: Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered a Pilot-owner maintenance task and therefore does not require a Certificate of Release to Service

IS 5.3.1.5 ISSUANCE OF A STANDARD CERTIFICATE OF AIRWORTHINESS

(a) The standard certificate of airworthiness issued by the Authority will be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority**	**No. :** This certificate shall be carried in the aircraft at all times.
CERTIFICATE OF AIRWORTHINESS		
1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number
4. Categories and/or operation		
5. This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944, Article 5, Paragraph 1 of the Civil Aviation Act of Curaçao and regulations issued thereunder in respect of the above-mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations. Date of issue Signature _____ Director General Curaçao Civil Aviation Authority		
6. Date of expiry		

(b) The standard certificate of airworthiness issued by the Authority for RPA will be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority**	**No:**
	CERTIFICATE OF AIRWORTHINESS – RPA	
1. Nationality and registration marks:	2. Manufacturer and manufacturer's designation of RPA:	3. RPA serial number:
4. RPS type(s) and/or model(s):		5. Link(s) for RPA (C2 Link(s)):
6. Categories of aircraft/operation:		
7. This certificate of airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944 and to [APPROPRIATE AIRWORTHINESS CODE] with respect to the above-mentioned RPA, which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations.		
Date of issue: _____	[Signature]: _____	
8.		

IS 5.3.1.6 ISSUANCE OF A SPECIAL CERTIFICATE OF AIRWORTHINESS

(a) The special certificate of airworthiness issued by the Authority will be as follows:

<table>
<tr><td rowspan="3">  </td><td colspan="2">CURACAO</td></tr>
<tr><td colspan="2">Curacao Civil Aviation Authority</td></tr>
<tr><td colspan="2">SPECIAL CERTIFICATE OF AIRWORTHINESS</td></tr>
<tr><td colspan="3">Category/designation:</td></tr>
<tr><td colspan="3">Purpose:</td></tr>
<tr><td rowspan="2">Manufacturer:</td><td colspan="2">Name:</td></tr>
<tr><td colspan="2">Address:</td></tr>
<tr><td rowspan="2">Flight:</td><td colspan="2">From:</td></tr>
<tr><td colspan="2">To:</td></tr>
<tr><td>Registration number:</td><td colspan="2">Serial number:</td></tr>
<tr><td>Builder:</td><td colspan="2">Model:</td></tr>
<tr><td>Date of issuance:</td><td colspan="2">Date of expiry:</td></tr>
<tr><td colspan="3">Operating limitations dated [dd/mm/yyyy] are part of this certificate</td></tr>
<tr><td>Signature of CAA representative:</td><td colspan="2">Designation or office number:</td></tr>
<tr><td colspan="3">Any alteration, reproduction, or misuse of this certificate may be punishable as specified in Part 1 of the aviation regulations. This certificate shall be displayed in the aircraft in accordance with Part 8 of the aviation regulations.</td></tr>
<tr><td>CAA form number:</td><td colspan="2">See Reverse Side</td></tr>
<tr><td colspan="3">Front of form</td></tr>
</table>

This special certificate of airworthiness is issued under the authority of the Civil Aviation Safety Act (the Act), as amended, and Part 5 of the aviation regulations.
This special certificate of airworthiness authorises the manufacturer named on the reverse side to conduct production flight tests, and only production flight tests, of aircraft registered in its name. No person may conduct production flight tests: (1) carrying persons or property for remuneration or hire, and/or (2) carrying persons not essential for the purpose of the flight.
This special certificate of airworthiness authorises the flight specified on the reverse side for the sole purpose shown in the purpose block.
This special certificate of airworthiness certifies that as of the date of issuance, the aircraft to which it is issued has been inspected and found to meet the applicable aviation regulations. The aircraft does not meet the requirements of the applicable and comprehensive detailed airworthiness code as provided by Annex 8 of the Convention on International Civil Aviation. No person may operate the aircraft described on the reverse side (1) except in accordance with the applicable aviation regulations and in accordance with terms, conditions, and limitations that may be prescribed by the Authority as part of this certificate or (2) over any foreign country without the permission of that country.
Unless sooner surrendered, suspended, or revoked, this special certificate of airworthiness is effective for the duration and under the conditions prescribed in the regulatory requirements.
Back of form

CAA form dated 11/2019

FAA Order 8130.2J

IS 5.5.1.7 PERFORMANCE RULES: INSPECTIONS

(a) Each person performing an annual or 100-hour inspection shall, before that inspection, thoroughly clean the aircraft and aircraft engine and remove or open all necessary inspection plates, access doors, fairings, and cowlings.

(b) Each person performing an annual or 100-hour inspection shall inspect, where applicable, the following components:

(1) Fuselage and hull group:

(i) Fabric and skin – for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings

(ii) Systems and components – for improper installation, apparent defects, and unsatisfactory operation

(2) Cabin and flight deck group:

(i) Generally – for uncleanness and loose equipment that might foul the controls

(ii) Seats and safety belts – for poor condition and apparent defects

(iii) Windows and windshields – for deterioration and breakage

(iv) Instruments – for poor condition, mounting, marking, and (where practicable) for improper operation

(v) Flight and engine controls – for improper installation and improper operation

(vi) Batteries – for improper installation and improper charge

(vii) All systems – for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment

(3) Engine and nacelle group:

(i) Engine section – for visual evidence of excessive oil, fuel, or hydraulic leaks, and for the sources of such leaks

(ii) Studs and nuts – for improper torqueing and obvious defects

(iii) Internal engine – for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs; if there is weak cylinder compression, for improper internal condition and improper internal tolerances

(iv) Engine mount – for cracks, looseness of mounting, and looseness of engine to mount

(v) Flexible vibration dampeners – for poor condition and deterioration

(vi) Engine controls – for defects, improper travel, and improper safetying

(vii) Lines, hoses, and clamps – for leaks, improper condition, and looseness

(viii) Exhaust stacks – for cracks, defects, and improper attachment

(ix) Accessories – for apparent defects in security of mounting

(x) All systems – for improper installation, poor general condition, defects, and insecure attachment

(xi) Cowling – for cracks and defects

(4) Landing gear group:

(i) All units – for poor condition and insecurity of attachment

(ii) Shock absorbing devices – for improper oleo fluid level

(iii) Linkage, trusses, and members – for undue or excessive wear, fatigue, and distortion

(iv) Retracting and locking mechanism – for improper operation

(v) Hydraulic lines – for leakage

(vi) Electrical system – for chafing and improper operation of switches

(vii) Wheels – for cracks, defects, and condition of bearings

(viii) Tires – for wear and cuts

(ix) Brakes – for improper adjustment

(x) Floats and skis – for insecure attachment and obvious or apparent defects

(5) Wing and centre section assembly for:

(i) Poor general condition

(ii) Fabric or skin deterioration

(iii) Distortion

(iv) Evidence of failure

(v) Insecurity of attachment

(6) Complete empennage assembly for:

(i) Poor general condition

(ii) Fabric or skin deterioration

(iii) Distortion

(iv) Evidence of failure

(v) Insecure attachment

(vi) Improper component installation

(vii) Improper component operation

(7) Propeller group:

(i) Propeller assembly – for cracks, nicks, binds, and oil leakage

(ii) Bolts – for improper torqueing and lack of safety

(iii) Anti-icing devices – for improper operations and obvious defects

(iv) Control mechanisms – for improper operation, insecure mounting, and restricted travel

(8) Avionics/instruments group:

(i) Avionics/instrument equipment – for improper installation and insecure mounting

(ii) Wiring and conduits – for improper routing, insecure mounting, and obvious defects

(iii) Bonding and shielding – for improper installation and poor condition

(iv) Antenna, including trailing antenna – for poor condition, insecure mounting, and improper operation

(9) Electronic/electrical group:

(i) Wiring and conduits – for improper routing, insecure mounting, and obvious defects

(ii) Bonding and shielding – for improper installation and poor condition

(10) Each installed miscellaneous item that is not otherwise covered by this listing and/or has instructions for continuing airworthiness – for improper installation and improper operation

IS 5.6.1.1(B) RECORDING OF MAJOR REPAIRS AND MODIFICATIONS

(a) Each person performing a major repair or major modification shall:

(1) Execute the appropriate form prescribed by the Authority at least in duplicate;

(2) Give a signed copy of that form to the aircraft owner/operator; and

(3) Forward a copy of that form to the Authority, in accordance with Authority instructions, within 48 hours after the aeronautical product is approved for return to service.

Note: Some States have an electronic system for recording major repairs and modifications. This IS is written presuming the State will use a hard copy form in duplicate. If an electronic system is used, the items here are recommended for inclusion in the system.

(b) For major repairs made in accordance with a manual or specifications acceptable to the Authority, an AMO may, in place of the requirements of IS 5.6.1.1(B)(a):

(1) Use the customer's work order upon which the repair is recorded;

(2) Give the aircraft owner a signed copy of the work order and retain a duplicate copy for at least 1 year from the date of approval for return to service of the aeronautical product;

(3) Give the aircraft owner an approval for return to service signed by an authorised representative of the AMO and incorporate the following information:

(i) The identity of the aeronautical product;

(ii) If an aircraft, the make, model, serial number, nationality and registration marks, and location of the repaired area;

(iii) If an aeronautical product, the manufacturer's name, the name of the part, the model, and the serial numbers (if any); and

(4) Include the following or a similarly worded statement:

The aircraft or aeronautical product identified above was repaired, overhauled, and inspected in accordance with currently effective, applicable instructions of the State of Design and in accordance with the regulatory requirements of the Authority and is approved for return to service.

Pertinent details of the repair are on file at this maintenance organisation.

Order no.: _____ Date: _____

Signed: _____

(Signature of authorised representative)

_____ _____

(Facility name) *(AMO certificate number)*

(Address)

(c) The following sample form may be used to record major repairs and major modifications:

MAJOR REPAIR AND MODIFICATION OF AN AERONAUTICAL PRODUCT	Curaçao
	For CAA Use Only
	Office Identification

INSTRUCTIONS: Print or type all entries. See paragraph 5.6.1.1(b) and IS 5.6.1.1(B) of the regulatory requirements for instructions and disposition of this form.

1. Aircraft	Make:	Model:
	Serial number:	Nationality and registration marks:
2. Owner	Name (as shown on certificate of aircraft registration):	Address (as shown on certificate of aircraft registration):

3. For Authority Use Only

4. Unit Identification				**5. Type**	
Unit	Make	Model	Serial Number	Repair	Modification
Airframe	(as described in item 1 above)				
Powerplant					
Propeller					
Appliance	Type:				
	Manufacturer:				

6. Conformity Statement

A. Organisation Name and Address	B. Type of Licence/Organisation	C. Certificate/Licence Number
	☐ Licensed (AMT) ☐ A ☐ P or ☐ A/P	(For an AMO, include the appropriate ratings issued for the major repair or modification)
	☐ AMO	

D. I certify that the repair and/or modification made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with Part 5 of the aviation regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date:	Signature of authorised individual:

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit(s) identified in item 4 were inspected in the manner prescribed by the Director of Civil Aviation and are ☐ APPROVED ☐ REJECTED

BY				
	☐ CAA inspector	☐ Inspection authorisation		Other (specify):
	☐ Maintenance organisation	☐ Other		

Date of approval or rejection:	Certificate or designation number:	Signature of authorised individual:

NOTICE

Mass and balance or operating limitation changes shall be entered in the appropriate aircraft record. A modification shall be compatible with all previous modifications to assure continuing conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify each page with the aircraft nationality and registration marks and the date the work was completed.)

Instructions for Completion of Major Repair and Modification of an Aeronautical Product Form

Item 1 – Aircraft. The information to complete the make, model, and serial number blocks will be found on the aircraft manufacturer's identification plate. The nationality and registration mark is the same as shown on the certificate of aircraft registration.

Item 2 – Owner. Enter the aircraft owner's complete name and address as shown on the certificate of aircraft registration.

Note: When a major repair or modification is made to a spare part or an appliance, items 1 and 2 will be left blank, and the original and duplicate copies of the form will remain with the part until such time as it is installed on an aircraft. The person installing the part will then enter the required information in blocks 1 and 2, give the original of the form to the aircraft owner/operator, and forward the duplicate copy to the Authority within 48 hours after the work is inspected.

Item 3 – For Authority Use Only. Approval may be indicated in item 3 when the Authority determines that data to be used in performing a major modification or a major repair complies with accepted industry practices and all applicable aviation regulations. Approval is indicated by one of the following methods:

1. Approval by examination of data only – one aircraft only: "The data identified herein complies with the applicable airworthiness requirements and is approved for the above-described aircraft, subject to conformity inspection by a person authorised in 5.5.1.5 of the aviation regulations."
2. Approval by physical inspection, demonstration, testing, etc., of the data and aircraft – one aircraft only: "The modification or repair identified herein complies with the applicable airworthiness requirements and is approved for the above-described aircraft, subject to conformity inspection by a person authorised in 5.5.1.5 of the aviation regulations."
3. Approval by examination of data only – duplication on identical aircraft: "The modification identified herein complies with the applicable airworthiness requirements and is approved for duplication on identical aircraft make, model, and modified configuration by the original modifier."
4. A signature in item 3 indicates approval of the data described in that section for use in accomplishing the work described under item 8, "Description of the Work Accomplished." This signature does not indicate CAA approval of the work described under item 8 for return to service.

Item 4 – Unit Identification. The blocks under item 4 are used to identify the airframe, powerplant, propeller, or appliance repaired or modified. It is only necessary to complete the blocks for the unit repaired or modified.

Item 5 – Type. Enter a check mark in the appropriate column to indicate if the unit was repaired or modified.

Item 6 – Conformity Statement:

1. A – Organisation Name and Address. Enter the name of the AMT or AMO accomplishing the repair or modification. AMTs shall enter their name and permanent mailing address. AMOs shall enter the name and address under which they do business.
2. B – Type of Licence/Organisation. Check the appropriate box to indicate the type of licence or the organisation that performed the work.
3. C – Certificate/Licence Number. AMTs shall enter their AMT licence number in this block. AMOs shall enter their AMO certificate number and the rating or ratings under which the work was performed. Manufacturers shall enter their type production or STC number. Manufacturers of TSO appliances modifying these appliances shall enter the TSO number of the appliance modified.
4. D – Compliance Statement. This space is used to certify that the repair or modification was made in accordance with Part 5 of the aviation regulations. When work was performed or supervised by a licensed AMT not employed by an AMO, the AMT shall enter the date that the repair or modification was completed and shall sign the AMTs full name. AMOs are permitted to authorise persons in their employ to date and sign this compliance statement.
5. A signature in item 6 is a certification by the person performing the work that the work was accomplished in accordance with applicable CAA and CAA-approved data. The certification is only

applicable to that work described under item 8. This signature does not indicate CAA approval of the work described under item 8 for return to service.

Item 7 – Approval for Return to Service. Part 5 of the aviation regulations establishes the conditions under which major repairs and modifications to aeronautical products may be approved for return to service. This portion of the form is used to indicate approval or rejection of the repair or modification of the unit involved and to identify the person or agency making the airworthiness inspection. Check the approved or rejected box to indicate the finding. Additionally, check the appropriate box to indicate who made the finding. Use the box labelled "other" to indicate a finding by a person other than those listed. Enter the date the finding was made. The authorised person who made the finding shall sign the form and enter the appropriate certificate or designation number.

1. Previously Approved Data. The forms shall be completed as instructed, ensuring that item 7 is completed as noted above.
2. Non-previously Approved Data. The form shall be completed as instructed, leaving item 7 blank, and both copies of the form shall be sent to the Authority with supporting data. When the Authority determines that the major repair or modification data complies with the applicable regulations and is in conformity with accepted industry practices, data approval will be recorded by entering an appropriate statement in item 3. Both forms and supporting data will be returned to the applicant, who shall complete item 7. The applicant shall give the original of the form, with its supporting data, to the aircraft owner or operator and shall return the duplicate copy to the Authority for inclusion in the aircraft records at its Aircraft Registry.
3. A signature in item 7 does not signify CAA approval unless the box to the left of "CAA Inspector" has been checked. The other persons listed in item 7 are authorised to approve for return to service if the repair or modification is accomplished using CAA-approved data, performed in accordance with Part 5 of the aviation regulations, and found to conform.

Item 8 – Description of Work Accomplished. A clear, concise, and legible statement describing the work accomplished shall be entered in item 8 on the reverse side of the form. It is important that the location of the repair or modification, relative to the aircraft or component, be described. The approved data used as the basis for approving the major repair or modification for the return to service shall be identified and described in this area.

1. For example, if a repair was made to a buckled spar, the description entered in this item might begin by stating, "Removed wing from aircraft and removed skin from outer 1.83 m. Repaired buckled spar 1.25 m from the tip in accordance with…" and continue with a description of the repair. The description shall refer to applicable regulations and approved data used to substantiate the airworthiness of the repair or modification. If the repair or modification is subject to being covered by skin or other structures, a statement shall be made certifying that an in-process inspection was made and that covered areas were found satisfactory.
2. Data used as a basis for approving major repairs or modifications for return to service shall be approved prior to its use for that purpose and includes: ADs, ACs under certain circumstances, TSO parts manufacturing approval, Approved Manufacturer's instructions, kits and service handbooks, type certificate data sheets, and aircraft specifications. Supporting data such as stress analyses, test reports, sketches, or photographs shall be submitted on the form. The Authority will return this supporting data to the applicant.
3. If additional space is needed to describe the repair or modification, sheets shall be attached bearing the aircraft nationality and registration mark and the date the work was completed.
4. Showing mass and balance computations under item 8 is not required; however, it may be done. In all cases where mass and balance of the aircraft are affected, the changes shall be entered in the aircraft mass and balance records with the date, a signature, and a reference to the Major Repair and Modification form that describes the work that required the changes.

Note: The Major Repair and Modification form is not authorised for use on other than Curaçao-registered aircraft. If a foreign civil aviation authority requests the form as a record of work performed, it may be provided.

CURAÇAO CIVIL AVIATION REGULATION

Part 6 — APPROVED MAINTENANCE ORGANIZATION

PART 6— APPROVED MAINTENANCE ORGANIZATION 4

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PART 6— APPROVED MAINTENANCE ORGANIZATION

6.1 GENERAL

6.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for issuing approvals to organizations for the maintenance, overhaul, modification, repair, and inspection, of aircraft and aeronautical products and prescribes the general operating rules for an AMO.

6.1.1.2 DEFINITIONS

(hh) Definitions are contained in Part 1 these regulations.

6.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part.

(1) **AD – Airworthiness Directive**

(2) **AAT** – Airworthiness Approval Tag

(3) **AMM – Aircraft Maintenance Manual**

(4) **AMO** – Approved Maintenance Organization.

(5) **AMT** – Aviation Maintenance Technician

(6) **EWIS** – Electrical Wiring Interconnection System

(7) **IS – Implementing Standards**

(8) **MCM –** Maintenance Control Manual

(9) **NDI** – nondestructive inspection

(10) **NDT** – Non-Destructive Testing

(11) **SB** – Service Bulletin

(12) **SMS** – safety management system

(13) **TC** – type certificate

(14) **PAH** - Production Approval Holder

(15) **TSO** – Technical Standard Order

6.1.1.4 EXEMPTION AUTHORITY

(a) The Authority may, upon consideration of the circumstances of a particular maintenance organization, issue an exemption providing relief from specified sections of this Part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.

(b) The Authority may be terminated or amended an exemption at any time.

(c) A request for exemption shall be made in accordance with the requirements in Part 1 of these regulations and shall include a risk assessment

(d) An approved maintenance organization that receives an exemption shall have a means of notifying the appropriate management, certifying staff, and personnel of the exemption.

6.2 CERTIFICATION OF A MAINTENANCE ORGANIZATION AND CONTINUED VALIDITY OF THE CERTIFICATE

6.2.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for the certification of an organizations involved in the maintenance of aircraft, engines, propellers and associated parts, and the continued validity of the certificate issued by Curaçao.

6.2.1.2 GENERAL

(a) No person may operate as an AMO without, or in violation of, an AMO certificate and operations specifications issued under this part.

(b) The certificate and operations specifications issued to an approved maintenance organization must be available on the premises for inspection by the public and the Authority.

(c) The approval of an AMO by the authority shall be dependent upon the applicant demonstrating compliance with the requirements of this part and the safety management requirements. in this Part.

(d) The authority shall define appropriate requirements for the approval of organizations involved in the maintenance of aircraft, engines, propellers and associated parts.in accordance with the Standards of this Part.

(e) The approval of a maintenance organization or accepting the approval of a maintenance organization issued by another Contracting State, the State of Registry shall ensure compliance with the requirements of this Part.

(f) Where the authority accepts, in whole or in part, a maintenance organization approval issued by another Contracting State, it shall establish a process for the recognition of such approval and successive changes. In such a case, the authority shall build an adequate liaison with the Contracting State that initially issued the maintenance organization approval.

6.2.1.3 AMO CERTIFICATE

(a) The certificate issued to an AMO by Curaçao will consist of two documents:

(1) A one-page certificate for public display signed by the Authority; and

(2) Operations specifications signed by the accountable manager and the Authority.

(b) The certificate will contain the following items and will be on a form and in a manner as prescribed in IS 6.2.1.3

(1) The certificate number specifically assigned to the AMO;

(2) The name and location of the principal place of business of the AMO;

(3) The certification Statement of the Authority;

(4) The ratings issued to the AMO;

(5) The period of validity;

(6) The date of issue; and

(7) The signature, printed name, and title of the appropriate Authority

(c) The operations specifications will contain the following items and will be on a form and in a manner as prescribed by the Authority:

(1) The certificate number specifically assigned to the AMO;

(2) The class or limited ratings issued in detail, including specific terms, conditions, and limitations;

(3) The date issued or revised; and

(4) Signatures of the accountable manager and the Authority.

(d) An AMO may perform maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product only for which it is rated and within the specific terms, conditions, and limitations contained in its operations specifications

(e) The certificate issued to an AMO shall be available on the premises for inspection by the public and the Authority.

6.2.1.4 ADVERTISING

(a) No maintenance organization may advertise as an AMO certificated under this part until the Authority has issued an AMO certificate and associated operations specifications to that organization.

(b) No AMO may make, either orally or in writing any statement about itself that is false or is designed to mislead any person.

(c) Whenever the advertising of a maintenance organization indicates that it is certificated under this part, the advertisement shall clearly state AMO's certificate number.

6.2.1.5 APPLICATION FOR AN AMO CERTIFICATE AND/OR RATINGS

(a) The Authority will require an applicant for approval of a maintenance organization to submit the following:

(1) An application in a form and a manner as prescribed in IS 6.2.1.5;
(2) The organization's AMO Procedures Manual in duplicate;
(3) Compliance checklists;
(4) A list of the maintenance functions to be performed for the organization, under contract, by another person or organization;
(5) A list of all AMO certificates and ratings pertinent to those certificates issued to the organization by any contracting State other than Curaçao;
(6) Documentation of the organization's Quality System; and
(7) Proof of registration with the Chamber of Commerce; and
(8) Any additional information the Authority requires the organization to submit.

(b) An application for the amendment of an existing AMO certificate shall be made on a form and in a manner prescribed by the Authority. If applicable, the AMO shall submit the required amendment to the Maintenance Procedures Manual to the Authority for approval.

(c) Form issued by the Authority shall be completed by the accountable manager, or the Quality manager's in accordance with paragraph 6.2.1.5 (1)(i) of this Part.

(d) An AMO may subcontract work to non-approved maintenance organizations if the contracting AMO is (1) approved for the work to be subcontracted and has the ability to assess the competency of the subcontractor, (2) retains the responsibility for the quality control and release of subcontracted activities, and (3) there exist procedures to control subcontracted activities together with terms of reference for the personnel responsible for their management.

6.2.1.6 ISSUANCE OF AN AMO CERTIFICATE

(a) The issuance of an AMO certificate by Curaçao shall be dependent upon the maintenance organization demonstrating compliance with the requirements of this part and the relevant safety management requirements of Part 1 of these regulations.

1. AMO certificate shall be issued for the benefit of an undertaking carrying out activities relating to the airworthiness of aircraft, if and to the satisfaction of the Director General it has been demonstrated to provide sufficient guarantees for:
    a. proper performance of the work for which approval has been sought;
    b. strict compliance with the rules to be determined by the Minister for the approval of companies and with the other provisions relating to the airworthiness of aircraft, insofar as these apply to the activities concerned, and compliance with the rules to be laid down by the Minister for the recognition of undertakings and other provisions relating to the airworthiness of aircraft, insofar as they apply to the activities in question,
    c. and strict compliance with the provisions of Chapter 10 of Airworthiness Manual ICAO DOC 9760.
2. The activities referred to in the first paragraph of this subpart may include:
    a. the manufacture of materials and semi-finished products/ semi-products for use in aircraft;
    b. the manufacture, maintenance, overhaul, repair and modification of parts and equipment for use in aircraft;
    c. the inspection of parts, appliances, materials and semi-finished products/ semi-products to be used in aircraft;
    d. to supervise the activities referred to in sentence (a) and (b), which have been performed by third parties; the full or partial review/ assess all or part of airworthiness and soundness.

(b) The approval of companies established elsewhere and recognized there by the competent authority may be validated and or equated by the Director General with the recognition for the performance of activities, as referred to in the second paragraph, which, according to the recognition, may be permitted in the country of residence, provided that the contracting state of foreign company does have an ICAO effective implementation higher than 70% and is found compliant with the requirements of this Part.

(c) The Authority may issue an AMO certificate if, after investigation, it finds that the applicant

(1) Meets the applicable regulations and standards for the holder of an AMO certificate; and

(2) Is properly and adequately equipped for the performance of maintenance, overhaul, modification, repair, and inspection of an aircraft or aeronautical product for which it seeks approval;

(3) The applicant complies with the applicable AMO Certificate fee as per Fees & Charges regulation called Luchtvaart Tarieven, as amended, if applicable.

6.2.1.7 DURATION AND RENEWAL OF AN AMO CERTIFICATE

(a) An AMO certificate or any portion of an AMO certificate, issued by the Authority to an AMO located either inside or outside Curaçao is effective from the date of issue until:

(1) The last day of the 12th month after the date on which it was initially issued, subject to satisfactory compliance with the requirements of this Part; or

(2) The last day of the 24th month after the date on which it was renewed, subject to satisfactory compliance with the requirements of this Part; or

(3) The AMO surrenders the certificate to the Authority, or

(4) The Authority cancels, suspends, revokes, or otherwise terminate the certificate.

(b) The holder of an AMO certificate that has expired, has been surrendered by the AMO, or has been suspended or revoked by the Authority shall return the certificate and operations specifications to the Authority within 5 working days of expiration, surrender or receipt from the Authority of notice of suspension or revocation.

(c) An AMO that applies for a renewal of its certificate for aircraft registered in Curaçao shall submit its request for renewal no later than 90 days before the approved AMO's current certificate expires. If a request for renewal is not made within this period, the AMO shall follow the application procedures for initial issuance as prescribed by the Authority.

6.2.1.8 CONTINUED VALIDITY OF AN AMO CERTIFICATE

(a) Unless the AMO certificate has previously been cancelled, surrendered, superseded, suspended, revoked or has expired by virtue of exceeding any expiration date that may be specified in the certificate, the continued validity of the AMO certificate shall depend on;

(1) An AMO remaining in compliance with the requirements of this Part and the relevant safety management requirements of Part 1 of these regulations;

(2) The Authority being granted access to the AMO's facilities to determine continued compliance with the requirements of this part; and

(3) The payment of any charges prescribed by the Authority.

6.2.1.9 AUTHORITY TO INSPECT

(a) The Authority may, at any time, inspect an AMO on the AMO's premises to determine the organization's continued compliance with the requirements of this Part.

(b) Inspections will be conducted by the Authority at least annually.

(c) After an inspection is conducted, the AMO will be notified, in writing, of any deficiencies identified during the inspection as prescribed in IS 6.2.1.9,

(d) Inspections will also be performed on the applicant for, or the holder of an AMO certificate held outside the authorizing Contracting Authority. This inspection may be delegated to the Authority of the State where the AMO is located, provided an arrangement exists.

6.2.1.10 SUSPENSION OR REVOCATION OF AN AMO CERTIFICATE

(a) The Authority may suspend or revoke an AMO certificate if it is established that an AMO has not met, or no longer meets the requirements of this part.

6.2.1.11 CHANGES TO THE AMO AND AMO CERTIFICATE AMENDMENTS

(a) An application for amendment to an existing AMO certificate shall be made on a form and in a manner prescribed by the Authority. If applicable, the AMO shall submit the required amendment to its AMO Procedures Manual to the Authority for approval

(b) In order to enable the Authority to determine continued compliance with this Part, the approved maintenance organization shall notify it of any proposal to carry out any of the following changes, before such changes take place:

(1) The name of the organization;

(2) The location of the organization;

(3) Housing, facilities, equipment, tools, material, procedures, scope of work and certifying staff that may affect the rating(s) issued;

(4) The ratings held by the organization, whether granted by the Authority or held through an AMO certification issued by another Contracting State;

Note: See subsection 6.2.1.5(a)(5) of this part.

(5) Additional locations of the organization;

(6) The AMO Procedures Manual,

(7) The accountable manager; or

(8) The list of management personnel as described in the AMO Procedures Manual.

(c) The Authority will amend the certificate if the AMO notifies the Authority of a change in:

(1) Location or housing and facilities;

(2) Additional locations of the organization;

(3) Rating(s) issued, including deletions;

(4) The AMO Procedures Manual;

(5) The name of the organization with same ownership; or

(6) Ownership.

(d) The Authority may amend the certificate if the AMO notifies the Authority of a change in:

(1) The accountable manager; or

(2) The list of management personnel as described in the AMO Procedure Manual.

(3) Other Items in the Maintenance Procedures Manual,

(e) When the Authority issues an amendment to an AMO's certificate because of new ownership of the AMO, the Authority will assign a new certificate number to the amended certificate.

(f) The Authority may:

(1) Prescribe, in writing, the specific terms, conditions, and limitations under which the AMO shall continue to operate during any period of implementation of the changes noted in paragraph 6.2.11 (b); of this part and

(2) Hold the AMO certificate if the Authority determines that approval of amendments to the AMO certificate may be delayed; the Authority will notify the AMO, in writing, of the reasons for any such delay.

(g) If changes are made by the AMO to the items listed in paragraph .6.2.11 (b) of this part without notification to the Authority or amendment of the AMO certificate by the Authority, the AMO certificate may be suspended, or revoked, by the Authority.

6.2.1.12 AMO RATINGS AND CLASSES

(a) The Authority may issue class(es) and ratings under this Subpart:

1. Except as stated otherwise for the smallest organizations in point 12 this Part., the table referred to in point 13 provides the standard system for the approval of maintenance organization under an organization must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.

2. In addition to the table referred to in point 13, the approved maintenance organization is required to indicate its scope of work in its maintenance organization procedure manual. See also point 11.

3. Within the approval class(es) and rating(s) granted by the authority, the scope of work specified in the maintenance organization exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organizations scope of work are matching.

4. A category A class rating means that the approved maintenance organization may carry out maintenance on the aircraft and any component (including engines and/or Auxiliary Power Units (APUs), in accordance with aircraft maintenance data or, if agreed by the authority, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A-rated approved maintenance organization may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. This will be subject to a control procedure in maintenance organization's procedures manual to be approved by the authority. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

5. A category B class rating means that the approved maintenance organization may carry out maintenance on the uninstalled engine and/or APU and engine and/or APU components, in accordance with engine and/or APU maintenance data or, if agreed by the authority, in accordance with component maintenance data, only whilst such components are fitted to the engine and/or APU. Nevertheless, such B-rated approved maintenance organization may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organization approved with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organization exposition to be approved by the authority. The maintenance organization exposition scope of work shall reflect such activity where permitted by the authority.

6. A category C class rating means that the approved maintenance organization may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organization approved with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance procedure manual to be approved by the authority. The maintenance procedure manual scope of work shall reflect such activity where permitted by the authority.

7. A category D class rating is a self-contained class rating not necessarily related to a specific aircraft,

engine or other component. The D1 — Non Destructive Testing (NDT) rating is only necessary for an approved maintenance organization that carries out NDT as a particular task for another organization. A maintenance organization approved with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the maintenance procedure manual containing NDT procedures, without the need for a D1 class rating.

8. In the case of maintenance organizations approved in accordance with this part, category A class ratings are subdivided into 'Base' or 'Line' maintenance. Such an organization may be approved for either 'Base' or 'Line' maintenance or both. It should be noted that a 'Line' facility located at a main base facility requires a 'Line' maintenance approval.
9. The limitation section is intended to give the competent authorities the flexibility to customize the approval to any particular organization. Ratings shall be mentioned on the approval only when appropriately limited. The table referred to in point 13 specifies the types of limitation possible. Whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organization (an example could be avionic systems installations and related maintenance). Such mention in the limitation section indicates that the maintenance organization is approved to carry out maintenance up to and including this particular type/task.
10. When reference is made to series, type and group in the limitation section of class A and B, series means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB211-524 series or Cessna 150 or Cessna 172 or Beech 55 series or continental O-200 series etc.; type means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type or Cessna 172RG type; any number of series or types may be quoted; group means for example Cessna single piston engine aircraft or Lycoming non-supercharged piston engines etc.
11. Capability list amendments shall be approved by the authority in accordance with paragraph 6.5.1.3 of CCAR Part 6.
12. A maintenance organization which employs only one person to both plan and carry out all maintenance can only hold a limited scope of approval rating. The maximum permissible limits are:

CLASS	RATING	LIMITATION
CLASS AIRCRAFT	RATING A2 AEROPLANES 5700 KG AND BELOW	PISTON ENGINE 5700 KG AND BELOW
CLASS AIRCRAFT	RATING A3 HELICOPTERS	SINGLE PISTON ENGINE 3175 KG AND BELOW
CLASS AIRCRAFT	RATING A4 AIRCRAFT OTHER THAN A1, A2 AND A3	NO LIMITATION
CLASS ENGINES	RATING B2 PISTON	LESS THAN 450 HP
CLASS COMPONENTS RATING OTHER THAN COMPLETE	C1 TO C22	AS PER CAPABILITY LIST
CLASS SPECIALISED	D1 NDT	NDT METHOD(S) TO BE SPECIFIED.

It should be noted that such an organization may be further limited by the authority in the scope of approval dependent upon the capability of the particular organization.

13. Table

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes above 5 700 kg	[Rating reserved to Maintenance Organizations approved in accordance with CCAR Part 6 [Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks] *Example: Airbus A320 Series*	[YES/NO] (*)	[YES/NO] (*)
	A2 Aeroplanes 5 700 kg and below	[Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks] *Example: DHC-6 Twin Otter Series*	[YES/NO] (*)	[YES/NO] (*)
	A3 Helicopters	[Shall state helicopter manufacturer or group or series or type and/or the maintenance task(s)] *Example: Robinson R44*	[YES/NO] (*)	[YES/NO] (*)
	A4 Aircraft other than A1, A2 and A3	[Shall state aircraft category (sailplane, balloon, airship, etc.), manufacturer or group or series or type and/or the maintenance task(s)]	[YES/NO] (*)	[YES/NO] (*)
ENGINES	B1 Turbine	[Shall state engine series or type and/or the maintenance task(s)] *Example: PT6A Series*		
	B2 Piston	[Shall state engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[Shall state engine manufacturer or series or type and/or the maintenance task(s)]		
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	[Shall state aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s).] *Example: PT6A Fuel Control*		
	C2 Auto Flight			
	C3 Comms and Nav			

CLASS	RATING	LIMITATION	BASE	LINE
	C4 Doors — Hatches			
	C5 Electrical Power & Lights			
	C6 Equipment			
	C7 Engine — APU			
	C8 Flight Controls			
	C9 Fuel			
	C10 Helicopter — Rotors			
	C11 Helicopter — Trans			
	C12 Hydraulic Power			
	C13 Indicating — recording system			
	C14 Landing			
	C15 Oxygen			
	C16 Propellers			
	C17 Pneumatic & Vacuum			
	C18 Protection ice/rain/fire			
	C19 Windows			
	C20 Structural			
	C21 Water ballast			
	C22 Propulsion Augmentation			
SPECIALISED SERVICES	D1 Non Destructive Testing	[Shall state particular NDT method(s)]		
(*) Delete as appropriate				

6.2.1.13 AMO LIMITED RATINGS

(a) Whenever the Authority finds it appropriate, it may issue a limited rating to an AMO that intends to maintains or modify only a particular type of aircraft or aeronautical product or intends to perform only specialized maintenance requiring equipment and skills not ordinarily found in an AMO. Such a rating may be limited to a specific model aircraft or aeronautical product, or to any number of products made by a particular manufacturer.

(b) Limited ratings are issued for:

(1) Aircraft of a particular make and model;

(2) Engines of a particular make and model;

(3) COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs of a particular make and model;

(4) SPECIALISED SERVICES.

(5) Any other purpose for which the Authority finds the organization's request appropriate.

(c) The Authority may issue a specialized service rating that approves an AMO to perform specific maintenance procedures or processes. The operations specifications of the AMO shall identify the specification used in performing that specialized service. The specification may be:

(1) A civil or military specification that is currently used by industry and approved by the Authority; or

(2) A specification developed by the AMO and approved by the Authority.

6.2.1.14 QUALITY SYSTEM

(a) An AMO shall establish a quality system that includes a quality assurance programme and shall designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure safe maintenance practices and airworthy aircraft and aeronautical products.

(b) The quality system, and the quality manager, shall be acceptable to the Authority.

(c) The quality system shall include a procedure to initially qualify and periodically perform audits on persons performing work on behalf of the AMO.

(d) The quality system shall include a feedback system to the designated management person or group of persons directly responsible for the quality system and ultimately to the accountable manager who ensures, as necessary, that proper and timely corrective action is taken in response to reports resulting from the independent audits.

(e) The quality system shall be sufficient to review all maintenance procedures, as described in the AMO Procedures Manual and the operator's MCM, in accordance with an approved quality assurance programme once every 12-month period.

(f) The quality system shall indicate when audits are scheduled and when audits are completed and shall establish a system of audit reports that may be reviewed by the Authority on request. The audit system shall clearly establish a means by which audit reports containing observations about non-compliance or poor maintenance practices are communicated to the accountable manager.

(g) If the AMO is a small organization, the independent audit part of the quality system may be contracted to another organization approved under this part or to a person with appropriate technical knowledge and proven satisfactory audit experience.

(h) Where the AMO is part of an air operator certificated under Part 9 of these regulations, the operator's quality system may be combined with the requirements of an AMO and submitted for acceptance to the Authority.

(i) Each AMO shall describe its quality system in relevant documentation as prescribed in IS: 6.2.1.14.

6.2.1.15 LOCATION OF THE AMO

(b) Principal place of business. An applicant for, or the holder of, an AMO certificate issued under this Part shall establish and maintain a principal place of business office that is physically located at the address shown on its certificate.

(c) Additional fixed locations. An AMO may have additional fixed locations that may be approved by the Authority without the Authority certificating each facility as a stand-alone AMO, provided that:

(1) All of the facilities are localized and within a defined area, and

(2) All locations operate under the approval of the AMO certificate and operations specifications.

(d) Foreign locations of AMOs. An AMO may be located in a country outside Curaçao and shall be subject to all the applicable requirements of this Part.

6.2.1.16 CONDITIONS FOR THE USE OF STAFF NOT QUALIFIED IN ACCORDANCE WITH PART-2 AND REFERRED TO PARAGRAPH 6.4.1.1(l)

1. Certifying staff in compliance with all the following conditions are deemed to meet the intent of paragraphs 6.4.1.1(l)(1) and (2):

(a) The person shall hold a licence or a certifying staff authorization issued under national regulations in full compliance with ICAO Annex 1.

(b) The scope of work of the person shall not exceed the scope of work defined by the national licence or the certifying staff authorization, whatever is the most restrictive.

(c) The person shall demonstrate he/she received the training on human factors and aviation legislation referred to in modules 9 and 10 of Part 2, IS 2.6.1.7, paragraph 2.

(d) The person shall demonstrate 5 years continuing airworthiness experience for line maintenance certifying staff and 8 years for base maintenance certifying staff. However, those persons whose authorized tasks do not exceed those of a Part-2 category A certifying staff, need to demonstrate 3 years' maintenance experience only.

(e) Line maintenance certifying staff and base maintenance support staff shall demonstrate he/she received type training and passed examination at the category B1, B2 or B3 level, as applicable, referred to in Part 2, IS 2.6.1.11 for each aircraft type in the scope of work referred to in paragraph (b). Those persons whose scope of work does not exceed those of a category A certifying staff may however receive task training in lieu of a complete type training.

(f) Base maintenance certifying staff shall demonstrate he/she received type training and passed examination at the category C level referred to in Part 2, IS 2.6.1.11 for each aircraft type in the scope of work referred to paragraph (b), except that for the first aircraft type, training and examination shall be at the category B1, B2 or B3 level of Part 2, IS 2.6.1.11.

6.3 HOUSING, FACILITIES, EQUIPMENT, TOOLS, MATERIALS AND TECHNICAL DATA

6.3.1.1 General

(a) An AMO shall provide, housing, facilities, equipment, tools, materials, and technical data in a quantity and quality that meet the requirements for the issuance of the certificate and ratings that the AMO holds.

6.3.1.2 HOUSING AND FACILITIES

a. Housing for the facilities, equipment, materials, and personnel shall be provided appropriate for all planned work ensuring, in particular, protection from weather.

b. All work environments shall be appropriate for the task performed and shall not impair the effectiveness of personnel.

c. Office accommodations shall be appropriate for the management of planned work including, in particular, the management of quality, planning, and records.

d. Specialized workshops and bays shall be segregated, as appropriate, to insure that environmental or work area contamination is unlikely to occur.

e. Storage facilities shall be provided for parts, test equipment, tools, and material.

f. Storage conditions shall provide security for serviceable parts, and segregation of serviceable from unserviceable parts, and prevent deterioration of and damage to stored items.

g. An AMO with an airframe rating shall provide suitable permanent housing to enclose the largest type and model of aircraft listed on its operations specifications.

h. An AMO may perform continuing airworthiness, overhaul, modification, repair, and inspection on aeronautical products outside of its housing if it provides suitable facilities that are acceptable to the Authority.

i. Detailed requirements pertaining to housing and facilities are prescribed in IS 6.3.1.2.

6.3.1.3 **Equipment, Tools, Materials, and Technical Data**

a. An AMO shall have available the necessary equipment, tools, materials, and technical data l to perform the approved scope of work and these items shall be under full control of the AMO. The availability of equipment and tools means permanent availability except in the case of any equipment or tool that is so rarely needed that its permanent availability is not necessary.

b. The Authority may exempt an AMO from possessing specific equipment and tools for continuing airworthiness or modifications of an aircraft or aeronautical product specified in the AMO's approval, if these items can be acquired temporarily, by prior arrangement, and are under full control of the AMO when needed to perform required continuing airworthiness or modifications.

c. The AMO shall use the equipment, tools, and materials that are recommended by the manufacturer of the aircraft or aeronautical product or are at least equivalent to those recommended by the manufacturer and are acceptable to the Authority.

d. The AMO shall control all applicable tools, including personal hand tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness.

e. The AMO shall ensure that all applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness are calibrated to a standard acceptable to the Authority and are traceable to the National Institute of Standards and Technology (NIST) or equivalent.

f. The AMO shall keep all records of calibrations and the standards used for calibration.

g. Detailed requirements pertaining to tools, equipment, and test equipment are prescribed in IS 6.3.1.3.

6.4 ADMINISTRATION

6.4.1.1 PERSONNEL

(a) An AMO shall nominate an accountable manager who, irrespective of other functions, is accountable on behalf of the organization.

(b) The accountable manager shall nominate a person or group of persons, acceptable to the Authority, whose responsibilities shall include ensuring that the AMO is in compliance with the requirements of this part.

(1) The person or persons nominated as manager shall represent the continuing airworthiness management structure of the AMO, and be responsible for all functions specified in Part 6.

(2) Nominated managers shall be directly responsible to an accountable manager who shall be acceptable to the Authority.

(c) An AMO shall employ sufficient personnel to plan, perform, supervise, inspect, and approve for return to service the continuing airworthiness work to be performed.

(d) An AMO shall establish the competence of continuing airworthiness personnel in accordance with a procedure and to a level acceptable to the Authority.

(e) Each supervisor in the AMO shall hold an AMT licence issued in accordance with Part 2 of these regulations.

(f) The person signing an approval for return to service shall be qualified in accordance with Part 2 of these regulations, as appropriate to the work performed and shall be acceptable to the Authority.

(g) Maintenance personnel and certifying shall meet the qualification requirements and shall receive initial, recurrent, and specialized training appropriate to their assigned tasks and responsibilities, in accordance with a training programme approved by the Authority. The training programme established by the AMO shall include training in knowledge and skills related to human factors and human performance, including co-ordination with other maintenance personnel, certifying staff and flight crew. For continuation training refer to IS 6.4.1.1.

(h) Any organization maintaining aircraft, except where stated otherwise in paragraph (l) shall in the case of aircraft line maintenance, have appropriate aircraft rated certifying staff qualified as category B1, B2, B3, as appropriate, in accordance with Part 2, subsection 2.6.1.6 and subsection 6.4.1.7
In addition, such organizations may also use appropriately task trained certifying staff holding the privileges described in Part 2, paragraphs 2.6.1.6(a)(1) and 2.6.1.6(a)(3)(ii) and qualified in accordance with subpart 2.6 of Part-2 and subsection 6.4.1.7 to carry out minor scheduled line maintenance and simple defect rectification. The availability of such certifying staff shall not replace the need for category B1, B2, B3 certifying staff, as appropriate

(i) Any organization maintaining aircraft, except where stated otherwise in paragraph (l) shall:

1. In the case of base maintenance of large aircraft, have appropriate aircraft type rated certifying staff qualified as category C in accordance with Part-2, subpart 2.6 and subsection 6.4.1.7. In addition, the organization shall have sufficient aircraft type rated staff qualified as category B1, B2 as appropriate in accordance with Part-2, subpart 2.6 and subsection 6.4.1.7 to support the category C certifying staff:

(i) B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service.

(ii) The organization shall maintain a register of any such B1 and B2 support staff.

(iii) The category C certifying staff shall ensure that compliance with paragraph (i) has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit.

2. In the case of base maintenance of aircraft other than large aircraft have either:

(i) appropriate aircraft rated certifying staff qualified as category B1, B2, B3, as appropriate, in accordance with Part-2 and subsection 6.4.1.7; or

(ii) appropriate aircraft rated certifying staff qualified in category C assisted by support staff as specified in paragraph 6.4.1.7(a)(i).

(j) Component certifying staff shall comply with Part-2.

(k) By derogation to paragraphs (i) and (j), in relation to the obligation to comply with Part-2, the organization may use certifying staff qualified in accordance with the following provisions:

(1) For organization facilities located outside Curaçao certifying staff may be qualified in accordance with the national aviation regulations of the State in which the organization facility is registered subject to the conditions specified in subsection 6.2.1.16.

(2) For line maintenance carried out at a line station of an organization which is located outside Curaçao, the certifying staff may be qualified in accordance with the national aviation regulations of the State in which the line station is based, subject to the conditions specified in paragraph 6.2.1.16

(3) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organization contracted to provide maintenance support may issue a one-off certification authorization:

1. to one of its employees holding equivalent type authorizations on aircraft of similar technology, construction and systems; or

2. to any person with not less than five years' maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organization appropriately approved under this Part at that location and the contracted organization obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this subparagraph shall be reported to the Authority within three days of the issuance of such certification authorization. The organization issuing the one-off authorization shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organization.

(l) Detailed personnel requirements are prescribed in IS 6.4.1.1.

6.4.1.2 INDOCTRINATION, INITIAL, RECURRENT, SPECIALISED AND REMEDIAL TRAINING

a. An AMO shall have an employee training programme approved by the Authority that consists of indoctrination, initial, recurrent training, specialized and remedial training.

b. An AMO shall develop and update its training programme based on the continuing airworthiness tasks associated with its scope of operating authority and capabilities.

c. An AMO shall ensure that each employee assigned to perform continuing airworthiness, overhaul, modification, repair, or inspections is capable of performing the assigned tasks.

d. An AMO shall submit revisions of its training programme to the Authority for approval.

e. An AMO shall document, on a form and in a manner acceptable to the Authority, the individual employee training required under this subsection. These training records shall be retained for a minimum of two years.

f. The expiration date assigned to an initially approved training programme shall not exceed 24 months from the date of initial approval

g. An AMO's training programme shall meet the detailed requirements prescribed in IS: 6.4.1.2

6.4.1.3 DANGEROUS GOODS TRAINING PROGRAMME

a. An AMO shall have a dangerous goods training programme approved by the Authority for its employees, whether full time, part time, or temporary or contracted, who are engaged in.

(1) The loading, unloading or handling of dangerous goods;

(2) The design, manufacture, fabrication, inspection, marking, maintenance, reconditioning, repairing or testing of a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting dangerous goods;

(3) The preparation of dangerous goods for transport;

(4) Activities for ensuring the safety of transporting dangerous goods;

(5) The operation of a vehicle used to transport dangerous goods, or

(6) The supervision of any of the above listed items.

b. No person shall perform or directly supervise a maintenance function listed in paragraph 6.4.1.3(a) of this part unless that person has received the approved dangerous goods training.

c. An AMO shall ensure that its dangerous goods training:

(1) Ensures that each person performing or directly supervising any of the maintenance functions specified in paragraph 6.4.1.3(a) of this part is trained to comply with all applicable procedures; and

(2) Enables the trained person to recognize items that contain, or may contain, dangerous goods regulated under these regulations.

d. An AMO's dangerous goods training programme shall be approved by the Authority and shall contain the items prescribed in IS: 6.4.1.3.

e. An AMO shall document, on a form in a manner acceptable to the Authority, the individual employee

training required under this subsection. These training records shall be retained by the AMO for a minimum of two years.

6.4.1.4 Rest and Duty Limitations for Persons Performing Maintenance Functions in an AMO

a. No person may assign, nor shall any person perform maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product, unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.

b. No person may be scheduled to perform maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product for more than 12 consecutive hours of duty.

c. In situations involving unscheduled aircraft or aeronautical product unserviceability the AMO may allow persons performing maintenance, overhaul, modification, repair, and inspection on an aircraft or aeronautical product to continue on duty for:

(1) Up to 16 consecutive hours; or

(2) 20 hours in 24 consecutive hours.

d. Following an unscheduled duty period, the AMO shall ensure that each person performing maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product during that unscheduled duty period shall have a mandatory rest period of 10 hours.

e. An AMO shall relieve the person performing maintenance, overhaul, modification, repair, or inspection from all duties for 24 consecutive hours during any 7 consecutive day's period.

6.4.1.5 Records of Management, Supervisory, Inspection and Certifying Staff

(a) An AMO shall maintain a roster of all management and supervisory personnel and and certifying staff which shall include details of the scope of their authorization.

(b) An AMO shall notify certifying staff, in writing, of the scope of their authorization.

(1) The authorization document shall be in a style that makes its scope clear to certifying staff and any authorized person that may be required to examine the document. Where codes are used to define scope, an interpretation document shall be readily available.

(2) Certifying staff shall not be required to carry the authorization document at all times but shall produce it within a reasonable time of a request from an authorized person.

(c) Detailed requirements pertaining to records of management, supervisory, inspection and certifying staff are provided in IS 6.4.1.5.

6.4.1.6 SAFETY MANAGEMENT

(a) An AMO shall implement an SMS system acceptable to the Authority as prescribed in Part 1, Subpart 1.6 of these regulations. Further guidance is contained in the Safety Management Manual (SMM) (ICAO Doc 9859).

6.4.1.7 CERTIFYING STAFF AND SUPPORT STAFF

(a) In addition to the appropriate requirements of paragraphs 6.4.1.1(i) and (j), the organization shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft

and/or components to be maintained together with the associated organization procedures. In the case of certifying staff, this shall be accomplished before the issue or re-issue of the certification authorization:

(i) "Support staff" means those staff holding a Part-2, Subpart 2.6 aircraft maintenance licence in category B1, B2 and/or B3 with the appropriate aircraft ratings, working in a base maintenance environment while not necessarily holding certification privileges.

(ii) "Relevant aircraft and/or components", means those aircraft or components specified the particular certification authorization.

(iii) "Certification authorization" means the authorization issued to certifying staff by the organization and which specifies the fact that they may sign certificates of release to service within the limitations stated in such authorization on behalf of the approved organization.

(b) Excepting those cases listed in paragraph 6.4.1.1(l) and (Part-2), paragraph 2.6.1.6(a)3(ii) the organization may only issue a certification authorization to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance licence as required by Part-2, Subpart 2.6 subject to the licence remaining valid throughout the validity period of the authorization and the certifying staff remaining in compliance with Part-2, Subpart 2.6.

(c) The organization shall ensure that all certifying staff and support staff are involved in at least 6 months of relevant aircraft or component maintenance experience in any consecutive 2-year period.

For the purpose of this paragraph "involved in actual relevant aircraft or component maintenance" means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorization and/or has actually carried out maintenance on at least some of the aircraft type or aircraft group systems specified in the particular certification authorization.

(d) The organization shall ensure that all certifying staff and support staff receive sufficient continuation training in each two-year period to ensure that such staff have up-to-date knowledge of relevant technology and organization procedures.

(e) The organization shall establish a programme for continuation training for certifying staff and support staff, including a procedure to ensure compliance with the relevant paragraphs of IS.6.4.1.1. as the basis for issuing certification authorizations under this Part to certifying staff, and a procedure to ensure compliance with Part-2, Subpart 2.6.

(f) Except where any of the unforeseen cases of paragraph 6.4.1.1(l) apply, the organization shall assess all prospective certifying staff for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure as specified in the procedure manual prior to the issue or re-issue of a certification authorization under this Part.

(g) When the conditions of paragraphs (a), (b), (d), (f) and, where applicable, paragraph (c) have been fulfilled by the certifying staff, the organization shall issue a certification authorization that clearly specifies the scope and limits of such authorization. Continued validity of the certification authorization is dependent upon continued compliance with paragraphs (a), (b), (d), and where applicable, paragraph (c).

(h) The certification authorization must be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorization. Where codes are used to define scope, the organization shall make a code translation readily available. 'Authorized person' means the officials of the Authority who has responsibility for the oversight of the maintained aircraft or component.

(i) The person responsible for the quality system shall also remain responsible on behalf of the organization for issuing certification authorizations to certifying staff. Such person may nominate other persons to actually issue or revoke the certification authorizations in accordance with a procedure as specified in the procedure manual.

(j) The organization shall maintain a record of all certifying staff and support staff, which shall contain:

1. the details of any aircraft maintenance licence held under Part-2, Subpart 2.6 and

2. all relevant training completed; and

3. the scope of the certification authorizations issued, where relevant; and

4. particulars of staff with limited or one-off certification authorizations.

The organization shall retain the records for at least three years after the staff referred to in this paragraph have ceased employment with the organization or as soon as the authorization has been withdrawn. In addition, upon request, the maintenance organization shall furnish the staff referred to in this paragraph with a copy of their personal records on leaving the organization.

The staff referred to in this paragraph shall be given access on request to their personal records as detailed above.

(k) The organization shall provide certifying staff with a copy of their certification authorization in either a documented or electronic format.

(l) Certifying staff shall produce their certification authorization to any authorized person within 24 hours.

(m) The minimum age for certifying staff and support staff is 21 years.

(n) The holder of a category A aircraft maintenance license may only exercise certification privileges on a specific aircraft type following the satisfactory completion of the relevant category A aircraft task training carried out by an organization appropriately approved in accordance with Part 3. This training shall include practical hands on training and theoretical training as appropriate for each task authorized. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment carried out by the organization.

(o) The holder of a category B2 aircraft maintenance licence may only exercise the certification privileges described in paragraph 2.6.1.6(a)(3)(ii) of Part-2 following the satisfactory completion of (i) the relevant category A aircraft task training and (ii) 6 months of documented practical experience covering the scope of the authorization that will be issued. The task training shall include practical hands on training and theoretical training as appropriate for each task authorized. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment. Task training and examination/assessment shall be carried out by the maintenance organization issuing the certifying staff authorization. The practical experience shall be also obtained within such maintenance organization.

6.5 AMO OPERATING RULES

6.5.1.1 AMO PROCEDURES MANUAL

(a) The definition of AMO Procedures Manual is the same as "maintenance organization's procedures manual" as defined in Part 1 of these regulations.

(b) The purpose of the AMO Procedures Manual is to set forth the guidance, instructions, and procedures of the AMO. Compliance with the contents will assure compliance with the requirements of this part, which is a prerequisite to obtaining and retaining an AMO certificate.

(c) Each AMO shall have an AMO Procedures Manual, which may be issued in separate parts. The manual shall be amended as necessary to keep the information contained therein up-to-date.

(d) The AMO Procedures Manual shall:

(1) Provide clear guidance to personnel on how the functions are to be performed under the approval issued by the Authority;

(2) Explain how personnel are managed and describe their duties and responsibilities and how compliance with the relevant continuing airworthiness requirements is achieved; and

(3) Include a statement of the organization's policies and objectives.

(e) If the AMO is part of an air operator certificated under Part 9 of these regulation, the AMO procedures manual and the operator's MCM may be combined.

(f) The AMO Procedures Manual and any subsequent amendments to the manual shall be approved by the Authority prior to use.

(g) An AMO shall promptly furnish copies of all amendments to the AMO Procedures Manual to all organizations or persons to whom the manual has been issued.

(h) The AMO Procedures Manual and any other manual it identifies shall:

(1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(2) Be in a form that is easy to revise and contain a system that allows personnel to determine current revision status;

(3) Have the date of the last revision printed on each page containing the revision;

(4) Not be contrary to any applicable Curaçao regulation or the operations specifications issued to the organization; and

(5) Include a references to appropriate aviation regulations.

(g) Detailed requirements pertaining to the AMO Procedures Manual are prescribed in IS 6.5.1.1.

6.5.1.2 MAINTENANCE PROCEDURES AND THE QUALITY ASSURANCE PROGRAMME

(a) An AMO shall establish procedures, acceptable to the Authority, that ensure safe maintenance practices and compliance with all relevant requirements of this Part.

(b) An AMO shall ensure compliance with paragraph 6.5.1.2(a) of this subsection by either:

(1) Establishing an independent quality assurance programme to monitor compliance with and the adequacy of the procedures; or

(2) Providing a system of inspection to ensure that all maintenance is properly performed.

(c) The independent quality assurance programme of an AMO shall include the audit procedures contained in the AMO Procedures Manual and prescribed in paragraph 4.14 of IS 6.5.1.1.

6.5.1.3 CAPABILITY LIST

(a) An AMO shall prepare and retain a current capability list approved by the Authority.
(b) An AMO shall not perform, overhaul, modification, repair, or inspection on an aeronautical product until the product has been listed on the capability list in accordance with this part.
(c) The capability list shall identify each aircraft and aeronautical product by make and model or other nomenclature designated by the manufacturer and shall be available in a form and manner acceptable to the Authority.
(d) An AMO shall include an aircraft and aeronautical product on the capability list only if the aircraft or aeronautical product is within the scope of the ratings and classes of the AMO certificate and only after an AMO has performed a self-evaluation in accordance with procedures in its AMO Procedures Manual.
(e) An AMO shall perform the self-evaluation to determine that the organization has all the housing, facilities, equipment, tools, materials, technical data, processes, and trained personnel in place to perform the work on the aircraft or aeronautical product as required by this part. If an AMO makes that determination, it shall list the aircraft or aeronautical product on the capability list
(f) Documentation of the self-evaluation described in paragraph 6.5.1.3(e) of this subsection shall be signed by the organization's accountable manager and shall be retained on file by the AMO.
(g) Upon listing an additional aircraft or aeronautical product on its capability list, an AMO shall provide a copy of the revised list to the Authority having jurisdiction over the AMO.
(h) An AMO shall make the capability list(s) available on the premises for inspection by the public and the Authority.
(i) Documentation of the self-evaluation shall be available on the premises for inspection by the Authority.
(j) The AMO shall retain the capability list(s) and self-evaluation(s) for two years from the date accepted by the accountable manager.

6.5.1.4 CONTRACT MAINTENANCE

(a) An AMO shall be approved for the work that is to be contracted and shall have the capability to assess the competence of the contractor.

(b) An AMO may contract a maintenance function pertaining to an aeronautical product to an outside source provided:

    (1) The Authority has approved the maintenance function to be contracted to the outside source; and

    (2) The AMO maintains and makes available to the Authority in a form and manner acceptable to the Authority, the following information:

        (i) The maintenance functions contracted to each outside source, and

        (ii) The name of each outside source to whom the AMO contracts maintenance functions and the type of certificate and ratings, if any, held by each source.

(c) An AMO may contract a maintenance function pertaining to an aeronautical product to a unlicensed person provided:

    (1) The unlicensed person follows a quality control system equivalent to the system followed by the AMO;

    (2) An AMO remains directly in charge of the work performed by the unlicensed person; and

(3) An AMO verifies, by test and/or inspection, that the work has been performed satisfactorily by the unlicensed person and that the aeronautical product is airworthy before approving it for return to service.

(d) Before approving an aeronautical product for return to service following contract maintenance, overhaul, modification, or repair, the AMO shall verify by test and/or inspection that the work has been performed satisfactorily and in accordance with approved methods.

(e) If an AMO performs maintenance functions for another AMO within its own approval scope this is not considered to be subcontracting for the purpose of this subsection.

(f) A list of contractors used by the AMO may be included in the AMO Procedures Manual or in a separate document.

6.5.1.5 PRIVILEGES OF THE AMO

(a) The AMO shall perform the following tasks as permitted by these regulations and in accordance with the AMO Procedures Manual:

(1) Maintain or modify any aircraft or aeronautical product for which it is rated at the location identified in the AMO's approval;

(2) Maintain any aircraft or aeronautical product for which it is rated at any location subject to the need for such maintenance arising from unserviceability of the aircraft or aeronautical product;

(3) Perform the activities in support of a specific air operator where that the operator has requested the services of the AMO at locations other than the location identified on the AMO certificate and the AMO is has been rated to maintain the aircraft of that specific operator at the requested location in the AMO operations specifications approved by the Authority; and

(4) Issue an approval for return to service with respect to paragraphs 6.5.1.5 (a) (1), (2), and (3) of this subsection upon completion of maintenance in accordance with limitations applicable to the AMO.

(b) The AMO may maintain or modify any aircraft or aeronautical product for which it is rated at a place other than the AMO, if:

(1) The task will be performed in the same manner as when performed at the AMO and in accordance with this Subpart;

(2) All necessary housing, facilities, equipment, tools, material, approved and technical data, and certifying staff are available at the place where the work is to be performed; and

(3) The AMO Procedures Manual sets forth approved procedures governing work to be performed at a place other than the AMO.

(c) The AMO may contract out maintenance, overhaul, modifications, repairs, and inspections, other than a complete type certificated product, in accordance with 6.5.1.4 of this part

6.5.1.6 LIMITATIONS OF THE AMO

(a) The AMO shall maintain or modify an aircraft or aeronautical product for which it is approved only when all necessary housing, facilities, equipment, tools, material, approved technical data and certifying staff

are available.

(b) An AMO shall not contract out the maintenance, overhaul, modification, repair, or inspection of a complete type-certificated product.

(c) An AMO shall not provide an approval for return to service of an aircraft or aeronautical product following contract maintenance, overhaul, modification, repair, or inspection without verifying by test or inspection that the work has been performed satisfactorily and in accordance with approved methods.

6.5.1.7 APPROVAL FOR RETURN TO SERVICE OF AN AIRCRAFT OR AERONAUTICAL PRODUCT

(a) An approval for return to service of an aircraft shall be made by appropriately authorized certifying staff when they are satisfied that all required maintenance of the aircraft has been properly performed by the AMO in accordance with the AMO Procedures Manual.

(b) An approval for return to service shall be required at the completion of any maintenance on an aeronautical product or assembly when off the aircraft.

(c) An approval for return to service shall be used for the return of an aircraft or aeronautical product or assembly and shall adhere to the following items.

(1) An approval for return to service shall contain the following statement: “Certifies that the work specified was performed in accordance with current regulations and in respect to that work the aircraft or aeronautical product is considered approved for return to service.”

(2) An approval for return to service shall reference the data specified in the manufacturer's maintenance instructions or instructions for continuing airworthiness.

(3) Where instructions include a requirement to insure that a dimension or test figure is within a specific tolerance as opposed to a general tolerance, the dimension or test figure shall be recorded. It is not sufficient to state that the dimension or the test figure is within tolerance.

(4) The date such maintenance was performed shall include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.

(5) When extensive maintenance has been performed, it shall be acceptable for the approval for return to service to indicate the maintenance as long as there is a cross-reference to the continuing airworthiness record containing full details of the maintenance performed. Dimensional information shall be retained in the continuing airworthiness record.

(6) The person issuing the approval for return to service shall use a full signature and preferably a certification stamp except in a case in which a computer return to service system is used. In this latter case, the Authority will need to be satisfied that only the particular person can electronically issue the approval for return to service.

(7) An aeronautical product that has been maintained off the aircraft requires the issue of an approval for return to service using a CCAA Form 1 for such maintenance and another approval of return to service of the aircraft in regard to maintenance being properly accomplished on the aircraft. The return to service of the aircraft shall be made by the AMO in the aircraft technical log continuing airworthiness records section

(8) When an aeronautical product is returned to service, the AMO shall complete a (CCAA Form 1) on a form and in a manner as prescribed in IS 6.5.1.7. can be obtained at the CCAA.

6.5.1.8 CONTINUING AIRWORTHINESS RECORDS

(a) The AMO shall record, on a form and in a manner acceptable to the Authority, all details for maintenance work performed.

(b) The AMO shall provide a copy of each approval for return to service to the aircraft operator, together with a copy of any specific airworthiness data used for repairs or modifications performed.

(c) The AMO shall retain a copy of all detailed continuing airworthiness records and any associated airworthiness data for two years from the date the aircraft or aeronautical product to which the work relates was returned to service from the AMO.

(d) Records kept in accordance with subsection6.5.1.8 shall be maintained in a form and format that ensures readability, security and integrity of the records at all times.

(e) Each person who maintains, overhauls, modifies, repairs, or inspects an aircraft or aeronautical product shall make an entry in the continuing airworthiness records of that equipment including:

(1) A description and reference to data acceptable to the Authority of work performed.

(2) The date of completion of the work performed.

(3) The name of the person performing the work if other than the person specified in this subsection.

(4) If the work performed on the aircraft or aeronautical product has been performed satisfactorily, the authorized signature, the AMO certificate number, and the type of licence or certificate held by the person approving the work.

(5) The authorized signature, the AMO certificate number, and the type of licence held by the person approving or disapproving for return to service the aircraft, or aeronautical product.

(6) The signature constitutes the approval for return to service only for the work performed.

(f) In addition to the entry required by paragraph 6.5.1.8(e) of this subsection, each person performing a major repairs or major modification shall record such work on a form, and shall dispose of the form in the manner prescribed by IS 5.6.1.1(B) of these regulations.

(g) No person shall describe in any required maintenance entry or form an aircraft or aeronautical product as being overhauled unless:

(1) Using methods, techniques, and practices acceptable to the Authority, it has been disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled; and

(2) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the TC, the STC, or a material, part, process, or appliance approval under a TSO.

(h) No person may describe in any required maintenance entry or form, an aircraft or other aeronautical product as being rebuilt unless it has been:

(1) Disassembled, cleaned, and inspected as permitted;

(2) Repaired as necessary; and

(3) Reassembled and tested to the same tolerances and limits as a new item, using either new parts or used parts that either conform to new part tolerances and limits, or to approved oversized or undersized dimensions.

(4) No person may approve for return to service any aircraft or aeronautical product that has undergone repair or modification unless:

(5) The appropriate continuing airworthiness entry has been made; and

(6) The repair or modification form authorized by or furnished by the Authority has been executed in a manner prescribed by the Authority;

(i) If a repair or modification results in any change in the aircraft operating limitations or flight data contained in the manufacturer's AFM, those operating limitations or flight data shall be appropriately revised and set forth as prescribed by the Authority.

(j) ENTRIES FOR INSPECTIONS. The person approving or disapproving for return to service an aircraft after any inspection performed in accordance with this regulation shall make, in the continuing airworthiness record of that equipment, an entry containing the following information:

(1) The type of inspection and a brief description of the extent of the inspection;

(2) The date of the inspection and aircraft total time in service;

(3) The authorized signature, the AMO certificate number, and the type of licence held by the person approving or disapproving for return to service the aircraft, or aeronautical product, or portions thereof;

(4) If the aircraft is found to be airworthy and approved for return to service, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with [TYPE] inspection and was determined to be in airworthy condition;

(5) If the aircraft is not approved for return to service because of needed maintenance, or non-compliance with the applicable specifications, ADs, or other approved data, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with TYPE] inspection and a list of discrepancies and unairworthy items dated [MM/DD/YYYY] has been provided for the aircraft owner or operator; and

(6) If an inspection is conducted under an inspection programme provided for in this part, the entry shall identify the inspection programme accomplished, and shall contains a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme.

(k) Listing of discrepancies. If the person performing any inspection required by this part finds that the aircraft is not airworthy or does not meet the applicable type certificate data sheet, ADs, or other approved data upon which its airworthiness depends, that person shall give the owner or lessee a signed and dated list of those discrepancies.

6.5.1.9 AIRWORTHINESS - DATA INSTRUCTIONS FOR CONTINUING AIRWORTHINESS

(a) The AMO shall be in receipt of all airworthiness data appropriate to support the work performed from the Authority, the aircraft or aeronautical product design organization, and any other approved design organization in the State of Manufacture or State of Design, as appropriate.

(b) The Authority may classify data from another authority or organization as mandatory and may require the AMO to hold such data.

(c) Where the AMO revises airworthiness data specified in paragraph 6.5.1.9 (a) of this subsection to a format or presentation more useful for its maintenance activities, the AMO shall submit to the Authority an amendment to its AMO Procedures Manual for any such proposed revisions for acceptance by the Authority.

(d) All airworthiness data used by the AMO shall be kept current and made available to all personnel who require access to that data to perform their duties.

(e) Detailed requirements concerning airworthiness data are prescribed in IS 6.5.1.9.

6.5.1.10 REPORTING OF UNAIRWORTHY CONDITIONS

(a) The AMO shall report to the Authority and the aircraft design organization of the State of Design any identified fault, malfunction, defect, or other occurrence that could present a serious hazard to the aircraft.

(b) Reports shall be made in a form and manner prescribed by the Authority and shall contain all information about the condition known to the AMO. Each report shall contain at least the following items:

(1) The aircraft registration number;

(2) The type, make and model of the aeronautical product;

(3) The date of the discovery of the fault, malfunction, defect, or other occurrence;

(4) The time elapsed since the last overhaul, if applicable;

(5) The nature of the fault, malfunction, defect, or other occurrence;

(6) The apparent cause of the fault, malfunction, defect, or other occurrence; and

(7) Other pertinent information that is necessary for more complete identification, determination of seriousness, or corrective action.

(c) Where the AMO is contracted by an AOC holder to carry out maintenance functions, that AMO shall report to the holder any fault, malfunction, defect, or other occurrence affecting the continuing airworthiness of the aircraft or other aeronautical product.

(d) Reports shall be made as soon as practicable, but in any case within three days of the AMO identifying the fault, malfunction, defect, or other occurrence to which the report relates.

6.5.1.11 AMO PERFORMANCE STANDARDS

(a) An AMO that performs any maintenance, overhaul, modification, repair, or inspection for an air operator that is certificated under Part 9 of these regulations, has an approved maintenance programme under 9.5.1.12, and has an approved reliability programme under 9.4.1.13 shall perform that work in accordance with the AOC holder's manuals.

(b) Except as provided in paragraph 6.5.1.11(a) of this subsection, each AMO shall perform its maintenance functions in accordance with the applicable requirements of Part 5 of these regulations.

(c) Each AMO shall maintain, in current condition, all manufacturer's service manuals, instructions, and SBs that relate to the aeronautical product it maintains or modifies.

(d) In addition, each AMO with an avionics rating shall comply with those requirements of Part 5 of

these regulations that apply to electronic systems and shall use materials that conform to approved specifications for equipment appropriate to its rating. It shall use test apparatus, shop equipment, performance standards, test methods, modifications, and calibrations that conform to the manufacturer's specifications or instructions, approved specifications, and if not otherwise specified, to accepted safe practices of the aircraft avionics industry.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 6 — IMPLEMENTING STANDARDS

PART 6 IMPLEMENTING STANDARDS

IS: 6.2.1.3 AMO CERTIFICATE

FORM: CCAA-AMO-02

Page 1 of 1

Curaçao Civil Aviation Authority

MAINTENANCE ORGANIZATION CERTIFICATE

AMO certificate number: …….

Pursuant to CCAR Part 6 (write the complete regulation name PB……. and subject to the conditions specified below, the Curaçao Civil Aviation Authority hereby certifies:

[COMPANY NAME AND ADDRESS]

as a maintenance organization in compliance to CCAR Part 6 (write the complete regulation name PB, approved to maintain the products, parts and appliances listed in the attached terms of approval and issue related certificates of release to service using the above references As specified CCAR Part 6 (write the complete regulation name PB.. for those aircraft listed in the attached terms of approval.

CONDITIONS:

1. This certificate is limited to what is specified in the scope of work section of the approved maintenance organization procedure manual as referred to in subsection 6.5.1.1 of CCAR Part 6; and
2. This certificate requires compliance with the procedures specified in the approved maintenance organization procedure manual; and
3. This certificate is valid whilst the approved maintenance organization remains in compliance with CCAR Part 6.
4. Subject to compliance with the foregoing conditions, this certificate shall remain valid until expiration date as specified on the certificate unless the certificate has been surrendered, superseded, suspended or revoked before that date.

Date of original issue: .....

Date of this revision: .....

Expire date:……

Revision No: ……

Signed:
For the Curaçao Civil Aviation Authority:

Form: CCAA-AMO-02

MAINTENANCE ORGANISATION TERMS OF APPROVAL

Reference: AMO certificate number……..

Organisation: [COMPANY NAME AND ADDRESS]

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT (**)	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)
ENGINES (**)	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs (**)	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
SPECIALISED SERVICES (**)	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)

These terms of approval are limited to the products, parts and appliances and to the activities specified in the scope of work section of the approved maintenance organization procedure manual.
Maintenance organization procedure manual reference:
……

Date of original issue: ……

Date of last revision approved: …… Revision No: ……

Form: CCAA AMO-02

(*) if Curaçao is the authority.

(**) Delete as appropriate if the organization is not approved.

(***) Complete with the appropriate rating and limitation.

(****) Complete with the appropriate limitation

IS: 6.2.1.5 APPLICATION FORM: CCAA- AMO-01.

Application for a CCAR Part 6 Approval

1. Your Reference	Please provide a brief, unique identifier that we will use to refer to your application

2. Applicant Address and Contact Data		
2.1 Applicant Data		
2.1.1 Name and Address (registered (business) name and address/legal seat of the company)	Reference Number	CURCW/.../... (if known)
	Registered Name	Registered Name as specified in the Certificate of Incorporation
	Trading Name	if applicable, enter Trading Name/Doing Business-as Name
	Address	
	Country	
2.1.2 Contact Person (responsible for this application)	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title	
	Phone / Fax	
	Email	
Important Note: An approval may be granted to an organization which may be either a natural person, a legal entity or part of a legal entity. Would you therefore please include with this application confirmation of the legal status of your organization and enclose a copy of your Certificate of Incorporation.		
2.2 Date of Certificate of Incorporation (CoI)		dd/mm/yyyy
2.3 Billing Data (may be left blank, if same as 2.1 Applicant Data)		
2.3.1 Billing Address (CCAA Fees & Charges invoices will state the address entered here)	Company Name	Same as in section 2.1.1 (other name only in exceptional cases)
	Address	
	PO Box	
	Post Code	
	City	
	Country	

2.3.2 Contact Person (Responsible for ensuring the CCAA terms of payment are honored.)	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title	
	Phone / Fax	
	Email	
2.3.3 Invoice Recipient (The electronic invoice will be issued to the email address indicated here)	Email	
2.4 Shipping Data (may be left blank, if same as 2.1 Applicant Data)		
2.4.1 Delivery Address (for the shipping of original CCAA documents)	Company Name	
	Street / Nr	
	PO Box	
	Post Code	
	City	
	Country	
2.4.2 Contact Person (shipping)	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title	
	Phone / Fax	
	Email	

Technical Application Data		
3. References		
CCAA CCAR Part 6°	Please enter your CCAA approval number XXXX) or enter N/A in case of inital application	
4. Addresses of location (s) requiring approval		
4.1 Principal place of business (may be left blank, if same as 2.1 Applicant Data)	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	*Enter IATA code of the Airport or "N/A" if not applicable*
4.2 Additional locations Enter "Not applicable" in the case the Additional Location where maintenance or continuing airworthiness functions are exercised are the same as 3.1 Principal Place of Business.		
4.2.1 Location 1	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.2.2 Location 2	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.2.n Location n	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable

[duplicate table as applicable]

4.3 Line Maintenance Location(s) Enter "Not applicable" in the case the Line Maintenance Location is the same as 4.1 Place of Business or in the case of Form CCAA AMO-02 used for CCAR Part-6 AMO applications/approvals.		
4.3.1 Location 1	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.3.2 Location 2	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.3.n Location n	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable

[duplicate table as applicable]

5. Contacts		
5.1 Accountable Manager	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title/Position	
	Phone/Fax	
	Email	
5.2. Quality/Safety Manager	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title/Position	
	Phone/Fax	
	Email	
5.3. Organization Generic Email		This address will be used for all technical communication including the automatic technical notifications sent by the CCAA.

6. Identification of Activity

6.1 Application for	☐ CCAR Part 6 Approval
6.2 Application Type	☐ ***INITIAL APPLICATION*** ☐ Paragraph 6.2.1.5 (1).i of CCAR Part 6. ☐ Revision of initial application ☐ Organization name ☐ Scope ☐ Address data ☐ Contact detail(s) ☐ Nominated persons ☐ Number of staff ☐ Application for change ☐ Organization name ☐ Scope ☐ Others ☐ Address data ☐ Contact detail(s) ☐ Nominated persons ☐ Number of staff ☐ Notification of surrender
6.3 Terms of CCAR Part 6 AMO Approval and scope of work relevant to this application	Provide information on this application's scope - e.g.: A1 rating and D1 rating; Change of Quality Manager; Addition of a line station. Complete sections 8 to 10 (as applicable) for details of the scope of work.

7. Number of staff

a) The total number of staff employed by the organization in order to comply with CCAR Part-6

b) The number of contracted staff associated with the proposed approval

	a) Employees	b) Contractors
Total		

8. Scope of requested CCAR Part 6 AMO Approval (*)

(*) in case of application for change of the scope of work, only the parts of this table affected by the change shall be completed.

	RATING	LIMITATION	BASE		LINE	
			Yes	No	Yes	No
AIRCRAFT	**A1** Aeroplanes/airships above 5700 Kg	See completion instructions in this subpart				
	A2 Aeroplanes/airships 5700 Kg and below	See completion instructions in this subpart				
	A3 Helicopters	See completion instructions in this subpart				
	A4 Aircraft other than A1, A2 or A3	See completion instructions in this subpart				
ENGINES	**B1** Turbine	See completion instructions in this subpart				
	B2 Piston	See completion instructions in this subpart				
	B3 APU	See completion instructions in this subpart				
COMPONENTS OTHER THAN COMPLETE ENGINES OR AUXILIARY POWER UNITS	**C1** Air Cond & Press ☐ **C2** Auto Flight ☐ **C3** Comms and Nav ☐ **C4** Doors – Hatches ☐ **C5** Electrical Power & Lights ☐ **C6** Equipment ☐ **C7** Engine – APU ☐ **C8** Flight Controls ☐ **C9** Fuel ☐ **C10** Helicopter – Rotors ☐ **C11** Helicopter – Trans ☐ **C12** Hydraulic Power ☐ **C13** Indicating/Recording System ☐ **C14** Landing Gear ☐ **C15** Oxygen ☐ **C16** Propellers ☐ **C17** Pneumatic & Vacuum ☐ **C18** Protection Ice/Rain/Fire ☐ **C19** Windows ☐ **C20** Structural ☐ **C21** Water Ballast ☐ **C22** Propulsion Augmentation ☐	See completion instructions in this subpart			
SPECIALISED SERVICES	**D1** Non Destructive Testing	☐ Eddy Current Inspection ☐ Liquid Penetrant Inspection ☐ Magnetic Particle Inspection ☐ Radiography Inspection ☐ Shearography Inspection ☐ Thermography Inspection ☐ Ultrasonic Inspection	See completion instructions in this subpart			
		☐ Other Method	State particular NDT method(s)			
SPECIALISED ACTIVITIES IN THE COURSE OF MAINTENANCE		See completion instructions in this subpart				

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Reserved

9. Scope of requested Subcontracted Organizations Approval (*)

Please do not enter any data in this table in case of CCAR Part-6 application

(*) in case of application for change of the scope of work, only the parts of this table affected by the change shall be completed.

Rating	Aircraft type/series/group (with engine type)	Subcontracted organizations	Permits to Fly	
A1 Aeroplanes/ airships above 5700 Kg				
A2 Aeroplanes/ airships 5700 Kg and below				
A3 Helicopters				
A4 Aircraft other than A1, A2 or A3				

10. Sub-contracted organizations address data

Name/Address	Enter N/A in case of CCAR Part 6
Name/Address	Enter N/A in case of CCAR Part 6

[add rows as applicable]

11. Other CCAA approvals held by the applicant

12. Applicant's declaration and acceptance of the General Conditions and Terms of Payment

I declare that I have the legal capacity to submit this application to CCAA and that all information provided in this application form is correct and complete.

I have understood that I am submitting an application for which fees or charges will be levied by CCAA in accordance with Regulation on the fees and charges levied by the CCAA, as last amended and available from www.ccaa.cw

☐ I hereby request a financial estimate of the fees or charges related to this application (please tick box if applicable).

In cases where, due to the expected complexity of the project, this estimate requires a prior technical analysis by the CCAA, this analysis shall be charged on an hourly basis, under a contractual agreement to be signed between the applicant and the CCAA. This estimate will be amended if it appears that the task is simpler or can be carried out faster than initially foreseen or, on the contrary, if it is more complex and takes longer to carry out than the CCAA could reasonably have foreseen. The estimate is for information purposes and has no binding effect on the CCAA or applicant. I am aware that CCAA is to continue the processing of this application only after the estimate has been accepted and, consequently the provision of an estimate will lead to a delayed project start.

I acknowledge that I have read and understood the CCAA Terms of Payment (see www.ccaa.cw > the CCAA > FAQs > > Fees & Charges > Downloads > Terms of Payment) and agree to abide by them. I declare to be aware that fees or charges, as well as all relevant travel costs must be paid whether or not the application is successful and that they might not be refundable. Moreover, I declare that I am aware of the consequences of non-payment.

Enter date/location	Enter name	
Date/Location	Name	Signature of Accountable Manager**
****Important note:** CCAA does not accept applications without signature. **The signature** of either the Accountable Manager or of the new proposed Accountable Manager **is always required.**		
This Application including all information as required by CCAR Part 6 should be sent by e-mail, as applicable to: civilair@gobiernu.cw		**Completion Instructions** Please refer to Form CCAA-AMO-01 instructions as amended

Form CCAA-AMO-1 filling instructions related to applications for an initial, change or surrender of CCAR Part 6 approval.

Administrative application data – applicable to all applications

It is strongly recommended to use the English language in completing Form: **CCAA- AMO-01.**
Please complete the form in a clearly legible way.

1. Your Reference	This is an optional information but highly recommended for tractability purposes. The field may be used to provide a unique internal reference to this application. This reference will be used as an identifier of your application in administrative communications, e.g. invoice/s, by CCAA .
2. Applicant Address and Contact Data	
2.1.1 Name and Address	Account N°: if known to you, please enter your CCAA reference Number which follows the pattern CURCW/.../... which can be found on any application acceptance letter received for previous applications. Registered Name: Please enter the full name of the company as it appears on the Certificate of Incorporation/Business Registration or similar legal document stating name of the company. Trading name: if you are using a Trade name differing from the registered company name, please indicate it here, otherwise enter "Not applicable". Street Number, Post Code, city and Country: Please enter the full Address of the company as it appears on the Certificate of Incorporation/Business Registration or similar legal document stating the seat of the company.
2.1.2 Contact Person	The name and contact details specified in this section are those of the person responsible for the application.
2.2 Date of the Certificate of Incorporation (CoI)	Please provide the date of the Certificate of Incorporation/Business Registration or similar legal document stating name and seat of the company. A copy of the Certificate of Incorporation/Business Registration or similar legal document stating name and address of legal seat of the company shall be provided together with an initial application or an application for name change. Additional translation in English language of this document should be submitted.
2.3.1 Billing Address	The (company) name and address specified in this section will be printed on the invoice/s CCAA will issue. A (company) name deviating from the one entered in section 1 "Applicant Registered Name" can only be accepted by CCAA upon justified request. A written statement, signed and stamped, from the legal entity which is taking responsibility to pay the CCAA. Please contact Applicant if in case of questions. Please leave blank if the Billing Address is the same as the registered name and address.
2.3.2 Contact Person	The name and contact details specified in this section are those of the person that will be contacted for all issues connected with the require payments. Responsible for ensuring the CCAA terms of payment are honored.
2.3.3 Invoice Recipient	An electronic invoice copy will be issued to the email address indicated here. The email address provided may also be a generic email address (can be the same as Organization Generic Email)
2.4.1 Delivery Address	The (company) name and postal address specified in this section is where CCAA will send the original certificate/approval. Please leave blank if the Shipping Address is the same as the registered name and address.
2.4.2 Contact Person	The contact person specified in this section is the person the original certificate/approval will be sent

1.1 Technical application data – Application for initial approval

3. References	
CCAR Part 6 Nº	Please enter "Not applicable" for initial approval.
4. Addresses of location (s) requiring approval	
4.1 Principal place of business	Enter the address of **the Principal Place of Business (PPB)**. PPB means the head office or the registered office of the undertaking within which the principal financial functions and operational control of the activities referred to in the Regulation are exercised.
4.2 Additional location(s)	Enter the address(es) of **any additional location(s)** used by the organization, except for Line Maintenance Locations to be listed in block 4.3. This block shall be used to identify locations(s) **in addition to the PPB**, where the organization is performing its activities or having offices (for example: office of the Accountable Manager, records archive, continuing airworthiness management office, base maintenance facilities, engine maintenance facilities, component maintenance facilities, NDT facilities, etc.). [Duplicate the table to add as many additional locations as necessary].
4.3 Line maintenance location(s)	Enter the address (es) of the line maintenance location(s). **All the line stations** shall be listed. This block is only applicable for organizations applying for CCAR Part 6, A1, A2, A3 & A4 ratings. [Duplicate the table to add as many additional locations as necessary].
5. Contacts	
5.1. Accountable Manager	Please enter the full details of the proposed Accountable Manager. The term "proposed" only remains applicable until the application has been approved.
5.2 Quality/Safety Manager	The person identified here as "Quality/Safety Manager" is intended to be the person in the organization who is in charge of maintaining the relationship with the Competent Authority. For CCAR Part 6 this person will be the quality / Safety manager. The "Quality/Safety Manager" will also act as the contact person in case CCAA has administrative questions related to the application.
5.3 Organization Generic Email	Enter the generic email address of the organization. The "generic" email address to be used by CCAA for formal email communication with your organization to ensure an efficient and stable communication channel. This email address will be used for all technical communication, including the automatic technical notifications sent by the CCAA. This address is aimed to be used even though people in charge leave the company. The address should remain independent from a person and therefore without people's name.
6. Identification of Activity	
6.1 Application for	Please indicate the application type: **Application for a CCAR Part 6 Approval** by ticking the box.
6.2 Application Type	**Initial application**: Tick this box when applying for an initial approval. Paragraph 6.2.1.5 (1).i of CCAR Part 6.
	Revision of the Initial Application: Tick this box in the case the organization intends to revise its application before the approval is granted. Please select the box corresponding to the type of change(s). [Multiple selection is possible].

6.3 Terms of CCAR Part 6 Approval and scope of work relevant to this application	Please describe the scope of the application. **For CCAR Part 6 only:** **In case of an initial application** basically the maintenance organization shall summarize the requested ratings without specifying the A/C, engine/APU types. For example: • A1 line and base maintenance; A2 line maintenance only • B1; C2; C14 • Specialized activities in the course of maintenance. **In case of application for revision of initial application**, **only indicate the relevant change**.
7. Number of staff	
(a) Employees	The total number of staff employed by the organization who are involved in the CCAA approval.
(b) Contractors	The total number of contracted staff who are involved in the CCAA approval.
8. Scope of requested CCAR Part 6 Approval	
Scope of requested CCAR Part 6 Approval	Please describe in detail the scope of the application with reference to the information included in block 6.3.
Aircraft: **Rating A limitation**	**A1 rating:** Quote the requested aircraft type(s) by indicating in the column limitation the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. A1 rating is reserved to Part-6 approvals and is not applicable to Part-MF approvals. **A2 rating:** Quote the requested aircraft type(s) by indicating in the column limitation the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. **A3 rating:** Quote the requested aircraft type(s) by indicating in the column limitation the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. **A4 rating:** Quote the requested aircraft series or type(s) by indicating in the column limitation the TC holder and models as defined in Appendix I to AMC to EASA Part-66 as amended. **Line & Base:** (Only applicable to Part-6 organizations) For each aircraft type, the maintenance organization must define the type of maintenance by marking Yes or No in the column Base and/or Line maintenance activity. The definition to be included within the column "Limitation" of the Form 2 is the one addressed within the column N° 3 "type rating endorsement" of Appendix I to AMC to EASA Part-66 as amended. For example, when an organization applies for: • A1 rating A319 (CFM56) Line, the limitation of the Form 2 must address the Airbus A318/A319/A320/A321(CFM56) Line • A1 rating A330 (GE CF6) Base + Line and A330 (PW4000) Line only and A330 (RR RB211 Trent 700) Base only, the limitation of the Form 2 must address all these type different aircraft - engine combination together the Line/Base limitation as applicable to the aircraft-engine combination

Engines: **Rating B limitation**	**B1 rating:** Quote the requested engine type(s) as defined in the engine TCDS. **B2 rating:** Quote requested engine manufacturer or group or type as defined by the OEM **B3 rating:** Quote the requested APU type(s) as defined by the OEM. The B rating is required for maintenance of engines/APUs according to the Engine/APU shop Maintenance Manual.
Components: **Rating C limitation**	**For the Cx ratings:** The requested class C rating shall be ticked. The Cx rating is required for maintenance of components according to the Component Maintenance Manual. Quote under the column limitations the aircraft type or aircraft manufacturer or the particular component and/or the maintenance task(s). Cross-refer to a capability list in the exposition.
Specialized Services Rating D1 limitation	**D1 rating:** The requested NDT method(s) shall be ticked. If the option "Other Method" is ticked, state the particular NDT method. Borescope inspection is not considered as being listed under the D1 rating. Note: Holding the rating D1 enables the organization to issue a Form CCAA-AMO-01 limited to the accomplishment of the NDT inspection.
Specialized Activities in the course of maintenance	Quote the specialized activities (such as NDT, painting, welding, plating, plasma spray, heat treatment, etc.) intended to be performed in the "course of maintenance" under any rating (Ax, Bx or Cx). These activities do not need to be mentioned if contracted to another CCAR Part 6 AMO (as listed in AMO MPM).
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09. Scope of requested Subcontracted organizations	
Scope of requested Subcontracted organizations Approval	Within the applicable rating, select the requested aircraft model and the engine type fitted thereon and subcontracted organizations **Please do not enter any data in this table in case of CCAR Part 6**
10. Subcontracted Organizations address data	
Subcontracted organizations address data	Please list address (es) data of subcontracted organization(s) working under this approval. Add rows as applicable. **Please do not enter any data in this table in case of CCAR Part 6**
11. Other CCAA approvals held by the applicant	
Other CCAA approval held by the applicant	If the organization holds other CCAA approval(s), please indicate the relevant approval number. Eg AOC, Aproved Training Organizations.

Technical application data – Application for change

3. References	
CCAR Part 6 Nº	In case of application for change pertaining to your CCAR Part 6 approval, please enter your CCAA .XXXX number. If your application for change does not pertain your CCAR Part 6 approval enter "Not applicable".
4. Addresses of location (s) requiring approval	
4.1 Principal place of business	In case of application for change pertaining to your principal place of business (PPB), please enter the address that requires approval. PPB means the head office or the registered office of the undertaking within which the principal financial functions and operational control of the activities referred to in the Regulation are exercised.
4.2 Additional location(s)	In case of application for a change pertaining to your additional location(s), please enter only the address affected by the change. This block shall be used to identify **locations(s) in addition to the PPB**, where the organization is performing its activities or having offices (for example: office of the Accountable Manager, records archive, continuing airworthiness management office, base maintenance facilities, engine maintenance facilities, component maintenance facilities, NDT facilities, etc). Line Maintenance Locations to be listed in block 4.3. [Duplicate the table to add as many additional locations as necessary].
4.3 Line maintenance location(s)	In case of application for a change pertaining to your line maintenance location(s), please enter only the address affected by the change. This block is only applicable for organizations holding a CCAR Part 6 A1, A2, A3 & A4 ratings. [Duplicate the table to add as many additional locations as necessary].
5. Contacts	
5.1. Accountable Manager	In case of application for a change pertaining to your Accountable Manager, please enter the full details of the proposed Accountable Manager.
5.2 Quality/Safety Manager	In case of application for a change pertaining to your Quality/Safety manager, please enter the full details of the proposed Quality/Safety manager. The person identified here as Quality/Safety Manager is intended to be the person in the organization who is in charge of maintaining the relationship with the Competent Authority. For CCAR Part 6 this person will be the Quality Manager. The name and contact details specified in this section are those of the person responsible for the application. The "Quality/Safety Manager" will also act as the contact person in case CCAA has administrative questions related to the application.
5.3 Organization Generic Email	In case of application for a change pertaining to your generic email address, please enter the new generic email address of the organization. The "generic" email address to be used by CCAA for formal email communication with your organization to ensure an efficient & stable communication channel. (This email address will be used for all technical communication including the automatic notifications sent by CCAA Inspection and Findings Reports Database Service. This address is aimed to be used even though people in charge leave the company. The address should remain independent from a person and therefore without people's name.

6. Identification of Activity	
6.1 Application for	Please indicate your existing approval affected by the change: **CCAR Part 6 approval** by ticking the appropriate box.
6.2 Application Type	Please tick **Application for change.** Please select the box corresponding to the type of change(s). • Organization name • Address(es) • Nominated persons • Scope (Rating(s), privileges, limitations, etc.) • Contact details • Number of staff Multiple selection is possible. If option "Others" is selected, please describe the type of change in 6.3. **Application for transition:** Tick the applicable box in case your organization is already the holder of a valid CCAA Part-6 No change in scope of work is possible when applying for transition.
6.3 Terms of CCAR Part 6 Approval and scope of work relevant to this application	Please describe the scope of the application for change. The organization is requested to record here only the change to the existing approval and not the whole scope. This field shall be used to detail, in an accurate manner, which kind of change(s) the organization is requesting, such as: - Name change; - Address change; - Addition or removal of location(s); - Removal or addition of rating(s) to the existing Scope; - Removal or addition of aircraft type/ series/ group to the existing scope; - Addition of privileges (e.g permits to fly); - Addition or removal of aircraft models in an existing aircraft type. For example addition of model 747-8F to the already approved aircraft rating Boeing 747-8 (GE GEnx))
	<u>For CCAR Part 6 only:</u> In the case of changes which apply to a specific location, one of the following terms shall be used to identify the change. - **Additional location**: when a new maintenance location is added; - **Deleted location**: when an existing maintenance location is deleted; - **Location upgrade**: when the scope of work of an existing location is upgraded to an upper level (ex. new rating, new aircraft type, etc); - **Location downgrade** when the scope of work of an existing location is downgraded to a lower level (ex. Deletion of a rating, or an aircraft type capability, etc.) A cross reference shall be made to block nr. 3 to link the above terms to a specific location. In addition, the rating affected by the change (at that location) shall be specified. Example 1: *The following changes are requested in the Locations identified in Block 4:* • *Block 4.2.1- XX Airport: Location Downgrade - rating D1 to be deleted* • *Block 4.2.2- YY Airport: Location Upgrade - rating C14 to be added* • *Block 4.3.1- ZZ Airport: Additional Location with rating A1 Line*

7. Number of staff	
(a) Employees	In case of application for a change pertaining to the total number of staff employed by the organization to comply with the applicable CCAR's, please indicate the new number of employed staff.
(b) Contractors	In case of application for a change pertaining to your number of contracted staff associated with the approval, please indicate the new number of contracted staff. **.**
8. Scope of requested CCAR Part 6 Approval	
Scope of requested CCAR Part- 6 approval	Please describe in detail the scope of the application with reference to the information included in block 6.3. In case of application for change of the scope of work, only the parts of this table affected by the change shall be compiled.
Aircraft: **Rating A limitation**	**A1 rating**: Quote the aircraft type(s) by indicating in the column **limitation** the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. A1 rating is reserved to CCAR Part 6 approvals. **A2 rating:** Quote the aircraft type(s) by indicating in the column **limitation** the type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. **A3 rating:** Quote the aircraft type(s) by indicating in the column **limitation** the type rating endorsement and the models as defined in Appendix I to AMC to EASA Part 66 as amended**.** **A4 rating:** Quote the aircraft series or type(s) by indicating in the column **limitation** the TC holder and models as defined in Appendix I to AMC to EASA Part -66 as amended**.** **Line & Base:** For each aircraft type the maintenance organization must define the type of maintenance by marking Yes or No in the column Base and/or Line maintenance activity.
Engines: **Rating B limitation**	**B1 rating:** Quote the engine type(s) as defined in the engine TCDS to be added or removed. B2 rating: Quote engine manufacturer or group or type as defined by the OEM to be added or removed. **B3 rating:** Quote the APU type(s) as defined by the OEM, to be added or removed. **The B rating** is required for maintenance of engines according to the Engine Shop Maintenance Manual. **Note:** For engines on wing maintenance under the A rating refer to Appendix IV to Annex I (EASA Part M).
Components: **Rating C limitation**	The class C rating requested to be added or removed shall be ticked. The Cx rating is required for maintenance of components according to the Component Maintenance Manual.
	Quote under the column limitations the aircraft type or aircraft manufacturer or the particular component and/ or the maintenance task(s). Cross-refer to a capability list in the exposition.
Specialized Services **Rating D1 limitation**	**D1 rating:** The NDT method(s) to be added or removed shall be ticked. If the option "Other Method" is ticked, state the particular NDT method. Borescope inspection is not considered as being listed under the D1 rating. Note: Holding the rating D1 enables the organization to issue a CCAA Form 1 limited to the accomplishment of the NDT inspection.
Specialized Activities in the course of maintenance	Quote specialized activities (such as NDT, painting, welding, plating, plasma spray, heat treatment, etc.) to be added or to be removed. These specialized activities are performed in the "course of maintenance" under any rating (Ax, Bx or Cx) These activities do not need to be mentioned if contracted to another CCAR Part 6 AMO (as listed in AMO Procedure Manual.

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09. Scope of requested subcontracted organizations Approval	
Scope of requested subcontracted organizations **Approval**	Within the applicable rating, select the aircraft model and the engine type fitted thereon and subcontracted organizations related to the requested change. Please do not enter any data in this table in case of CCAR Part 6 application
10. Subcontracted Organizations address data	
Subcontracted Organizations address data	Please list all address(es) of subcontracted organization(s) working under this approval affected by the requested change. Add rows as applicable. **Please do not enter any data in this table in case of CCAR Part 6 application**
11. Other CCAA approvals held by the applicant	
Other CCAA approval held by the applicant	If the organization holds other CCAA approval(s), please indicate the relevant approval number. If the CCAA Part-6 approval is linked to an CCAA AOC or Approved Training Organization, the AOC and Approved Training Organization number shall be also reported.
12. Applicant's declaration and acceptance of the General Conditions and Terms of Payment	
Financial estimate	You may request a financial estimate for a task that is calculated on an hourly basis. This estimate will be amended if it appears that the task is simpler or can be carried out faster than initially foreseen or, on the contrary, if it is more complex and takes longer to carry out than the Agency could reasonably have foreseen. Please be aware that CCAA is to continue the processing of the application only after the estimation has been accepted and, consequently, the provision of an estimation will lead to a delayed project start. The estimation is for information purposes and has no binding effect on the Agency or applicant.
Date/Location	Enter the date of signature and the place in which the Accountable Manager* office is located.
Name of the Accountable Manager	Enter the name of the Accountable Manager*.
Signature of the Accountable Manager	Signature of the Accountable Manager*. **Important note:** Please do not forget to sign the application form. CCAA does not accept unsigned applications.
* In case of a new CCAR Part 6 Applicant or in case of change of Accountable the signature of the name, location of the proposed Accountable Manager is required.	

1.4 Technical application data – Notification of surrender

3. References	
CCAR Part 6 Nº	In case of notification of surrender pertaining to your CCAR Part 6 approval, please enter your CCAA Part 6 .XXXX number.
	In case of notification of surrender pertaining to your CCAA other approval, please enter your CCAA..XXXX number.
4. Addresses of location (s) requiring approval	
4.1 Principal place of business	Enter "Not applicable".
4.2 Additional location(s)	Enter "Not applicable".
4.3 Line maintenance location(s)	Enter "Not applicable".
5. Contacts	
5.1. Accountable Manager	Please enter the full details of the Accountable Manager.
5.2 Quality/Safety Manager	Please enter the full details of the Quality/Safety Manager.
5.3 Organization Generic Email	Please enter the generic email address.
6. Identification of Activity	
6.1 Application for	Enter "Not applicable".
6.2 Application Type	Please tick **Notification of surrender.**
6.3 Terms of CCAR Part 6 Approval and scope of work relevant to this application	Enter "Not applicable".
7. Number of staff	
(a) Number of staff	Enter "Not applicable".
(b) Number of staff	Enter "Not applicable".
8. Scope of requested CCAR Part 6 Approval	
Scope of requested Part 6 approval	Enter "Not applicable".

Aircraft: **Rating A limitation**	Enter "Not applicable".
Engines: **Rating B limitation**	Enter "Not applicable".
Components: **Rating C limitation**	Enter "Not applicable".
Specialized Services **Rating C limitation**	Enter "Not applicable".
Specialized Activities	Enter "Not applicable".
08bis.	
	Reserved
09. Scope of requested Subcontracted organizations Approval	
Scope of requested Subcontracted organizations Approval	Enter "Not applicable".
10. Subcontracted Organizations address data	
Subcontracted Organizations address data	Enter "Not applicable".
11. Other CCAA approvals held by the applicant	
Other CCAA approval held by the applicant	Enter "Not applicable".
12. Applicant's declaration and acceptance of the General Conditions and Terms of Payment	
Financial estimate	You may request a financial estimate for a task that is calculated on an hourly basis. This estimate will be amended if it appears that the task is simpler or can be carried out faster than initially foreseen or, on the contrary, if it is more complex and takes longer to carry out than the Agency could reasonably have foreseen. Please be aware that CCAA is to continue the processing of the application only after the estimation has been accepted and, consequently, the provision of an estimation will lead to a delayed project start. The estimation is for information purposes and has no binding effect on the Agency or applicant.
Date/Location	Enter the date of signature and the place in which the Accountable Manager* office is located.
Name of the Accountable Manager	Enter the name of the Accountable Manager*.
Signature of the Accountable Manager.	Signature of the Accountable Manager*. **Important note:** Please do not forget to sign the application form. CCAA does not accept unsigned applications.

IS 6.2.1.9 AUTHORITY TO INSPECT

(a) The authority may raise findings in case of non-conformities with this Part.

(b) Depending on the severity of the identified situation, the authority will classify these findings as Level 1, 2 or 3.

(1) A level 1 finding is any finding of significant non-compliance with the requirements of this Part which lowers the safety standard and seriously endangers flight safety.

(2) A level 2 finding is any finding of non-compliance with the requirements of this Annex which may lower the safety standard and may endanger flight safety.

(3) Level 3 observation" is any item where it has been identified, by objective evidence, to contain potential problems that could lead to a non-compliance (it is to note that this does not meet the criteria to identify this as a Level 1 or Level 2 finding).

(4) After receipt of notification of findings, the holder of the maintenance organization approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

(5) When during audits or by other means evidence is found showing non-compliance with the requirements of this Part, the authority shall take the following actions:

(6) For level 1 findings, immediate action shall be taken by the authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organization approval, until successful corrective action has been taken by the organization.

(7) For level 2 findings, the corrective action period granted by the authority must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the competent authority may extend the three-month period subject to a satisfactory corrective action plan agreed by the competent authority.

(8) Action shall be taken by the authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the authority.

IS: 6.2.1.14 QUALITY SYSTEM

(a) In order to show compliance with 6.2.1.14 of this part, an AMO shall establish its quality system in accordance with the instruction and information prescribed in the following paragraphs.

1.0 General

1.1 Terminology.

1.1.1 The terms used in the context of the requirement for an AMO's quality system have the following meaning:

(a) **Accountable manager.** The person acceptable to the Authority, who has corporate authority for ensuring that all maintenance functions can be financed and performed to the standard required by the Authority and any additional requirements defined by the AMO.

(b) **Quality assurance.** As distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions that are required to provide adequate confidence that a product or service satisfies quality requirements.

1.2 Purpose of the Quality System.

1.2.1 The quality system shall enable an AMO to monitor compliance with these regulations, the AMO Procedures Manual, and any other standards specified by the AMO, or the Authority, to ensure safe maintenance practices and airworthy aircraft and aeronautical products.

1.3 Organizational Structure.

1.3.1 The AMO may specify the basic structure of the quality system according to the size and complexity of the AMO to be monitored.

1.3.2 An AMO shall be categorized according to the number of full-time personnel. AMOs that employ 5 or fewer full-time employees are considered to be "very small" organizations, while those employing between 6 and 20 full-time employees are regarded as "small" organizations, as far as quality systems are concerned. Full time in this context means employed for not less than 35 hours per week, excluding vacation periods.

1.3.3 Complex quality systems may be inappropriate for a small or very small organization, and the clerical effort required to develop manuals and quality procedures for a complex system may stretch that AMO's resources. It is therefore accepted that such an AMO may tailor its quality system to suit the size and complexity of the organization and allocate resources accordingly.

1.3.4 For small and very small AMOs, it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist shall have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken.

1.3.5 A small AMO may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and/or qualified organizations to perform the quality audits on behalf of the quality manager.

1.4 Scope.

1.4.1 As a minimum, the quality system shall address the following:

(a) Relevant terminology;

(b) The applicable requirements of these regulations;

(c) Any additional standards and maintenance practices of the organization;

(d) A description of the organization, including the organizational structure;

(e) Identification of those persons responsible for the development, establishment, and management of the quality assurance programme, including a description of their duties and responsibilities;

(f) Relevant portions of manuals, reports, and records, including a distribution list of all controlled copies;

(g) The organization's quality policy;

(h) Quality procedures;

(i) A quality assurance programme, including:

(1) The schedule of the monitoring process;

(2) Audit procedures;

(3) Reporting procedures;

(4) Follow-up and corrective action procedures; and

(5) A recording system.

(j) The required financial, material, and human resources; and

(k) Training requirements.

1.5 Safety Attributes.

1.5.1 Where appropriate, an AMO shall incorporate the following safety attributes into its policies, procedures, and processes:

(a) Authority;

(b) Responsibility;

(c) Procedures;

(d) Controls;

(e) Process measurements; and

(f) Interfaces.

1.6 Relevant Documentation.

1.6.1 The required quality system may be documented in the AMO Procedures Manual or in a separate Quality Manual. In either instance, the documentation shall:

(a) Contain instructions and information to allow the personnel concerned to perform their duties with a high degree of safety;

(b) Be easy to revise;

(c) Allow personnel to determine the current revision status;

(d) Have the date of the last revision on each page;

(e) Not be contrary to any applicable regulation or the organization's operations specifications; and

(f) Reference applicable regulations.

1.6.2 Each document defined within the structure of an AMO's quality system shall be subject to document control. Document control procedures shall ensure that the documents are:

(a) Authorized;

(b) Adequate;

(c) Security classified;

(d) Standardized when completed;

(e) Revised and amended when required;

(f) Appropriately distributed;

(g) Appropriately stored;

(h) Periodically reviewed; and

(i) Appropriately disposed of.

1.7 Quality Policy.

1.7.1 An AMO shall establish a formal, written quality policy statement that is a commitment by the accountable manager as to what the quality system is intended to achieve.

1.7.2 The quality policy shall reflect initial and continued compliance with these regulations, the AMO Procedures Manual, and any additional requirements defined by the AMO or the Authority.

1.7.3 The quality policy shall clearly define the AMO's purpose, structure, principal and objectives, and all the services rendered by the AMO.

1.8 Quality Management.

1.8.1 The accountable manager shall have overall responsibility for the AMO's quality system, including the frequency, format, and structure of the internal management evaluation activities as prescribed in paragraph 2.9 of this IS.

1.8.2 The function of the quality manager is to monitor compliance with, and the adequacy of, procedures required to ensure safe maintenance practices and airworthy aircraft and aeronautical products as required by these regulations.

1.8.3 The quality manager shall be responsible for ensuring that the quality assurance programme is properly established, implemented, and maintained.

1.8.4 The quality manager shall:

(a) Report to the accountable manager;

(b) Not be one of the required management personnel; and

(c) Have access to all parts of the AMO and, as necessary, to any contractor's or subcontractor's organization.

1.8.5 In the case of a very small or small AMO, as defined in 1.3.3 of this IS, the positions of the accountable manager and quality manager may be combined.

1.9 Feedback System.

1.9.1 The quality system shall include a feedback system to the accountable manager to ensure that corrective action is identified and promptly addressed.

1.9.2 The feedback system shall specify who is required to rectify discrepancies and non-compliance in each particular case, and the procedure to be followed if corrective action is not completed within an appropriate timescale.

2.0 Quality Assurance Programme

2.1 Introduction.

2.1.1 The quality assurance programme shall include all planned and systematic actions necessary to provide confidence that maintenance functions are conducted in accordance with all applicable requirements, standards, and procedures.

2.2 Quality Assurance Programme Plan.

2.2.1 An AMO shall describe its quality assurance duties, responsibilities, procedures, and organization in a programme plan.

2.2.2 Terms and elements defined in the plan shall be consistent with those outlined in the AMO Procedures Manual.

2.2.3 Copies of the programme plan shall be distributed to all personnel concerned.

2.2.4 Revisions shall be made as necessary to ensure the plan continues to reflect the organization's current quality assurance duties, responsibilities, procedures, and organization.

2.3 Monitoring.

2.3.1 The purpose of monitoring within the quality system is primarily to investigate and judge the effectiveness of the quality system and thereby to ensure that defined policy and maintenance standards are continuously complied with.

2.3.2 Monitoring activity is based upon:

(a) Quality inspections;

(b) Quality audits;

(c) Corrective action; and

(d) Follow-up.

2.3.3 The AMO shall establish and publish a quality procedure to monitor regulatory compliance on a continuing basis. This monitoring activity shall be aimed at eliminating the causes of unsatisfactory performance.

2.3.4 Any non-compliance identified as a result of monitoring shall be communicated to the manager responsible for taking corrective action or, if appropriate, to the accountable manager. Such non-compliance shall be recorded, for the purpose of further investigation, in order to determine the cause and to enable the recommendation of appropriate corrective action.

2.4 Quality Inspection.

2.4.1 The primary purpose of a quality inspection is to observe a particular event, action, document, etc., in order to verify whether established procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.

2.4.2 Typical subject areas for quality inspections are:

(a) Facility's size and segregation;
(b) Office accommodation;
(c) Work environment;
(d) Storage;
(e) Management changes;
(f) Personnel numbers and man-hour plan;
(g) Competence process;
(h) Qualifying certifying staff;

(i) Records of certifying staff;
(j) Issue of authorizations;
(k) Adequate equipment;
(l) Equipment control and calibration;
(m) Approved data held;
(n) Modified maintenance data;
(o) Data availability;
(p) Up-to-date data;
(q) Aircraft return to service;
(r) Release document contents;
(s) Release control;
(t) Details on work documents;
(u) Record retention;
(v) Reporting of unairworthy findings;
(w) Clear work orders;
(x) Procedures per AMO Procedures Manual;
(y) Suppliers and subcontractors;
(z) Acceptance of parts;
(aa) Parts control in storage area;
(bb) Use of tools;
(cc) Cleanliness standards;
(dd) Control of repairs;
(ee) Completion of aircraft maintenance programme;
(ff) Control of ADs;
(gg) Control of modifications;
(hh) Control of working documents;
(ii) Base maintenance findings;
(jj) Defective parts segregation;
(kk) Parts to outside contractors;
(ll) Computer maintenance systems;
(mm) Powerplant running;
(nn) Aircraft procedures;
(oo) Line maintenance parts control;
(pp) Line servicing control;
(qq) Line defect control;
(rr) Aircraft technical log – continuing airworthiness records section completion;
(ss) Pool and loan parts;
(tt) Return of defective parts to base;
(uu) Product maintenance exemption control;
(vv) Procedures deviation control;
(ww) Special services control (NDI);

(xx) Contractors' working teams;
(yy) Product audit;
(zz) Privileges and locations control;
(aaa) Limitation control; and
(bbb) Control of changes.

2.4.3 Typical methods used for quality inspections for maintenance include:

(a) Product sampling – the monitoring of a representative sample of aeronautical products of the aircraft fleet;

(b) Defect sampling – the monitoring of defect rectification performance;

(c) Concession sampling – the monitoring of any concession to not carry out maintenance on time;

(d) On-time maintenance sampling – the monitoring of when (flying hours, calendar time, flight cycles, etc.) aircraft and aeronautical products are brought in for maintenance; and

(e) Sample reports of unairworthy conditions and maintenance errors on aircraft and components.

2.5 Quality Audit.

2.5.1 A quality audit is a systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

2.5.2 Audits shall include at least the following quality assurance procedures and processes:

(a) A statement explaining the scope of the audit;

(b) Planning and preparation;

(c) Gathering and recording evidence; and

(d) Analysis of the evidence.

(e) Checks on:

(1) Aircraft undergoing scheduled maintenance;

(2) Airworthiness data;

(3) Stores and storage procedures;

(4) Maintenance facilities; and

(5) The AMO's general airworthiness control procedures.

2.5.3 Techniques that contribute to an effective audit are:

(a) Interviews or discussions with personnel;

(b) A review of published documents;

(c) The examination of an adequate sample of records;

(d) The observation of the activities that make up the operation; and

(e) The preservation of documents and the recording of observations.

2.6 Auditors.

2.6.1 An AMO may decide, depending upon the complexity of the organization, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team shall have relevant maintenance experience.

2.6.2 The responsibilities of the auditors shall be clearly defined in the relevant documentation.

2.7 Auditor's Independence.

2.7.1 Auditors shall not have any day-to-day involvement in the area of the maintenance activity that is to be audited. An AMO may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An AMO whose structure and size does not justify the establishment of full-time auditors may undertake the audit function by the use of part-time personnel from within its own organization or from external sources under the terms of an agreement acceptable to the Authority. In all cases, the AMO shall develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist is familiar with the type of organization and/or maintenance conducted by the AMO.

2.7.2 The AMO's quality assurance programme shall identify the persons within the company who have the experience, responsibility, and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record any concerns or findings and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific timescales; and

(e) Report directly to the quality manager.

2.8 Audit Scope.

2.8.1 An AMO shall monitor compliance with the maintenance procedures it has designed to ensure safe maintenance practices, airworthy aircraft and aeronautical products, and the serviceability of both maintenance and safety equipment. In doing so it shall, as a minimum and where appropriate, monitor:

(a) Organization;

(b) Plans and company objectives;

(c) Maintenance procedures;

(d) AMO certification, including operations specifications;

(e) Supervision;

(f) Mass, balance, and aircraft loading;

(g) Instruments and safety equipment;

(h) Manuals, logs, and records;

(i) Duty time limitations, rest requirements, and scheduling;

(j) Aircraft maintenance – operations interface;

(k) Use of the MEL;

(l) Maintenance programmes and continuing airworthiness;

(m) AD management;

(n) Maintenance accomplishment;

(o) Defect deferral;

(p) Dangerous goods;

(q) Security; and

(r) Training.

2.8.2 Whatever arrangements are made, an AMO shall retain the ultimate responsibility for the quality system and for the completion and follow-up of corrective action.

2.9 Audit Scheduling.

2.9.1 A quality assurance programme shall include a defined audit schedule and a periodic review cycle area by area.

2.9.2 An AMO shall establish a schedule of audits to be completed during a specified calendar period. All aspects of the AMO shall be reviewed within every 12-month period in accordance with the quality assurance programme unless an extension to the audit period is accepted as explained below. An AMO may increase the frequency of audits at its discretion but shall not decrease the frequency without the agreement of the Authority. Audit frequency shall not be decreased beyond a 24-month-period interval.

2.9.3 When an AMO defines the audit schedule, significant changes to the management, organization, operation, technologies, or these regulations shall be considered.

2.9.4 The schedule shall be flexible and shall allow unscheduled audits when trends are identified.

2.9.5 If the independent quality audit function is being conducted by external auditors, the audit schedule shall be shown in the relevant documentation.

2.10 Corrective Action and Follow-Up.

2.10.1 Corrective Action Plans

(a) The quality assurance programme shall include procedures to ensure that corrective action plans are developed in response to findings. These procedures shall monitor corrective actions to verify their effectiveness and ensure their completion. Organizational responsibility and accountability for the implementation of corrective action shall reside with the department cited in the report identifying the finding. The accountable manager shall have the ultimate responsibility for resourcing the corrective action and ensuring, through the quality manager, that the corrective action has re-established compliance with the requirements of the Authority and any additional requirements defined by the AMO.

(b) Subsequent to the quality inspection/audit, the individuals responsible for managing a quality assurance programme shall facilitate the corrective action process by establishing:

(1) The identification and seriousness of any findings or concerns and any need for immediate corrective action;

(2) The analysis of objective evidence to determine the root cause(s) of the finding or concern;

(3) The identification of planned corrective steps that will ensure that the apparent violation or concern does not recur;

(4) An implementation schedule, including a time frame for putting corrective steps in place; and

(5) The individuals or departments responsible for implementing the corrective action.

2.10.2 Follow-Up.

(a) Follow-up audits shall be scheduled when necessary to verify that corrective action has been performed and that it has been effective.

(b) The quality manager shall:

(1) Ensure that corrective action plans are developed in response to findings of non-compliance;

(2) Verify that corrective action plans include the elements outlined in paragraph 2.10.1 of this IS;

(3) Monitor the implementation and completion of corrective action plans;

(4) Provide management with an independent assessment of corrective action plan development, implementation, and completion; and

(5) Initiate scheduled and/or unannounced follow-up evaluations to ensure the effectiveness of corrective steps specified in corrective action plans.

2.11 Management Evaluation.

2.11.1 A management evaluation is a comprehensive, systematic, documented review by management of the quality system and the AMO's policies and procedures. The management evaluation shall consider:

(a) The results of quality inspections, audits, and any other indicators; and

(b) The overall effectiveness of the management organization in achieving stated objectives.

2.11.2 A management evaluation shall identify and correct trends and shall prevent, where possible, future nonconformities. Conclusions and recommendations made as a result of an evaluation shall be submitted in writing to the responsible manager for action. The responsible manager shall be a person who has the authority to resolve deficiencies or discrepancies and take action.

2.11.3 The accountable manager shall decide upon the frequency, format, and structure of internal management evaluation activities.

2.12 Recording.

2.12.1 The AMO shall maintain accurate, complete, and readily accessible records documenting the results of its quality assurance programme. Records are essential data that enable an organization to analyze and determine the root causes of non-compliance so that areas of non-compliance can be identified and addressed.

2.12.2 The following records shall be retained for a period of 5 years:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Special evaluation reports, including trends or other reasons associated with scheduling a special evaluation;

(d) Responses to findings or concerns contained in the reports;

(e) Corrective action plans and reports submitted in response to findings;

(f) Follow-up and closure reports; and

(g) Management evaluation reports.

2.12.3 An AMO shall maintain and secure the records on its premises.

2.12.4 All records shall be made available to the Authority for review.

2.12.5 Proprietary information shall be protected in accordance with applicable laws and regulations.

3.0 Quality Assurance Responsibility for Contractors

3.1 Contractors.

3.1.1 An AMO may decide to contract certain maintenance functions to external organizations for the provision of services related to areas such as:

(a) Maintenance;

(b) Training;

(c) Manual preparation; and

(d) Specialized service.

3.1.2 The ultimate responsibility for the product or service provided by the subcontractor shall remain with the AMO. A written agreement shall exist between the AMO and the contractor clearly defining the safety-related services and quality to be provided. The contractor's safety-related activities relevant to the agreement shall be included in the AMO's quality assurance programme.

3.1.3 The AMO shall ensure that the subcontractor has the necessary authorization or approval when required and the resources and competent personnel to undertake the task.

4.0 Quality-Related Briefings and Training

4.1 General.

4.1.1 An AMO shall establish effective, well-planned, well-resourced, quality-related briefings for all personnel.

4.1.2 Those responsible for managing the quality system shall receive training covering:

(a) An introduction to the concept of the quality system;

(b) Quality management;

(c) The concept of quality assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Reporting and recording; and

(g) The way in which the quality system functions in the organization.

4.1.3 Time shall be provided to train every person involved in quality management and to brief those not responsible for managing the quality system. The allocation of time and resources may be governed by the size and complexity of the AMO.

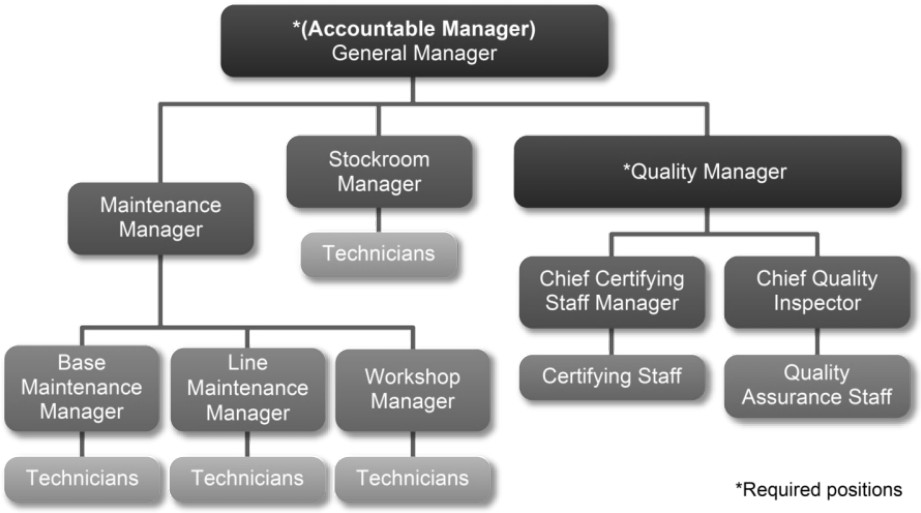
4.2 Sources of Training.

4.2.1 Quality management courses are available from the various National or International Standards Institutions, and an AMO may consider whether to offer such courses to those likely to be involved in the management of quality systems. An AMO with sufficient and appropriately qualified personnel may consider conducting in-house training.

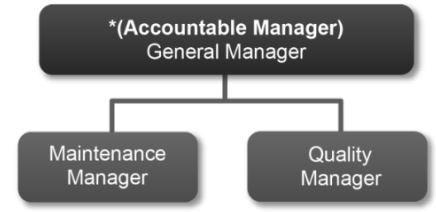
Quality System – Organization Examples

(b) The following diagrams illustrate two typical examples of AMO Quality organizations.

(1) A typical large AMO:



(2) A typical small AMO



IS: 6.3.1.2 HOUSING AND FACILITIES

(a) For ongoing continuing airworthiness of aircraft, the AMO shall have aircraft hangars available that are large enough to accommodate aircraft during continuing airworthiness activities.

(b) Where the hangar is not owned by the AMO, the AMO shall:

(1) Establish proof of authorization to use the hangar;

(2) Demonstrate sufficiency of hangar space to carry out planned base maintenance by preparing a projected aircraft hangar visit plan relative to the continuing airworthiness programme;

(3) Update the aircraft hangar visit plan on a regular basis;

(4) Ensure, for aeronautical product maintenance, that aeronautical product workshops are large enough to accommodate the products on planned continuing airworthiness;

(5) Ensure that aircraft hangar and aeronautical product workshop structures prevent the ingress of rain, hail, ice, snow, wind, dust, etc.;

(6) Ensure that workshop floors are sealed to minimize dust generation; and

(7) Demonstrate access to hangar accommodation for usage during inclement weather for minor scheduled work and/or lengthy defect rectification.

(c) Aircraft maintenance personnel shall be provided with an area where they may study manufacturer's maintenance instructions and complete continuing airworthiness records in a proper manner.

(d) It is acceptable to combine any or all of the above requirements into one office, subject to personnel having sufficient room to perform assigned tasks.

(e) Hangars used to house aircraft together with office accommodation shall be such as to insure a clean, effective and conformable working environment.

(1) Temperatures shall be maintained at a comfortable level.

(2) Dust and any other airborne contamination shall be kept to a minimum and shall not be permitted to reach a level in the work area where visible aircraft or aeronautical product surface contamination is evident.

(3) Lighting shall be such as to ensure each maintenance function may be adequately performed.

(4) Noise levels shall not be permitted to rise to the point of distracting personnel from performing maintenance functions. Where it is impractical to control the noise source, such personnel may be provided with the necessary personal equipment to stop excessive noise from causing distraction during maintenance functions and inspection tasks.

(f) Where a particular maintenance function requires the application of specific environmental conditions different from the foregoing, then such conditions shall be observed. (Specific conditions are identified in the manufacturer's continuing airworthiness instructions.)

(g) Where the working environment for line maintenance deteriorates to an unacceptable level with respect to temperature, moisture, hail, wind, light, dust/other airborne contamination; the particular maintenance function shall be suspended until satisfactory conditions are re-established.

(h) For both base and line maintenance where dust or other airborne contamination results in visible surface contamination, all susceptible systems shall be sealed until acceptable conditions are re-established.

(i) Storage facilities for serviceable aeronautical products shall be clean, well ventilated and maintained at an even dry temperature to minimize the effects of condensation.

(j) Manufacturer standards and recommendations shall be followed for specific aircraft and aeronautical products.

(k) Storage racks shall provide sufficient support for large aeronautical products such that the products are not distorted.

(l) All aeronautical products, wherever practicable, shall remain packaged in protective material to minimize damage and corrosion during storage.

IS: 6.3.1.3 EQUIPMENT, TOOLS, MATERIALS, AND TECHNICAL DATA

(a) All applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness shall be traceable to the National Institute of Standards and Technology (NIST) or equivalent.

(b) Except as provided in IS 6.3.1.3 (a), in the case of foreign manufactured tools, equipment, and test equipment, the standard provided by the county of manufacture may be used if approved by the Authority.

(c) Where the manufacturer specifies a particular tool, equipment, or test equipment then that tool, equipment, or test equipment shall be used unless the manufacturer has identified the use of an equivalent.

(d) Except as provided in IS 6.3.1.3(c), tools, equipment, or test equipment other than that recommended by the manufacturer shall be acceptable based on at least the following:

(1) An AMO shall have procedures in its AMO Procedures Manual if it intends to use equivalent tools, equipment, or test equipment other than that recommended by the manufacturer.

(2) An AMO shall have procedures to include:

(i) Describing the procedures used to establish the competence of personnel who make the determination of equivalency to tools, equipment, or test equipment.

(ii) Conducting and documenting the comparison made between the specification of a tool, equipment or test equipment recommended by the manufacturer and the equivalent tool, equipment, or test equipment proposed.

(iii) Ensuring that the limitations, parameters, and reliability of the proposed tool, equipment, or test equipment are equivalent to the manufacturer's recommended tools, equipment, or test equipment; and

(iv) Ensuring that the equivalent tool, equipment, or test equipment is capable of performing the appropriate continuing airworthiness task and all normal tests, or calibrations, and checking all parameters of the aircraft or aeronautical product undergoing continuing airworthiness or calibration.

(e) An AMO shall have full control (i.e., ownership, lease) of the equivalent tool, equipment, or test equipment.

(f) If authorized to perform base continuing airworthiness, an AMO shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft may be properly inspected.

(g) An AMO shall have a procedure to inspect/service and, where appropriate, calibrate tools, equipment, and test equipment on a regular basis and indicate to users that an item is within any inspection or

service or calibration time limit.

(h) An AMO shall, if it uses a standard (primary, secondary, or transfer standards) for performing calibration, have a procedure to ensure that standard may not be used to perform continuing airworthiness.

(i) An AMO shall use a clear system of labelling all tools, equipment, and test equipment to give information on when the next inspection, service, or calibration is due and to give status information if the item is unserviceable for any other reason that may not be obvious.

(j) An AMO shall use a clear system of labelling all tools, equipment, and test equipment to give information on when such tools, equipment, and test equipment are not used for product acceptance and/or for making a finding of airworthiness.

(k) An AMO shall maintain a register for all calibrated tools, equipment, and test equipment, together with a record of calibrations and standards used.

(l) An AMO shall perform inspection, service, or calibration on a regular basis in accordance with the equipment manufacturers' instructions except where the AMO can show, by results, that a different time period is appropriate in a particular case and is acceptable to the Authority.

IS 6.4.1.1 PERSONNEL

(a) An AMO may be subdivided under individual managers or may be combined in any number of ways, depending on the size of the AMO.

(b) An AMO shall have an accountable manager who is responsible for ensuring that all necessary resources are available to accomplish maintenance required to support the AMO.

(c) An AMO shall have a maintenance manager who is responsible for monitoring the AMO's compliance with the requirements of this part and for requesting remedial action, as necessary, by the base maintenance manager, line maintenance manager, workshop manager, or quality manager, as appropriate. The maintenance manager shall report to the accountable manager.

(d) An AMO shall have, dependent upon the extent of its approval, the following, all of whom shall report to the maintenance manager:

(h) A base maintenance manager shall be responsible for ensuring that all maintenance required to be performed in the hangar, plus any defect rectification performed during base maintenance, is performed to specified design and quality standards.

(i) A line maintenance manager shall be responsible for ensuring that all maintenance required to be performed on the line, including line defect rectification, is performed to the required standards.

(j) A workshop manager shall be responsible for ensuring that all work on aircraft components is performed to required standards.

(k) In small or very small AMOs, one or more of the above positions may be combined subject to approval by the Authority.

(l) An AMO shall have a quality manager who is responsible for:

(m) Monitoring the AMO's compliance with the requirements of this part; and

(n) Requesting remedial action, as necessary, by the base maintenance manager, line maintenance manager, or workshop manager, as appropriate.

(o) An AMO may adopt any title for managerial positions but shall identify to the Authority the titles and persons chosen to carry out these functions.

(p) Where an AMO chooses to appoint managers for all or any combination of the identified functions because of the size of the undertaking, these managers shall report ultimately through either the base maintenance manager, line maintenance manager, workshop manager, or quality manager and, as appropriate, to the accountable manager.

(q) The AMO shall identify the managers specified in this IS and shall submit their credentials to the Authority. To be accepted, such managers shall have relevant knowledge and satisfactory experience related to aircraft and aeronautical product maintenance as appropriate in accordance with these regulations.

(r) An AMO shall notify the Authority within 10 days of any change in personnel or any vacancy in any position listed.

(s) Each AMO holder shall make arrangements to ensure continuity of supervision if operations are conducted in the absence of any required management personnel.

(t) Required management personnel shall be contracted to work sufficient hours such that the management functions are fulfilled.

(u) A person serving in a required management position for an AMO holder may not serve in a similar position for any other AMO holder, unless an exemption is requested by the AMO certificate holder and issued by the Authority.

(v) The minimum entry qualifications for a base maintenance manager are:

1) Shall hold an AMT license issued in accordance with Part 2, Personnel Licensing for the relevant type(s) of aircraft on the AMO Ops Specs (Terms of Approval).
2) 5 years' experience in maintaining the same type of aircraft on the AMO Ops Specs including:
    - 5 years in the capacity of returning aircraft to service; and
    - 2-years supervisory experience maintaining the same category and class of aircraft maintain by the AMO certificate holder.

(w) The minimum entry qualifications for a line maintenance manager are:

1) Shall hold an AMT license issued in accordance with Part 2, Personnel Licensing for the relevant type(s) of aircraft on the AMO Ops Specs (Terms of Approval).
2) 3 years' experience in maintaining the same type of aircraft on the AMO Ops Specs (Terms of Approval) including:
    - 2 years in the capacity of returning aircraft to service; and
    - 1-year supervisory experience maintaining the same category and class of aircraft maintain by the AMO certificate holder.

(x) The minimum entry qualifications for a Quality Manager are:

1) Shall have a minimum 2 years' experience in quality compliance monitoring within in a maintenance organization.
2) Knowledge of and experience with auditing.
3) Knowledge of Safety management system.
4) Knowledge of continuing airworthiness methods.
5) Knowledge of applicable regulations.
6) Those responsible for managing the quality system should receive initial and recurrent training covering:

a) An introduction to the concept of the quality system;
b) Quality management;
c) The concept of quality assurance;
d) Quality manuals;
e) Audit techniques;
f) Reporting and recording; and
g) The way in which the quality system will function in the company.
h) Human factor
i) Additional, training as required by the authority

(y) An AMO shall have a production man-hours plan showing that it has sufficient man-hours for the intended work. If an AMO is authorized for base maintenance, the production man-hours plan shall relate to the aircraft hangar visit plan. An AMO shall regularly update production man-hour plans.

(z) Work performed on any aircraft registered outside Curaçao shall be taken into account if it impacts the production man-hours plan.

(aa) Quality monitoring compliance function man-hours shall be sufficient to meet the requirement of paragraph 6.2.1.14(c) of this part.

(bb) Planners, mechanics, supervisors, and certifying staff shall be assessed for competence by on-the-job evaluation or by examination relevant to their particular role within the AMO before unsupervised work is permitted.

(cc) To assist in the assessment of competence, job descriptions are recommended for each position. The assessment shall establish that:

(dd) Planners are able to interpret maintenance requirements into maintenance functions and have an appreciation that they have no authority to deviate from the aircraft maintenance programme.

(ee) Mechanics are able to carry out maintenance functions to any standard specified in the manufacturer's maintenance instructions and will notify supervisors of mistakes requiring rectification to re-establish required maintenance standards.

(ff) Supervisors are able to ensure that all required maintenance functions are performed, and where not performed or where it is evident that a particular maintenance function cannot be performed to the manufacturer's maintenance instructions, such problems will be reported to and agreed upon by the quality manager.

(gg) Certifying staff are able to determine when the aircraft or aeronautical product shall be approved for return to service.

(hh) Planners, supervisors, and certifying staff shall demonstrate their knowledge of AMO procedures relevant to their particular roles and responsibilities shall be demonstrated.

(ii) Training of certifying staff shall be performed by the AMO or by an institute selected by the AMO. In either case, the AMO shall establish the requirements and curriculum for training, as well as pre-qualification standards for the personnel intended for training. Pre-qualification standards are intended to ensure that the trainee has a reasonable chance of successfully completing any course.

(jj) Examinations shall be set at the end of each training course.

(kk) Initial training shall cover:

(i) Basic engineering theory relevant to the airframe structure and systems fitted to the class of aircraft the AMO maintains;

(2) Specific information on the actual aircraft type or aeronautical product on which the person is intended to become a certifying person, including the impact of repairs and

system or structural defects; and

(ii) Organizational procedures relevant to the certifying staff's tasks.

(ll) Continuation training shall cover changes in AMO procedures and changes in the standard of aircraft and/or aeronautical products maintained.

(mm) The training programme established for maintenance personnel and certifying staff by the AMO shall include:

(i) Details of the number of personnel who will receive initial training to qualify as certifying staff over specified time periods; and

Training in knowledge and skills related to human performance, including coordination with other maintenance personnel and certifying staff

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(nn) (1) For the purposes of subpart 2.6.1.6(a)(1) and 2.6.1.6(a)(3)(ii) personnel, minor scheduled line continuing airworthiness means any minor scheduled inspection/check up to and including a weekly check specified in the aircraft continuing airworthiness programme. For aircraft continuing airworthiness programmes that do not specify a weekly check, the Authority will determine the most significant check that is considered equivalent to a weekly check.

(2) Typical tasks permitted after appropriate task training to be carried out by the 2.6.1.6(a)(1) and 2.6.1.6(a)(3)(ii) personnel, for the purpose of these personnel issuing an aircraft certificate of release to service as specified in 6.5.1.7 as part of minor scheduled line maintenance or simple defect rectification are contained in the following list:

a. Replacement of wheel assemblies.

b. Replacement of wheel brake units.

c. Replacement of emergency equipment.

d. Replacement of ovens, boilers and beverage makers.

e. Replacement of internal and external lights, filaments and flash tubes.

f. Replacement of windscreen wiper blades.

g. Replacement of passenger and cabin crew seats, seat belts and harnesses.

h. Closing of cowlings and refitment of quick access inspection panels.

i. Replacement of toilet system components but excluding gate valves.

j. Simple repairs and replacement of internal compartment doors and placards but excluding doors forming part of a pressure structure.

k. Simple repairs and replacement of overhead storage compartment doors and cabin furnishing items.

l. Replacement of static wicks.

m. Replacement of aircraft main and APU aircraft batteries.

n. Replacement of inflight entertainment system components other than public address.

o. Routine lubrication and replenishment of all system fluids and gases.

p. The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the authority as a simple task.

q. Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers or the use of special tools.

r. Replacement of any other component as agreed by the Authority for a particular aircraft type only where it is agreed that the task is simple.

s. Any other task agreed by the Authority as a simple task for a particular aircraft type. This may include defect deferment when all the following conditions are met:

a. There is no need for troubleshooting; and

b. The task is in the MEL; and

c. The continuing airworthiness action required by the MEL is agreed by the authority to be simple. In the particular case of helicopters, and in addition to the items above, the following:

t. Removal and installation of Helicopter Emergency Medical Service (HEMS) simple internal medical equipment.

u. Removal and installation of external cargo provisions (i.e., external hook, mirrors) other than the hoist.

v. Removal and installation of quick release external cameras and search lights.

w. Removal and installation of emergency float bags, not including the bottles.

x. Removal and installation of external doors fitted with quick release attachments.

y. Removal and installation of snow pads/skid wear shoes/slump protection pads.

(3) No task which requires troubleshooting should be part of the authorized continuing airworthiness actions. Release to service after rectification of deferred defects should be permitted as long as the task is listed above.

(4) The requirement of having appropriate aircraft rated certifying staff qualified as category B1, B2, B3, as appropriate, in the case of aircraft line maintenance does not imply that the organization must have B1, B2 and B3 personnel at every line station. The AMO procedures manual should have a procedure on how to deal with defects requiring B1, B2 or B3 certifying staff.

(5) The Authority may accept that in the case of aircraft line maintenance an organization has only B1, B2 or B3 certifying staff, as appropriate, provided that the Authority is satisfied that the scope of work, as defined in the AMO procedures manual does not need the availability of all B1, B2 and B3 certifying staff. Special attention should be taken to clearly limit the scope of scheduled and non-scheduled line maintenance (defect rectification) to only those tasks that can be certified by the available certifying staff category.

(oo) In accordance with subpart 6.4.1.1(k) and subpart 6.4.1.7, the qualification requirements (basic licence, aircraft ratings, recent experience and continuation training) are identical for certifying staff and for support staff. The only difference is that support staff cannot hold certification privileges when performing this role since during base maintenance the release to service will be issued by category C certifying staff.

Nevertheless, the organization may use as support staff (for base maintenance) persons who already hold certification privileges for line maintenance.

(pp) 1. Holding a Part-2 licence with the relevant type/group rating, does not mean by itself that the holder is qualified to be authorized as certifying staff and/or support staff. The organization is responsible to assess the competence of the holder for the scope of maintenance to be authorized.

2. The sentence, subpart 6.4.1.7(a) "the organization shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organization procedures" means that the person has received training and has been successfully assessed on:

(i) the type of aircraft or component;

(ii) the differences on:

a. the particular model/variant;

b. the particular configuration.

The organization should specifically ensure that the individual competencies have been established with regard to:

(a) relevant knowledge, skills and experience in the product type and configuration to be maintained, taking into account the differences between the generic aircraft type rating training that the person received and the specific configuration of the aircraft to be maintained.

(b) appropriate attitude towards safety and observance of procedures.

(c) knowledge of the associated organization and operator procedures (i.e. handling and identification of components, MEL use, Technical Log use, independent checks, etc.).

3. Some special maintenance tasks may require additional specific training and experience, including but not limited to:

(a) in-depth troubleshooting;

(b) very specific adjustment or test procedures;

(c) rigging;

(d) engine run-up, starting and operating the engines, checking engine performance characteristics, normal and emergency engine operation, associated safety precautions and procedures;

(e) extensive structural/system inspection and repair;

(f) other specialized maintenance required by the maintenance programme.

(g) For engine run-up training, simulators and/or real aircraft should be used.

(h) Fuel Tank Safety training:

Phase 1 – Awareness training.

Phase 2 – Detailed training

Applicable for Post holders working for AMO's managing a/c with max pax capacity of 30 or more

(i) EWIS Training (Electrical Wiring Interconnection System)

Applicable for Post holders working for AMO's managing a/c with max pax capacity of 30 or more.

4. The satisfactory assessment of the competence should be conducted in accordance with a procedure approved by the Authority (item 4.4 of the AMO procedures manual, as described in IS 6.5.1.1.

5. The organization should hold copies of all documents that attest the competence and recent experience for the period described in paragraph 6.4.1.7(j).

Additional information is provided in paragraph 2.6.1.6(b)2 (Part-2).

(qq) The organization issues the certification authorization when satisfied that compliance has been established with the appropriate paragraphs of Part-6 and Part-2. In granting the certification authorization the maintenance organization approved under Part-6 needs to be satisfied that the person holds a valid Part-2 aircraft maintenance licence and may need to confirm such fact with the authority.

(rr) For the interpretation of "6 months of actual relevant aircraft continuing airworthiness experience in any consecutive 2-year period", the provisions of paragraph 2.6.1.6(b)2 of (Part-2) are applicable.

(ss) 1. Continuation training is a two-way process to ensure that certifying staff remain current in terms of procedures, human factors and technical knowledge and that the organization receives feedback on the adequacy of its procedures and continuing airworthiness instructions. Due to the interactive nature of this training, consideration should be given to the possibility that such training has the involvement of the quality department to ensure that feedback is actioned. Alternatively, there should be a procedure to ensure that feedback is formally passed from the training department to the quality department to initiate action.

2. Continuation training should cover changes in relevant requirements such as Part-6, changes in organization procedures and the modification standard of the products being maintained plus human factor issues identified from any internal or external analysis of incidents. It should also address instances where staff failed to follow procedures and the reasons why particular procedures are not always followed. In many cases the continuation training will reinforce the need to follow procedures and ensure that incomplete or incorrect procedures are identified to the company in order that they can be corrected. This does not preclude the possible need to carry out a quality audit of such procedures.

3. Continuation training should be of sufficient duration in each 2-year period to meet the intent of 6.4.1.7(d) and may be split into a number of separate elements. 6.1.4.7(d) requires such training to keep certifying staff updated in terms of relevant technology, procedures and human factors issues which means it is one part of ensuring quality. Therefore, sufficient duration should be related to relevant quality audit findings and other internal / external sources of information available to the organization on human errors in continuing airworthiness. This means that in the case of an organization that maintains aircraft with few relevant quality audit findings, continuation training could be limited to days rather than weeks, whereas a similar organization with a number of relevant quality audit findings, such training may take several weeks. For an organization that maintains aircraft components, the duration of continuation training would follow the same philosophy but should be scaled down to reflect the more limited nature of the activity. For example certifying staff who release hydraulic pumps may only require a few hours of continuation training whereas those who release turbine engine may require a few days of such training. The content of continuation training should be related to relevant quality audit findings and it is recommended that such training is reviewed at least once in every 24-month period.

4. The method of training is intended to be a flexible process and could, for example, include a Part-3 continuation training course, aeronautical college courses, internal short duration courses, seminars, etc. The elements, general content and length of such training should be specified in the maintenance procedure manual unless such training is undertaken by an organization approved under Part-3 when such details may be specified under the approval and cross referenced in the maintenance procedure manual.

(tt) The programme for continuation training should list all certifying staff and support staff and when training will take place, the elements of such training and an indication that it was carried out reasonably on time as planned. Such information should subsequently be transferred to the certifying staff and support staff record as required by paragraph 6.4.1.7(j).

(uu) As stated in paragraph 6.4.1.7(f), except where any of the unforeseen cases of paragraph 6.4.1.1(l)(3) applies, all prospective certifying staff and support staff should be assessed for competence related to their intended duties in accordance with IS:6.4.1.1(p) and IS 6.4.1.4, as applicable.

(vv) 1. The following minimum information as applicable should be kept on record in respect of each staff and support staff:

a. Name
b. Date of Birth
c. Basic Training
d. Type Training
e. Continuation Training
f. Experience
g. Qualifications relevant to the authorization
h. Scope of the authorization
i. Date of first issue of the authorization
j. If appropriate – expiry date of the authorization
k. Identification Number of the authorization

2. The record may be kept in any format but should be controlled by the organization's quality department. This does not mean that the quality department should run the record system.

3. Persons authorized to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorized manner or that such confidential records become accessible to unauthorized persons.

4. The Authority is an authorized person when investigating the records system for initial and continued approval or when the Authority has cause to doubt the competence of a particular person.

(ww) 1. It is the responsibility of the Part-6 organization issuing the category A certifying staff authorization to ensure that the task training received by this person covers all the tasks to be authorized. This is particularly important in those cases where the task training has been provided by a Part-3 organization or by a Part-6 organization different from the one issuing the authorization.

2. "Appropriately approved in accordance with (Part-3)" means an organization holding an approval to provide category A task training for the corresponding aircraft type.

3. "Appropriately approved in accordance with (Part-6)" means an organization holding a maintenance organization approval for the corresponding aircraft type.

(xx) 1. The privilege for a B2 licence holder to release minor scheduled line maintenance and simple defect rectification in accordance with paragraph 2.6.1.6(a)(3)(ii)(Part-2) can only be granted by the Part-6 approved organization where the licence holder is employed/contracted after meeting all the requirements specified in paragraph 6.4.1.7(o). This privilege cannot be transferred to another Part-6 approved organization.

2. When a B2 licence holder already holds a certifying staff authorization containing minor scheduled line maintenance and simple defect rectification for a particular aircraft type, new tasks relevant to category A can be added to that type without requiring another 6 months of experience. However, task training (theoretical plus practical hands-on) and examination/assessment for these additional tasks is still required.

3. When the certifying staff authorization intends to cover several aircraft types, the experience may be combined within a single 6-month period.

For the addition of new types to the certifying staff authorization, another 6 months should be required unless the aircraft is considered similar per paragraph 2.6.1.6(b)2, (Part-2) to the one already held.

4. The term "6 months of experience" may include full-time employment or part-time employment. The important aspect is that the person has been involved during a period of 6 months (not necessarily every day) in those tasks which are going to be part of the authorization.

IS 6.4.1.2 INDOCTRINATION, INITIAL, RECURRENT, SPECIALIZED AND REMEDIAL TRAINING.

(a) An AMO shall provide indoctrination training for employees that includes at least 40 hours of instruction in at least the following subjects:

(1) Regulations of Curaçao – particularly those associated with AMO maintenance functions and authority as reflected on the certificate and the associated operations specifications.

(2) Company manuals, policies, procedures and practices, including quality control processes, particularly those associated with ensuring compliance with continuing airworthiness procedures established to show compliance with this part;

(3) Dangerous goods requirements of subsection 6.4.1.3 of this part, including other local and Curaçao, laws requiring training for different categories of personnel;

(4) Human performance, including coordination with other maintenance personnel and certifying staff;

(5) Maintenance human factors – the elements of which should focus on aviation continuing airworthiness and safety related issues.

(6) Computer systems and software – as applicable to the AMO's continuing airworthiness, overhaul, modification, repair, and inspection systems and procedures, and

(7) Facility security - which shall include company security objectives, specific security procedures, personnel responsibilities, actions to take in the event of a security breach, and the organizational security structure.

(b) Initial training. Each AMO shall provide initial training for employees that includes at least 80 hours of instruction in at least the following subjects consistent with the specific employee position and assigned job activities:

(1) General review;

(2) Specific job task training;

(3) Workshop safety;

(4) Records and recordkeeping;

(5) Materials and parts;

(6) Test equipment, including ground support equipment;

(7) Tools;

(8) Maintenance human factors, and

(9) Any other items as required by the Authority.

(c) Recurrent training. Each AMO shall provide recurrent training for employees that include at least 8 hours of instruction in the subjects below:

(1) Refresher of subjects covered in initial training

(2) New items introduced in the AMO since completion of initial training;

(3) Any other items required by the Authority.

(d) Specialized training. Each AMO shall provide specialized training, including initial and recurrent, for employees whose duties require a specific skill. Examples of specialized skills include: flame and/or plasma spray operations, special inspection or test techniques, special machining operations, complex welding operations, aircraft inspection techniques or complex assembly operations.

(e) Remedial training. Each AMO shall provide remedial training to rectify an employee's demonstrated lack of knowledge or skill by providing information as soon as possible. In some instances, remedial training may consist of an appropriately knowledgeable person reviewing procedures with an employee through on-the-job training. Remedial training shall be designed to fix an immediate knowledge or skill deficiency and may focus on one individual. Successful remedial training should show an individual what occurred, why it occurred, and in a positive manner, how to prevent it from occurring again.

(f) Each AMO, in developing training for employees, shall take into account the various training, experience, and skill levels of:

(1) Employees who hold an AMT licence;

(2) Employees with experience performing similar tasks at another AMO;

(3) Employees with applicable military aviation continuing airworthiness experience; and

(4) Employees with no prior skills, experience, or knowledge.

(g) Each AMO shall have procedures to determine the frequency of recurrent training and the need for specialized and remedial training.

(h) Each AMO shall assess the competency of an employees in performing his or her assigned duties after completion of initial, recurrent, specialized and/or remedial training. This assessment of competency shall be appropriately documented in the employee's training records and shall be accomplished by using any of the following methods, depending upon the size of the AMO, its capabilities and the experience of its employees:

(1) A written test.

(2) The completion of a training course.

(3) A skill test;

(4) A group exercise;

(5) An on-the-job assessment; and

(6) An oral examination in the working environment.

IS: 6.4.1.3 DANGEROUS GOODS TRAINING PROGRAMME

(a) Dangerous goods training, at a minimum, shall include at least 8 hours' instruction in at least the following:

(1) General awareness/familiarization training —. Is designed to provide familiarity with the requirements of this part and the dangerous goods requirements in Parts 8 and 9 of these regulations and to enable the employee to recognize and identify dangerous goods.

(2) Function-specific training —Concerns the specific requirements of this part and the dangerous goods requirements in Parts 8 and 9 of these regulations, or exemptions or special permits issued, relating to the specific functions the employee performs. Includes safety training concerning.

(i) Emergency response.

(ii) Measures to protect the employee from the hazards associated with the dangerous goods to which they may be exposed in the work place, including specific measures the employer has implemented to protect employees from exposure.

(iii) Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing dangerous goods.

(3) Security/awareness training — Addresses the security risks associated with dangerous goods transportation and the methods designed to enhance transportation security. This training shall also include a component covering how to recognize and respond to possible security threats.

(4) In-depth security training ——Includes company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

(5) Any other training required by the Authority.

(6) Recurrent training shall be provided within 24 months of previous training

IS: 6.4.1.4 HUMAN FACTORS AND HUMAN PERFORMANCE

(a) In respect to the understanding of the application of human factors and human performance issues, all maintenance organization personnel should have received an initial and continuation human factors training. This should concern to a minimum:

i. Post-holders, managers, supervisors;
ii. Certifying staff, support staff and mechanics;
iii. Technical support personnel such as planners, engineers, technical record staff;
iv. Quality control/assurance staff;
v. Specialized services staff;
vi. Human factors staff/human factors trainers;
vii. Store department staff, purchasing department staff;
viii. Ground equipment operators.

(b) Initial human factors training should cover all the topics of the training syllabus specified in ICAO DOC 9824 Chapter 5, Appendix B, either as a dedicated course or else integrated within other training. The syllabus may be adjusted to reflect the particular nature of the organization. The

syllabus may also be adjusted to meet the particular nature of work for each function within the organization. For example:

i. small organizations not working in shifts may cover in less depth subjects related to teamwork and communication;
ii. planners may cover in more depth the scheduling and planning objective of the syllabus and in less depth the objective of developing skills for shift working.

All personnel, including personnel being recruited from any other organization should receive initial human factors training compliant with the organization's training standards prior to commencing actual job function, unless their competence assessment justifies that there is no need for such training. Newly directly employed personnel working under direct supervision may receive training within 6 months after joining the maintenance organization.

(c) The purpose of human factors continuation training is primarily to ensure that staff remain current in terms of human factors and also to collect feedback on human factors issues. Consideration should be given to the possibility that such training has the involvement of the quality department. There should be a procedure to ensure that feedback is formally passed from the trainers to the quality department to initiate action where necessary.

Human factors continuation training should be of an appropriate duration in each two-year period in relation to relevant quality audit findings and other internal/external sources of information on human errors in continuing airworthiness available to the organization.

(d) Human factors training may be conducted by the maintenance organization itself, or independent trainers, or any training organizations acceptable to the Authority.

(e) The human factors training procedures should be specified in the maintenance procedure manual.

IS: 6.4.1.5 RECORDS OF MANAGEMENT AND SUPERVISORY PERSONNEL AND CERTIFYING STAFF

(a) The AMO shall keep the following minimum information on record with respect to each management, supervisory, inspection, and certifying person:

(1) Name;
(2) Date of birth;
(3) Basic training;
(4) Type training;
(5) Continuation training;
(6) Experience;
(7) Qualifications relevant to the approval;
(8) Scope of the authorization;
(9) Date of first issue of the authorization;
(10) Expiration date of the authorization (if appropriate); and
(11) Identification number of the authorization.

(b) Records of these individuals shall be controlled.

(c) The number of persons authorized to access the system shall be limited to minimize the possibility of records being altered in an unauthorized manner and to limit confidential records from become accessible to unauthorized persons.

(d) A certifying person shall be given, on request, reasonable access to his or her records.

(e) The Authority is authorized to and may investigate the records system for initial and continued approval, or when the Authority has cause to doubt the competence of a particular certifying person.

(f) The AMO shall keep the records of these individuals for at least 2 years after they have ceased employment with the AMO or after withdrawal of their authorization. Upon request, a certifying person shall be furnished with a copy of his or her record on leaving the AMO.

(g) Authorized persons, apart from the AMO's quality department or continuing airworthiness supervisors/managers, include the Authority.

IS: 6.5.1.1 AMO PROCEDURES MANUAL

(a) The AMO procedures manual shall contain the following content.

1.0 General:

1.1 A general description of the scope of work authorized under the organization's terms of approval;

1.2 A description of the organization's procedures and quality assurance programme or inspection system in accordance with 6.5.1.2 of this part.

1.3 A general description of the organization's facilities;

1.4 the names, tasks, duties and responsibilities of the person or persons required to ensure the maintenance organization is in compliance with the regulations of Curaçao;

1.5 A description of the procedures used to establish the competence of maintenance personnel as required by 6.5.1.2 and 6.4.1.3 of this part;

1.6 A description of the method used for the completion and retention of the *continuing airworthiness records* required by 6.5.1.8 of this part.

1.6.1 The records shall show that all requirements for signing of the maintenance release have been met.

1.6.2 The records shall be kept for a minimum period of one year after signing approval for return to service

1.7 A description of the procedure for preparing the approval for return to service and the circumstances under which it is to be signed;

1.8 The names of personnel authorized to sign the approval for return to service and the scope of their authorization. The person signing the approval for return to service shall be qualified in accordance with Part 2 of these regulations;

1.9 A description, when applicable, of the additional procedures for complying with an operator's maintenance procedures and requirements;

1.10 A description of the procedures with respect to aeroplanes and helicopters, whereby information on faults, malfunctions, defects, and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is transmitted to the organization responsible for the type design of that aircraft and to the operator's airworthiness authority.

1.11 A description of the procedure for receiving, assessing, amending, and distributing within the maintenance organization all necessary airworthiness data from the TC holder or type design organization;

1.12 If the manual is also used to comply with the requirements of the maintenance programme for an aircraft, a maintenance programme.

1.13 A description of the AMO's SMS, required by 6.4.1.6 and 1.6 of these regulations, with reference to a separate manual, or inclusion of the SMS practices within the AMO Procedures Manual

2.0 Management

2.1 A statement signed by the accountable manager confirming that the manual defines the organization's procedures and associated personnel responsibilities and will be complied with at all times;

2.2 An organization chart showing the associated chains of responsibility of the person or persons nominated to ensure the organization is in compliance with the applicable regulations.

2.3 Procedures for notifying the Authority regarding changes to the organization's activities, approval, location, or personnel;

2.4 liaison or contractual arrangements with other organizations that provide services associated with the approval; and

2.5 Procedures for amending the manual.

3.0 Maintenance Procedures

3.1 Supplier evaluation procedure;

3.2 Acceptance/inspection of aeronautical products, including materials from outside contractors;

3.3 Storage, labelling/tagging, and release of aeronautical products and materials to aircraft maintenance;

3.4 acceptance of tools and equipment;

3.5 Calibration of tools and equipment, including alternate tools;

3.6 Use of tools and equipment by personnel (including alternate tools);

3.7 Cleanliness standards of maintenance facilities;

3.8 Maintenance instructions and relationship to aircraft or aeronautical product manufacturers' service information, including updating and availability to personnel;

3.9 Repair procedures;

3.10 Procedures for compliance with an operator's maintenance programme;

3.11 AD procedures;

3.12 Mandatory continuing airworthiness information handling procedures

3.13 Optional modification procedures;

3.14 Maintenance documentation in use and completion of same;

3.15 Technical record control;

3.16 Procedures for handling of defects arising during maintenance;

3.17 Issue of the approval for return to service required by 6.5.1.7 of this part

3.18 Records for the operator (if the organization is not an operator itself);

3.19 Reporting of defects and other occurrences as required by the Authority;

3.20 Return of defective aeronautical products to store;

3.21 Control of defective aeronautical products sent to outside contractors for overhaul, etc.;

3.22 Control of computer maintenance record systems;

3.23 Reference to specific maintenance procedures such as engine running procedures, aircraft pressure run procedures, aircraft towing procedures; and aircraft taxiing procedures;

3.24 Contract/subcontract procedures;

3.25 Human factors.

3.26 Procedures that designate the individual responsible for briefing the arriving shift's supervisors and personnel of the exact status of in-progress maintenance.

3.27 Rest and duty limitations for persons performing maintenance functions

3.28 Line maintenance procedures (when applicable)

3.28.1 Control of aircraft components, tools, equipment, etc.;

3.28.2 Procedures related to servicing, fueling, de-icing, etc.;

3.28.3 Control of defects and repetitive defects;

3.28.4 Pooled parts and loan parts; and

3.28.5 Return of defective parts removed from aircraft.

3.29 Inspection procedures, appropriate to the ratings sought, for:

3.29.1 **Incoming inspections.** A system or method for the inspection of incoming aeronautical products and/or materials, including the inspection of:

(a) New aeronautical products and/or materials received from the manufacturer for:

(1) Shipping damage;

(2) Traceability of life limits, if applicable; and

(3) Identification and tagging of parts to manufacturer's invoices.

(b) Overhauled or repaired parts from an approved agency for:

(1) Shipping damage;

(2) Traceability of life limits, if applicable; and

(3) Traceability of overhaul records and/or AATs.

© Items sent out for contracted maintenance functions for:

(1) Shipping damage; and

(2) Conformity to the Authority's and the manufacturer's specifications, including material type and state of preservation.

(d) Items of unknown origin for.

(1) Shipping damage;

(2) Conformity to the Authority's and the manufacturer's specifications, drawings, or dimensions, including material type and state of preservation;

(3) Airworthiness status, including ADs and traceability of life limits, if applicable; and

(4) Functional tests, as applicable.

3.29.2 Preliminary inspections. A system or method for the preliminary inspection of aeronautical products to be repaired for.

(a) State of preservation;

(b) Functional operation prior to disassembly, if applicable;

© Traceability of life limits and/or time since overhaul, if applicable; and

(d) Identification and tagging of parts to manufacturer's invoices.

3.29.3 Hidden damage inspections. A system or method for inspecting damaged parts for hidden damage that ensures items are disassembled as necessary and inspected for hidden damage in adjacent areas

3.29.4 Progressive inspections. A system or method of inspection, testing, and/or calibration during and after disassembly and at various stages while work is in progress.

3.29.5 Final inspections. A system or method for final inspection, testing, and/or calibration of units when work is completed.

4.0 Quality Assurance Programme or Inspection System

4.1 Quality audit of organization procedures;

4.2 Quality audit of aircraft;

4.3 Quality audit findings.

4.4 Remedial action procedures.

4.5 Qualification and training procedures for certifying staff issuing an approval for return to service.

4.6 Records of certifying staff;

4.7 Qualification and training procedures for quality audit personnel;

4.8 Qualification and training procedures for mechanics;

4.9 Exemption process control;

4.10 Concession control for deviation from the organization's procedures;

4.11 Qualification procedure for specialized activities such as non-destructive testing NDT, welding, etc.;

4.12 When required, control of the manufacturer's working teams based at the premises of the organization, engaged in tasks that interface with activities included in the approval

4.13 quality audit of sub-contractors (or acceptance of accreditation by third parties, e.g. use of NDT organizations approved by a State regulatory body other than the airworthiness authority).

4.14 Quality assurance audit procedures, including the following principal audit checks:

4.14.1 Checks on aircraft while undergoing scheduled maintenance for:

(a) Compliance with maintenance programme and mandatory continuing airworthiness requirements and ensuring that only work instructions reflecting the latest amendment standards are used;

(b) Completion of work instructions, including the transfer of defects to additional worksheets, their control, and final collation; action taken with respect to items carried forward and/or not completed during the particular inspection or maintenance task;

(c) Compliance with the manufacturer's AMM and the organization's procedures;

(d) Standards of inspection and workmanship;

(e) The condition of corrosion prevention and control treatments and other protective processes,

(f) Aircraft maintenance which is not limited to the normal working day; procedures adopted during shift changeover of personnel to ensure continuity of inspection and responses; and

(g) Precautions taken to ensure that, on completion of any work or maintenance, all aircraft are checked for loose tools and miscellaneous small items such as split pins, wire, rivets, nuts, bolts, and other debris, and for general cleanliness and housekeeping.

4.14.2 Checks on airworthiness data for.

(a) Adequacy of aircraft manuals and other technical information appropriate to each aircraft type, including aeronautical products and other equipment, and the continuing receipt of revisions and amendments and availability of continuing airworthiness data (e.g., ADs, life limits);

(b) Assessment of the manufacturer's service information, determining its application to aircraft types maintained-and the recording of compliance or embodiment;

(c) Maintenance of a register of manuals and technical literature held within the organization, with their locations and current amendment status; and

(d) Assurance that all the organization's manuals and documents, both technical and procedural, are kept up-to-date.

4.14.3 Checks on stores and storage procedures for.

(a) Adequacy of stores and storage conditions for rotatable products, small parts, perishable items, flammable fluids, engines, and bulky assemblies in accordance with the specifications adopted by the organization;

(b) Adequacy of stores and storage conditions for rotatable products, small parts, perishable items, flammable fluids, engines, and bulky assemblies in accordance with the specifications adopted by the organization;

(c) The "batch recording" of goods received and identification of raw materials, the acceptance of part life items into stores, and the requisition procedures for the issue of items from stores; and

(d) Labelling procedures, including:

(1) The use of serviceable/unserviceable/ repairable labels and their certification and final disposal after installation;

(2) The internal release procedure to be used when components are to be forwarded to other locations within the organization;

(3) The procedure to be adopted for the release of goods or overhauled items to other organizations (should also cover items being sent away for rectification or calibration);

(4) The procedure for the requisitioning of tools together with the system for ensuring that the location of tools and their calibration and continuing airworthiness status are known at all times; and

(5) Control of shelf life and storage conditions of stores, control of the free issue dispensing of standard parts, identification, and segregation

4.14.4 Checks on continuing airworthiness facilities for:

(a) Cleanliness; state of repair; correct functioning of hangars, hangar facilities, and special equipment; and the continuing airworthiness of mobile equipment

(b) Adequacy and functioning of special services and techniques, including welding, NDI, weighing, and painting;

(c) Viewer/printer equipment provided for use with electronic media ensuring that regular continuing airworthiness takes place and an acceptable standard of screen reproduction and printed copy is achieved;

(d) Adequacy of special tools and equipment appropriate to each type of aircraft, including aeronautical products and other equipment; and

(e) Calibration and continuing airworthiness of tools and measuring equipment; and environmental controls.

4.15.5 Checks on the AMO's general airworthiness control procedures for:

(a) Monitoring of the practices of the organization with respect to scheduling or preplanning continuing airworthiness tasks to be performed in the open air, and the adequacy of the facilities provided;

(b) Operation of the system for service difficulty reporting required by the Authority;

(c) Authorization of personnel to issue an approval for return to service with respect to inspections and continuing airworthiness tasks and the effectiveness and adequacy of training, including continuation training and the recording of personnel experience, training, and qualifications for grant of authorization;

(d) The effectiveness of technical instructions issued to continuing airworthiness personnel, including:

(1) Adequacy of personnel in terms of qualifications, numbers, and ability in all areas required to support the activities included in the approval granted by the airworthiness authority;

(2) Efficacy and completeness of the quality assurance programme;

(3) Maintaining logbooks and other required records and confirming that these documents are assessed in accordance with the requirements of Curaçao;

(4) Ensuring that repairs are performed only in accordance with approved repair schemes and practices;

(5) Control of subcontractors;

(6) Control of activities subcontracted, such as management of the operator's continuing airworthiness programme;

(7) Monitoring of exemption process control and concession control for deviation from the organization's procedures; and

(8) Follow-up on internal reporting/occurrences.

5.0 System of Standard Forms and Documents

5.1 Introduction.

5.1.1 An AMO shall develop a system of standard forms and documents that it intends to utilize, including forms and documents for functions associated with activities undertaken under the terms, conditions, and limitations of the approval, such as:

(a) Daily maintenance;

(b) Line maintenance;

(c) Contract continuing airworthiness;

(d) Work performed at another location;

(e) Work performed for an air operator;

(f) Major modification and repair of aeronautical products;

(g) Approval for return to service after major repairs;

(h) Inspections and in-progress continuing airworthiness;

(i) Corrective actions; and

(j) Technical record control.

5.2 Examples of forms and documents.

5.2.1 The AMO Procedures Manual shall include examples of standard forms and documents, instructions for completing the forms, and procedures for retaining the forms and documents.

5.2.2 The instructions for completing a form may be on the form or in a separate document.

5.2.3 The number and content of the forms may depend on the size and complexity of the organization and the variety of aircraft and aeronautical products for which ratings are issued.

5.2.4 Revisions or additions to the forms section of the AMO Procedures Manual shall follow the documented revision procedures.

5.2.5 The AMO Procedures Manual may refer to a separate document of forms that provides samples of the forms with instructions.

5.2.6 The forms included in the manual shall be samples of each form, tag, and label described in the procedures within the AMO Procedures Manual, such as a.

(a) Work order;

(b) Discrepancy log;

(c) Record of employee training;

(d) Calibration report;

(e) Approval for return to service;

(f) Mechanical reliability report; and

(g) Malfunction and defect report.

IS: 6.5.1.7 AIRWOTHINESS APPROVAL TAG (CCAA FORM 1)

APPROVAL FOR RETURN TO SERVICE OF AN AIRCRAFT OR AERONAUTICAL PRODUCT

(b) The following form shall be used when an AMO approves an aeronautical product for return to service.

<table>
<tr><td colspan="2"> 
CCAA / Curaçao</td><td colspan="4">2. Approval for Return to Service
CCAA Form 1
Airworthiness Approval Tag</td><td colspan="2">3. System tracking ref. number:</td></tr>
<tr><td colspan="6">4. Organization name and address:</td><td colspan="2">5. Work order, contract, or invoice number:</td></tr>
<tr><td>6. Item:</td><td>7. Description:</td><td>8. Part number:</td><td>9. Eligibility:
(Installer shall check eligibility with applicable technical data)</td><td>10. Quantity:</td><td>11. Serial/ batch number:</td><td>12. Status/ work:</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7">13. Remarks:</td></tr>
<tr><td colspan="3">14. Certifies that the items identified above were manufactured in conformity to:
☐ Approved design data and are in condition for safe operation
☐ Non-approved design data as specified in block 13</td><td colspan="4">19. Certifies that unless otherwise specified in block 13 (or attached), the work identified in block 12 and described in block 13 was accomplished in accordance with CCAA airworthiness regulations and, with respect to that work, the item(s) is (are) approved for return to service.
☐ 5.6.1.3, Return to Service
☐ Other regulation specified in block 13</td></tr>
<tr><td colspan="2">15. Authorized signature:</td><td>16. Approval/authorization number:</td><td colspan="2">20. Authorized signature:</td><td colspan="2">21. Approval/certificate number:</td></tr>
<tr><td colspan="2">17. Name (typed or printed):</td><td>18. Date (dd/mm/yyyy):</td><td colspan="2">22. Name (typed or printed):</td><td colspan="2">23. Date (dd/mm/yyyy):</td></tr>
</table>

CCAA Form 1

Instructions for Completion of an Approval for Return to Service and/or Airworthiness Approval Tag

Block 1. [STATE] (pre-printed).

Block 2. Approval for Return to Service/Airworthiness Approval Tag (pre-printed).

Block 3. System tracking reference number.

(c) Fill in the unique number established by the Authority-approved numbering system.

(d) If the form is computer generated, it may be produced as programmed by the computer.

Note: Shippers shall establish a numbering system for traceability in order to fill out block 3 of the form. This system shall also provide a means of cross referencing the number(s) and product(s) being shipped.

Block 4. Organization name and address. Fill in the full name and address of the organization.

Block 5. Work order, contract, or invoice number.

(e) Fill in the contract, work order, or invoice number related to the shipment list or approval for return to service and state the number of pages attached to the form, including dates, if applicable. If the shipment list contains the information required in blocks 6 through 12, the respective blocks may be left blank if an original, or true copy, of the list is attached to the form. In this case, the following statement shall be entered in block 13: "This is the certification statement for the aeronautical products listed on the attached document dated _____, containing pages _____ through _____."

(f) In addition, the shipment list shall cross reference the number located in block 3. The shipment list may contain more than one item, but it is the responsibility of the shipper to determine whether the Authority of the importing jurisdiction will accept bulk shipments under a single AAT. If the Authority does not permit bulk shipments under a single form, blocks 6 through 12 of each form shall be filled in for each product shipped.

Block 6. Item. When the AAT is issued, a single item number or multiple item numbers may be used for the same product number. Multiple items shall be numbered in sequence. If a separate listing is used, enter "List Attached."

Note: The blank form may be computer generated. However, the format shall not be changed, nor may any words be added or deleted. Pre-printing of some information is permissible (e.g., the information in blocks 1, 2, 3, 4, and 19). The size of the blocks may be varied slightly, but the form shall remain readily recognizable. The form may also be reduced in overall size.

Block 7. Description. Enter the name or description of the product/part as shown on the design data. For products/parts that do not have design data available, the name as referenced in a product catalogue, overhaul manual, etc., may be used.

Block 8. Part number. Enter each part number of the product.

Block 9. Eligibility. State the aircraft or aeronautical product make and model on which the parts manufacture approval is eligible for installation. If a part is eligible for installation on more than one model, enter the words "to be verified by installer" or "TBV by installer." Where parts are TSO aeronautical products, state "TSO Aeronautical Product N/A" since eligibility for installation for TSO aeronautical products is determined at the time of installation.

Note: For TSO aeronautical products, the AAT does not constitute authority to install an aeronautical product on a particular aircraft. The user or installer is responsible for confirming that the product is eligible for installation by reference to overhaul manuals, service bulletins, etc., as applicable.

Block 10. Quantity. State the quantity of each aeronautical product shipped.

Block 11. Serial/batch number. State the serial number or equivalent (identified on the product) on the form for each aeronautical product shipped. If a serial number or equivalent is not required on the part, enter "N/A."

Block 12. Status/work. Enter "Newly overhauled" for those products that have not been operated or placed in service since overhaul. Enter "Prototype" for products/parts submitted to support type certification programmes. Other permissible/appropriate terms to describe the status of the product/part include: "Inspected," "Repaired," "Overhauled," or "Modified."

Block 13. Remarks. Enter any information or references to support documentation necessary for the user or installer to make a final determination of airworthiness of the aeronautical products listed in block 7. Each statement shall specify which item identified in block 6 is related. Examples of the type of information to be supplied are as follows:

(g) Any restrictions (e.g., prototype only).

(h) Alternative approved part number.

(i) Compliance or non-compliance with ADs or SBs.

(j) Information on life-limited parts.

(k) Manufacturing, cure, or shelf-life data.

(l) Drawing and revision level.

(m) When used for conformity, the word "CONFORMITY" shall be entered in capital letters. In addition, an explanation of the product's/part's use (e.g., pending approved data, TC pending, for test only) should be provided. Information concerning a conformity inspection such as design data, revision level, date, project number, and special instructions shall be included in this block.

(n) When used for spare parts, identify whether the parts are from the original manufacturer or another approved source and are made to the TSO. In addition, if the AAT is for spare parts or subcomponents of a CAA-approved replacement part, the TSO authorization should be listed in block 13.

(o) When used for return to service, this block should contain the data required by 5.6.1.2 of the aviation regulations.

Blocks 14, 15, 16, 17 and 18. These blocks shall not be used for maintenance tasks by AMOs certificated under Part 6 of the aviation regulations. These blocks are specifically reserved for return/certification of newly manufactured items in accordance with certification procedures of products and parts of the State of Design or State of Manufacture.

Block 19. Return to service. The information is pre-printed in the block.

Block 20. Authorized signature. The signature of the individual authorized by the air agency, the air operator, or the manufacturer shall be entered in accordance with 5.6.1.1 of the aviation regulations. The approval signature shall be manually applied at the time and place of issuance.

Block 21. Approval/certificate number. Enter the AMO certificate or AOC number. For manufacturers returning to service after overhauling aeronautical products, the production approval number shall be entered.

Block 22. Name. Enter the typed or printed name of the individual identified in block 20.

Block 23. Date. Enter the date the approval for return to service is signed and the product is returned to service. This does not need to be the same as the shipping date, which may occur at a later date.

IS: 6.5.1.9 AIRWORTHINESS DATA- INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

(a) The AMO shall be in receipt of all airworthiness data appropriate to support the work performed from the Authority, the aircraft or aeronautical product design organization, and any other approved design organization in the State of Manufacture or State of Design, as appropriate. Some examples of airworthiness-related documents are:

(b) Applicable Aviation regulations.

(1) Associated advisory material.

(2) ADs.

(3) The manufacturers' AMM.

(4) Repair manuals.

(5) Supplementary structural inspection documents.

(6) SBs.

(7) Service letters.

(8) Service instructions.

(9) Modification leaflets.

(10) The aircraft continuing airworthiness programme; and.

(11) The NDT Manual.

(c) Paragraph 6.5.1.9(a) primarily refers to maintenance data that has been transcribed from the Authority and all TC holders into the AMO's format, such as customized maintenance cards or computer-based data.

(d) To obtain acceptance from the Authority, it quires that accuracy of transcription is assured.

(e) A procedure shall be established to monitor the amendment status of all data, and to maintain a check that all amendments are being received, by subscribing to any document amendment scheme.

(f) Airworthiness data shall be made available in the work area in close proximity to the aircraft or aeronautical product being maintained for supervisors, mechanics, and certifying staff to study.

(g) Where computer systems are used to maintain airworthiness data, the number of computer terminals shall be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.

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CURAÇAO CIVIL AVIATION REGULATIONS

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PART 7 – INSTRUMENTS AND EQUIPMENT

7.1 GENERAL

Note: The requirements of this part are written such that approvals are granted to AOC holders through operations specifications, and approvals are granted to non-AOC holders, such as general aviation operators, through letters of authorisation.

7.1.1.1 APPLICABILITY

(a) This part prescribes the minimum instrument and equipment requirements for all aircraft in all operations.

(b) The requirements of this part use the following key designators:

(1) AAC. All aircraft – non-AOC holders and AOC holders appropriate to the subject of the regulations, e.g., an AAC regulation may only refer to seaplanes but will include seaplanes operated by non-AOC holders and AOC seaplanes.

(2) AOC. AOC holders are operators engaged in commercial air transport. Where AOC requirements are more detailed, the AOC requirements will be followed.

7.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

7.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AAC –** all aircraft

(2) **ACAS –** airborne collision avoidance system

(3) **AED –** automated external defibrillator

(4) **ADF –** automatic direction finder

(5) **ADFR –** automatic deployable flight recorder

(6) **ADRS –** aircraft data recording system

(7) **AFM –** Aircraft Flight Manual

(8) **AIR –** airborne image recorder

(9) **AIRS –** airborne image recording system

(10) **AOC –** air operator certificate

(11) **ASE –** altimetry system error

(12) **ATS –** air traffic service(s)

(13) **CARS –** cockpit audio recording system

(14) **CAT I –** Category I

(15) **CAT II –** Category II

(16) **CAT III –** Category III

(17) **CG –** centre of gravity

(18) **CVR –** cockpit voice recorder

(19) **CVS –** combined vision system

(20) **DH –** decision height

(21) **DLC –** data link communications

(22) **DLR –** data-link recorder

(23) **DLRS –** data-link recording system

(24) **DME –** distance measuring equipment

(25) **EASA –** European Union Aviation Safety Agency

(26) **ECAM –** electronic centralised aircraft monitor

(27) **EFB –** electronic flight bag

(28) **EFIS –** electronic flight instrument systems

(29) **EICAS –** engine indication and crew alerting system

(30) **ELT –** emergency locator transmitter

(31) **EUROCAE –** European Organisation for Civil Aviation Equipment

(32) **EVS –** enhanced vision system

(33) **FDR –** flight data recorder

(34) **FL –** flight level

(35) **GPWS –** ground proximity warning system

(36) **HUD –** head-up display

(37) **ICAO –** International Civil Aviation Organization

(38) **IFR –** instrument flight rules

(39) **ILS –** instrument landing system

(40) **IMC –** instrument meteorological conditions

(41) **LRNS –** long-range navigation system

(42) **MEL –** minimum equipment list

(43) **MHz –** megahertz

(44) **MLS –** microwave landing system

(45) **MNPS –** minimum navigation performance specifications

(46) **OM –** Operations Manual

(47) **PBC –** performance-based communication

(48) **PBCS –** performance-based communication and surveillance

(49) **PBE –** protective breathing equipment

(50) **PBN –** performance-based navigation

(51) **PBS –** performance-based surveillance

(52) **PIC –** pilot-in-command

(53) **RCP –** required communication performance

(54) **RNAV –** area navigation

(55) **RSP –** required surveillance programme

(56) **RTCA –** Radio Technical Commission for Aeronautics

(57) **RVR –** runway visual range

(58) **RVSM –** reduced vertical separation minimum

(59) **SARPs –** Standards and Recommended Practices

(60) **STPD –** Standard Temperature Pressure Dry

(61) **SVS –** synthetic vision system

(62) **TAWS –** terrain awareness warning system

(63) **TC –** type certificate

(64) **TVE** – total vertical error

(65) **VFR –** visual flight rules

(66) **VOR –** VHF omnidirectional radio range

7.1.1.4 GENERAL INSTRUMENT AND EQUIPMENT REQUIREMENTS

(a) [AAC] In addition to the minimum equipment necessary for the issuance of a certificate of airworthiness, the instruments, equipment, and flight documents prescribed in this part shall be installed or carried, as appropriate, in aircraft according to the aircraft used and to the circumstances under which the flight is to be conducted.

(b) [AAC] All required instruments and equipment shall be approved and installed in accordance with applicable airworthiness requirements.

(c) [AAC] Prior to operation in Curaçao of any aircraft that is not registered in Curaçao and that uses an airworthiness inspection programme approved or accepted by the State of Registry, the owner or operator shall ensure that instruments and equipment required by Curaçao but not installed in the aircraft are properly installed and inspected in accordance with the requirements of the State of Registry.

(d) [AOC] No person shall commence a flight in commercial air transport operations unless the required equipment:

(1) Meets the minimum performance standard, all operational and airworthiness requirements, and the relevant provisions of ICAO Annex 10, Volume IV;

(2) Is installed such that the failure of any single unit required for either communication or navigation purposes, or both, will not result in the inability to communicate and/or navigate safely on the route being flown; and

(3) Is in operable condition for the type of operation being conducted, except as provided in the MEL.

(e) [AAC] If equipment is to be used by one flight crew member at that flight crew member's station during flight, it shall be installed so as to be readily operable from that flight crew member's station.

(f) [AAC] When a single item of equipment is required to be operated by more than one flight crew member, it shall be installed so that the equipment is readily operable from any station at which the equipment is required to be operated.

7.2 FLIGHT INSTRUMENTS

7.2.1.1 GENERAL REQUIREMENTS

(a) [AAC] All aircraft shall be equipped with flight instruments that enable the flight crew to:

(1) Control the flight path of the aircraft;

(2) Carry out any required procedural manoeuvres; and

(3) Observe the operating limitations of the aircraft in the expected operating conditions.

(b) [AAC] When a means is provided for transferring an instrument from its primary operating system to an alternative system, the means shall include a positive positioning control and shall be marked to indicate clearly which system is being used.

(c) [AAC] Those instruments that are used by any one pilot shall be so arranged as to permit the pilot to see the indications readily from either pilot station, with the minimum practicable deviation from the position and line of vision the pilot normally assumes when looking forward along the flight path.

7.2.1.2 MINIMUM FLIGHT INSTRUMENTS

(a) [AAC] No person may operate any powered aircraft unless the aircraft is equipped with the following flight instruments:

(1) An airspeed indicating system calibrated in knots, miles per hour, or kilometers per hour;

(2) A sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight;

(3) An accurate timepiece indicating time in hours, minutes, and seconds;

(i) For non-AOC operations, either equipage or carriage is acceptable;

(4) A magnetic compass; and

(5) Any other equipment as prescribed by the Authority.

Note: This applies to both VFR and IFR operations in addition to the requirements for IFR operations prescribed elsewhere in this part.

(b) [AAC] No person may operate an aircraft in VFR flight as a controlled flight unless the aircraft is equipped with the instruments required by 7.2.1.4 of this part.

7.2.1.3 INSTRUMENTS FOR OPERATIONS REQUIRING TWO PILOTS IN DAY VISUAL FLIGHT RULES

(a) [AOC] Whenever two pilots are required, each pilot's station shall have separate flight instruments as follows:

(1) An airspeed indicating system calibrated in knots, miles per hour, or kilometers per hour;

(2) A sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight;

(3) A vertical speed indicator;

(4) A turn and slip indicator, or a turn coordinator incorporating a slip indicator;

(5) An attitude indicator;

(6) A stabilised direction indicator; and

(7) Any other equipment as required by the Authority.

7.2.1.4 INSTRUMENTS REQUIRED FOR INSTRUMENT FLIGHT RULES OPERATIONS

(a) [AAC] All aircraft when operated in IFR, or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:

(1) A means of measuring and displaying:

(i) Magnetic heading (standby compass);

(ii) The time in hours, minutes, and seconds;

(A) For non-AOC operations, either equipage or carriage is acceptable;

(iii) Barometric altitude;

(iv) Indicated airspeed, with a means of preventing malfunctioning due to either condensation or icing;

(v) Turn and slip;

(vi) Aircraft attitude;

(vii) Stabilised aircraft heading;

Note: The requirements of paragraphs 7.2.1.4(a)(v), (vi), and (vii) of this subsection may be met by combinations of instruments or by integrated flight director systems, provided that the safeguards against total failure, inherent in the three separate instruments, are retained.

(viii) Whether the supply of power to the gyroscopic instruments is adequate;

(ix) Outside air temperature; and

(x) Rate-of-climb and descent.

(2) In addition, aeroplanes with a maximum certificated take-off mass of over 5 700 kg or equipped with one or more turbojet engines shall be equipped with:

(i) An emergency power supply for electrically operated attitude indicating instruments:

(A) Independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the PIC; and

(B) Automatically operative after the total failure of the main electrical generating system and clear indication given on the instrument panel that the attitude indicator(s) is being operated by emergency power;

(ii) For aeroplanes with advanced flight deck automation systems (glass flight decks), system redundancy that provides the flight crew with attitude, heading, airspeed, and altitude indications in case of failure of the primary system or display; and

(iii) Such additional instruments or equipment as may be prescribed by the Authority.

(b) [AOC] All aircraft when operated in IFR, or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:

(1) For all aeroplanes:

(i) A magnetic compass;

(ii) An accurate timepiece indicating the time in hours, minutes, and seconds;

(iii) Two sensitive pressure altimeters with counter drum-pointer or equivalent presentation;

Note: Neither three-pointer nor drum-pointer altimeters satisfy this requirement.

(iv) An airspeed indicating system with a means of preventing malfunctioning due to either condensation or icing;

(v) A turn and slip indicator aeroplanes or a slip indicator for helicopters;

(vi) Attitude indicator (artificial horizon);

(vii) A heading indicator (directional gyroscope);

Note: The requirements of paragraphs 7.2.1.4(b)(v), (vi), and (vii) of this subsection may be met by combinations of instruments or by integrated flight director systems provided that the safeguards against total failure, inherent in the separate instruments are retained.

(viii) A means of indicating whether the supply of power to the gyroscopic instruments is adequate;

(ix) A means of indicating in the flight crew compartment the outside air temperature; and

(x) A rate-of-climb and descent indicator; and

(2) In addition, aeroplanes with a maximum certificated take-off mass exceeding 5 700 kg or equipped with one or more turbojet engines shall be equipped with:

(i) An emergency power supply for electrically operated attitude indicating instruments;

(ii) Independent of the main electrical generating system for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the PIC, and

(iii) Automatically operative after the total failure of the main electrical generating system and clear indication given on the instrument panel that the attitude indicator(s) is being operated by emergency power; and

(iv) Such additional instruments or equipment as may be prescribed by the Authority.

(c) [AOC] No person may operate an aeroplane under IFR, or under VFR over routes that cannot be navigated by reference to visual landmarks, unless the aeroplane is equipped with navigation equipment in accordance with the requirements of ATS in the area(s) of operation.

(1) [AOC] No person may conduct single-pilot IFR operations unless the aeroplane is equipped with an autopilot with at least altitude hold and heading mode.

(2) [AAC] No person may operate an aeroplane under IFR unless the aeroplane is equipped with an audio selector panel accessible to each required flight crew member.

(3) [AOC] No person may conduct single-pilot IFR or night operations in commercial air transport operations unless the aeroplane is equipped with a headset with boom microphone or equivalent and a transmit button on the control wheel.

(d) [AAC] All helicopters, unless otherwise indicated, when operated in IFR or when the helicopter cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:

(1) For all helicopters:

(i) A magnetic compass;

(ii) The time in hours, minutes, and seconds;

(A) For non-AOC operations, either equipage or carriage is acceptable;

(iii) A pressure altimeter:

(A) [AAC] A sensitive pressure altimeter;

(B) [AOC] Two sensitive pressure altimeters;

Note: Due to the long history of misreadings, the use of drum-pointer altimeters is not recommended.

(iv) An airspeed indicating system with a means of preventing malfunctioning due to either condensation or icing;

(v) A slip indicator;

(vi) Attitude indicator (artificial horizon) for each required pilot and one additional attitude indicator;

(vii) A heading indicator (directional gyroscope);

(viii) A means of indicating whether the supply of power to the gyroscopic instruments is adequate;

(ix) A means of indicating on the flight deck the outside air temperature;

(x) A rate-of-climb and descent indicator;

(xi) A stabilisation system, unless it has been demonstrated to the satisfaction of the Authority that the helicopter possesses, by nature of its design, adequate stability without such a system;

(2) [AOC] An emergency power supply for electrically operated attitude indicating instruments:

(i) Independent of the main electrical generating system for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the PIC; and

(ii) Automatically operative after the total failure of the main electrical generating system and clear indication given on the instrument panel that the attitude indicator(s) is being operated by emergency power; and

(3) Such additional instruments or equipment as may be prescribed by the Authority.

Note: A helicopter, when operating in accordance with IFR and having a maximum certificated take-off mass in excess of 3 175 kg or a maximum passenger seating configuration of more than nine, should be equipped with a GPWS that has a forward-looking terrain avoidance function.

7.2.1.5 INSTRUMENTS FOR OPERATION AT NIGHT

(a) [AAC] No person may operate an aeroplane at night unless the aeroplane is equipped with the following:

(1) The instruments specified in 7.2.1.4 of this part appropriate to the aircraft and operation; and

(2) The lights specified in 7.5 of this part.

(b) [AOC] No person may operate an aeroplane at night unless the aeroplane is equipped with the following:

(1) The instruments specified in 7.2.1.4 of this part appropriate to the aircraft and operation; and

(2) The lights specified in 7.5 of this part.

(c) [AAC] No person may operate a helicopter at night unless the helicopter is equipped with the following:

(1) The instruments specified in 7.2.1.4 of this part appropriate to the aircraft and operation;

(2) An attitude indicator (artificial horizon) for each required pilot;

(3) A slip indicator;

(4) A heading indicator (directional gyroscope);

(5) A rate of climb and descent indicator;

(6) The lights specified in 7.5 of this part; and

(7) Such additional instruments or equipment as may be prescribed by the Authority.

7.2.1.6 STANDBY ATTITUDE INDICATOR

(a) [AAC] No person may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg or a performance Class 1 or 2 helicopter unless that aeroplane or helicopter is equipped with a single standby attitude indicator (artificial horizon) that:

(1) Operates independently of any other attitude indicating system;

(2) Is powered continuously during normal operation; and

(3) After a total failure of the normal electrical generating system is automatically powered for a minimum of 30 minutes from a source independent of the normal electrical generating system.

(b) [AAC] When the standby attitude indicator is being operated by emergency power, it shall be clearly operating and illuminated to the flight crew.

(c) [AAC] Where the standby attitude indicator has its own dedicated power supply there shall be an associated indication, either on the instrument or on the instrument panel, when this supply is in use.

(d) [AAC] If the standby attitude instrument system is installed and usable through flight attitudes of 360 degrees of pitch and roll, the turn and slip indicators may be replaced by slip indicators.

7.2.1.7 INSTRUMENTS AND EQUIPMENT FOR CATEGORY II OPERATIONS

(a) The instruments and equipment listed in this subsection shall be installed, approved, and maintained in accordance with IS 7.2.1.7 for each aircraft operated in a CAT II operation:

Note: This subsection does not require duplication of instruments and equipment required by 7.2.1.2 or any other requirements of this part.

(1) Group I is comprised of the following equipment, which shall be inspected within 3 calendar months of the previous inspection and shall also have a bench inspection within 12 months of the previous bench inspection using procedures contained in the approved maintenance programme:

(i) Two localiser and glide slope receiving systems;

Note: Each system shall provide a basic ILS display and each side of the instrument panel shall have a basic ILS display. However, a single localiser antenna and a single glide slope antenna may be used.

(ii) A communications system that does not affect the operation of at least one of the ILS systems;

(iii) A marker beacon receiver that provides distinctive aural and visual indications of the outer and the middle markers;

(iv) Two gyroscopic pitch and bank indicating systems;

(v) Two gyroscopic direction indicating systems;

(vi) Two airspeed indicators;

(vii) Two sensitive altimeters adjustable for barometric pressure, having markings at 20-foot intervals and each having a placarded correction for altimeter scale error and for the wheel height of the aircraft;

(viii) One self-monitoring radio altimeter with dual display;

(ix) Two vertical speed indicators;

(x) A flight control guidance system that consists of either an automatic approach coupler or a flight director system; and

Note: A flight director system shall display computed information as steering command in relation to an ILS localiser and, on the same instrument, either computed information as pitch command in relation to an ILS glide slope or basic ILS glide slope information. An automatic approach coupler shall provide at least automatic steering in relation to an ILS localiser. The flight control guidance system may be operated from one of the receiving systems required by paragraph 7.2.1.7(a)(1)(i) of this subsection.

(xi) For CAT II operations with DHs below 150 feet, a radio altimeter is required.

(2) Group II is comprised of the following equipment, which shall be inspected within 12 months of the previous inspection using procedures contained in the approved maintenance programme and which, with the exception of the static system, does not require special maintenance procedures other than those necessary to retain the original approval condition:

(i) Warning systems for immediate detection by the pilot of system faults in the items listed in paragraphs 7.2.1.7(a)(1)(i), (iv), (v), and (x) of this subsection;

(ii) Dual controls;

(iii) An externally vented static pressure system with an alternate static pressure source;

(iv) A windshield wiper or equivalent means of providing adequate flight deck visibility for a safe visual transition by either pilot to touchdown and rollout; and

(v) A heat source for each airspeed system pitot tube installed or an equivalent means of preventing malfunctioning due to icing of the pitot system.

Note: See also ICAO Doc 9365, Manual of All-Weather Operations*, and the current edition of FAA AC 120-29,* Criteria for Approval of Category I and Category II Weather Minima for Approach.

7.2.1.8 INSTRUMENTS AND EQUIPMENT FOR CATEGORY III OPERATIONS

(a) The following instruments and equipment shall be installed, approved, and maintained in each aircraft operated in a CAT III operation, in accordance with acceptable international criteria and the AFM:

Note 1: This subsection does not require duplication of instruments and equipment required by 7.2.1.2, 7.2.1.7, or any other requirements of this part.

Note 2: Acceptable international criteria may include: ICAO Doc 9365, Manual of All-Weather Operations; the current edition of FAA AC 120-28; or JAR AWO.

(1) AIRBORNE SYSTEMS FOR CAT IIIA MINIMA NOT LESS THAN RVR 200 M (600 FT). The following equipment, in addition to the instruments and navigation equipment required by this part for IFR flight and CAT II operations, is the minimum aircraft equipment required for CAT IIIA operations:

(i) A redundant flight control or guidance system demonstrated in accordance with acceptable international criteria. Acceptable flight guidance or control systems include the following:

(A) A Fail Operational or Fail Passive automatic landing system at least to touchdown;

(B) A Fail Operational or Fail Passive manual flight guidance system providing suitable head-up or head-down command guidance, and suitable monitoring capability at least to touchdown;

(C) A hybrid system, using automatic landing capability as the primary means of landing at least to touchdown; or

(D) Another system that can provide an equivalent level of performance and safety.

(ii) An automatic throttle or automatic thrust control system that meets approved criteria as specified in the AFM. However, for operations with a 15 m (50 ft) DH, or for other operations that have been specifically evaluated, such as for engine inoperative landing capability, automatic throttles may not be required if it has been demonstrated that operations can be safely conducted, with an acceptable workload, without their use.

(iii) At least two independent navigation receivers/sensors providing lateral and vertical position or displacement information, typically with the first pilot's station receiving the information from one and the second pilot's station receiving the information from the other. The navigation receivers/sensors shall meet the criteria specified for CAT IIIA operations.

(iv) At least two approved radio altimeter systems that meet the performance criteria as specified in the AFM, typically with the first pilot's station receiving information from one and the second pilot's station receiving information from the other.

(v) Failure detection, annunciation, and warning capability, as determined acceptable by criteria in the AFM.

(vi) Missed approach guidance provided by one or more of the following means:

(A) Attitude displays that include calibrated pitch attitude markings, or a pre-established computed pitch command display;

(B) An approved flight path angle display; or

(C) An automatic or flight guidance go-around capability.

(vii) Suitable forward and side flight deck visibility for each pilot, as specified in the AFM.

(viii) Suitable windshield rain removal, ice protection, or defog capability, as specified in the AFM.

(2) AIRBORNE SYSTEMS FOR CAT IIIB MINIMA LESS THAN RVR 200 M (600 FT) BUT NOT LESS THAN RVR 125 M (400 FT). The following equipment, in addition to the instruments and navigation equipment required by this part for IFR flight and CAT II and

CAT IIIA operations, is the minimum aircraft equipment required for CAT IIIB operations:

(i) A redundant flight control or guidance system demonstrated in accordance with acceptable international criteria. Acceptable flight guidance or control systems include the following:

(A) A Fail Operational landing system with a Fail Operational or Fail Passive automatic rollout system;

(B) A Fail Passive landing system, limited to touchdown zone RVR not less than RVR 200 m (600 ft), with Fail Passive rollout provided automatically or by a flight guidance system providing suitable head-up or head-down guidance, and suitable monitoring capability;

(C) A Fail Operational hybrid automatic landing and rollout system with compatible manual flight guidance system, using automatic landing capability as the primary means of landing; or

(D) Another system that can provide an equivalent level of performance and safety.

(ii) An automatic throttle or automatic thrust control system that meets the appropriate criteria, as specified in the AFM. However, for operations with a 15 m (50 ft) DH, automatic throttles may not be required if it has been demonstrated that operations can safely be conducted, with an acceptable workload, without their use.

(iii) At least two independent navigation receivers/sensors providing lateral and vertical position or displacement information, typically with the first pilot's station receiving information from one and the second pilot's station receiving information from the other. The navigation receivers/sensors shall meet the criteria specified in the AFM.

(iv) At least two approved radio altimeter systems that meet the performance criteria outlined in the AFM, typically with the first pilot's station receiving information from one and the second pilot's station receiving information from the other.

(v) Failure detection, annunciation, and warning capability, as determined acceptable by the criteria in the AFM.

(vi) Missed approach guidance provided by one or more of the following means:

(A) Attitude displays that include calibrated pitch attitude markings, or a pre-established computed pitch command display;

(B) An approved flight path angle display; or

(C) An automatic or flight guidance go-around capability.

(vii) Suitable forward and side flight deck visibility for each pilot, as specified in the AFM.

(viii) Suitable windshield rain removal, ice protection, or defog capability, as specified in the AFM.

(3) AIRBORNE SYSTEMS FOR CAT IIIC MINIMA LESS THAN RVR 75 M (300 FT). The following equipment, in addition to the instruments and navigation equipment required by this part for IFR flight and CAT II, CAT IIIA, and CAT IIIB operations, is the minimum aircraft equipment required for CAT IIIC operations:

(i) A Fail Operational automatic flight control system, or a manual flight guidance system designed to meet Fail Operational system criteria, or a hybrid system in which both the Fail Passive automatic system and the monitored manual flight

guidance components provide approach and flare guidance to touchdown, and in combination provide full Fail Operational capability; and

(ii) A Fail Operational automatic, manual, or hybrid rollout control system.

Note: See also ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS)*, Volume II; ICAO Doc 9365,* Manual of All-Weather Operations; *and JAR AWO.*

7.2.1.9 AEROPLANES AND HELICOPTERS EQUIPPED WITH AUTOMATIC LANDING SYSTEMS, HEAD-UP DISPLAYS OR EQUIVALENT DISPLAYS, ENHANCED VISION SYSTEMS, SYNTHETIC VISION SYSTEMS, AND/OR COMBINED VISION SYSTEMS

(a) No person shall operate an aircraft equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS, CVS, or any combination of those systems into a hybrid system, unless the aircraft is approved by the Authority and is in accordance with the criteria for the safe operation of an aircraft established by the State of the Operator, which will ensure that:

(1) The equipment meets the appropriate airworthiness certification requirements;

(2) The operator/owner has carried out a safety risk assessment of the operations supported by the automatic landing systems, a HUD or equivalent displays, EVS, SVS, or CVS; and

(3) The operator/owner has established and documented the procedures for the use of, and the training requirements for, a HUD or equivalent displays, EVS, SVS, or CVS.

Note: Information regarding automatic landing systems and a HUD or equivalent displays, EVS, SVS, or CVS, is contained in ICAO Doc 9365, Manual of All-Weather Operations.

7.2.1.10 ELECTRONIC FLIGHT BAGS

(a) No person shall operate an EFB on board an aircraft unless the EFB is issued a specific approval by the State of the Operator in accordance with the appropriate airworthiness requirements and the criteria for the safe operation of an aircraft, which:

(1) Assess the EFB equipment and its associated installation hardware, including interaction with aircraft systems if applicable, to meet the appropriate airworthiness certification requirements;

(2) Assess the risks associated with the operations supported by the EFB function(s);

(3) Establish requirements for redundancy of the information (if appropriate) contained in and displayed by the EFB function(s);

(4) Establish and document procedures for the management of the EFB function(s), including any databases it may use; and

(5) Establish and document the procedures for the use of, and the training requirements for, the EFB function(s).

(b) No person shall operate an EFB on board an aircraft unless the PIC and/or operator/owner has ensured that the EFB does not affect the performance of the aircraft systems or equipment or the ability to operate the aircraft and has:

(1) Assessed the safety risk(s) associated with each EFB function;

(2) Established and documented the procedures for the use of, and the training requirements for, the device and each EFB function; and

(3) Ensured that, in the event of an EFB failure, sufficient information is readily available to the flight crew for the flight to be conducted safely.

Note 1: Guidance on EFB equipment, functions, and specific approval is contained in ICAO Doc 10020, Manual on Electronic Flight Bags (EFBs).

Note 2: Guidance on safety risk assessments is contained in ICAO Doc 9859, Safety Management Manual (SMM).

7.3 COMMUNICATION EQUIPMENT

7.3.1.1 RADIO EQUIPMENT

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with radio communication equipment required for the type of operation being conducted.

(b) [AAC] All aircraft operated in VFR as a controlled flight; in IFR; at night; as an extended flight over water; or over land designated by the Authority as especially difficult for search and rescue shall be equipped with radio communication equipment:

(1) Capable of conducting two-way communication at any time with ATS or aeronautical stations;

(2) Capable of conducting communications on those frequencies prescribed by the Authority;

(3) Capable of receiving meteorological information at any time during the flight;

(4) Capable of conducting communications on the aeronautical emergency frequency 121.5 MHz;

(5) Approved and installed in accordance with applicable requirements, including the minimum performance requirements;

(6) Installed such that the failure of any single unit required for communication will not result in the failure of another unit required for communication purposes; and

(7) Meeting any other requirements as prescribed by the Authority.

Note: The requirements in paragraphs 7.3.1.1(b)(1) through (3) of this subsection are considered fulfilled if the ability to conduct the communications specified therein is established during radio propagation conditions that are normal for the route.

(c) [AAC] For operations where communication equipment is required to meet an RCP specification for PBC, an aeroplane shall, in addition to the requirements in paragraphs 7.3.1.1(a) and (b) of this subsection:

(1) Be provided with communication equipment that will enable it to operate in accordance with the prescribed RCP specification;

(2) Have information relevant to the aircraft RCP specification capabilities listed in the AFM or other aircraft documentation approved by the Authority; and

(3) Have information relevant to the aircraft RCP specification capabilities included in the MEL.

Note: Information on the PBCS concept and guidance material on its implementation are contained in ICAO Doc 9869, Performance-based Communication and Surveillance (PBCS) Manual.

(d) [AAC] No person shall operate an aircraft without meeting the established criteria where an RCP specification for PBC has been prescribed by the Authority.

(e) [AAC] For operations where an RCP specification for PBC has been prescribed, the operator shall establish and document:

(1) Normal and abnormal procedures, including contingency procedures;

(2) Flight crew qualification and proficiency requirements, in accordance with appropriate RCP specifications;

(3) A training programme for relevant personnel consistent with the intended operations; and

(4) Appropriate maintenance procedures to ensure continuing airworthiness, in accordance with appropriate RCP specifications.

(f) [AAC] The operator shall ensure to provide the Authority in respect of those aircraft mentioned in paragraph 7.3.1.1(c) of this subsection, the following:

(1) Reports of observed communication performance issued by monitoring programmes established in accordance with ICAO Annex 11: 3.3.5.2; and

(2) Corrective action for individual aircraft, aircraft types, or operators identified in such reports as not complying with the RCP specification.

(g) [AOC] No person may operate an aircraft in commercial air transport operations, or as otherwise specified by the Authority, unless the aircraft is equipped with two independent radio communication systems, appropriate to the route and airspace used.

(h) [AAC] When more than one communication equipment unit is required, each unit shall be independent of the other unit(s) to the extent that a failure in any one unit will not result in the failure of any other.

7.3.1.2 FLIGHT CREW AND CREW MEMBER INTERPHONE SYSTEM FOR AEROPLANES

(a) [AOC] No person may operate an aeroplane in commercial air transport operations on which a flight crew of more than one is required unless the aeroplane is equipped with a flight crew interphone system, including headsets and microphones, not of a handheld type, for use by all members of the flight crew.

(b) [AOC] No person may operate an aeroplane in commercial air transport operations with a maximum certificated take-off mass of over 15 000 kg, or having an approved passenger seating capacity of 19 or more, or having a flight crew compartment door, unless the aeroplane is equipped with a crew member interphone system that:

(1) Operates independently of the public address system except for handsets, headsets, microphones, selector switches, and signalling devices;

(2) Provides a means of two-way communication between the flight crew compartment and each:

(i) Passenger compartment;

(ii) Galley located on other than a main passenger deck level; and

(iii) Remote crew compartment that is not on the passenger deck and is not easily accessible from a passenger compartment;

(3) Is readily accessible for use:

(i) From each of the required flight crew stations in the flight crew compartment; and

(ii) At required cabin crew member stations close to each separate or pair of floor-level emergency exits;

(4) Has an alerting system incorporating aural or visual signals for use by flight crew members to alert the cabin crew, and for use by cabin crew members to alert the flight crew in the event of suspicious activity or security breaches in the cabin;

(5) Has a means for the recipient of a call to determine whether it is a normal call or an emergency call; and

(6) When the aeroplane is on the ground, provides a means of two-way communication between ground personnel and at least two flight crew members.

7.3.1.3 PUBLIC ADDRESS SYSTEM

(a) [AOC] No AOC holder may operate a passenger-carrying aeroplane with a maximum approved passenger seating configuration of more than 19 unless a public address system is installed that:

(1) Operates independently of the interphone systems except for handsets, headsets, microphones, selector switches, and signalling devices;

(2) Is readily accessible for immediate use from each required flight crew member station;

(3) For each required floor-level passenger emergency exit that has an adjacent cabin crew seat, has a microphone that is readily accessible to the seated cabin crew member, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated cabin crew members;

(4) Is capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which its use is accessible; and

(5) Is audible and intelligible at all passenger seats, lavatories, and cabin crew seats and workstations.

(b) [AOC] No AOC holder may operate a passenger-carrying helicopter with a maximum approved passenger seating configuration of more than 19 unless a public address system is installed that:

(1) Operates independently of the interphone systems except for handsets, headsets, microphones, selector switches, and signalling devices;

(2) Is readily accessible for immediate use from each required flight crew member station;

(3) For each required floor-level passenger emergency exit that has an adjacent cabin crew seat, has a microphone that is readily accessible to the seated cabin crew member, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated cabin crew members;

(4) Is capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which its use is accessible;

(5) Is audible and intelligible at all passenger seats, lavatories, and cabin crew seats and workstations; and

(6) Following a total failure of the normal electrical generating system, provides reliable operation for a minimum of 10 minutes.

(c) [AOC] No AOC holder may operate a passenger-carrying helicopter with a maximum approved passenger seating configuration of more than 9 but less than 19 without a public address system installed unless:

(1) The helicopter is designed without a bulkhead between pilot and passengers; and

(2) The operator is able to demonstrate in a manner acceptable to the Authority that, when the helicopter is in flight, the pilot's voice is audible and intelligible at all passenger seats.

7.3.1.4 MICROPHONES

(a) EQUIPAGE. No person may operate the following aircraft or in the following conditions unless the aircraft is equipped with a boom or throat microphone available at each required flight crew member flight duty station:

(1) [AAC-Aeroplane] Any aeroplane in IFR conditions;

(2) [AOC-Aeroplane] Any aeroplane in commercial air transport operations; or

(3) [AAC-Helicopter] Any helicopter.

(b) USAGE. All flight crew members required to be on flight deck duty shall communicate through boom or throat microphones under the following operations or conditions:

(1) [AAC-Aeroplane] During IFR operations;

(2) [AOC-Aeroplane] Below the transition level/altitude; or

(3) [AAC-Helicopter] At all times.

7.4 NAVIGATION EQUIPMENT

7.4.1.1 GENERAL

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with navigation equipment that will enable it to proceed in accordance with:

(1) Its operational flight plan; and

(2) The requirements of ATS.

(b) No person may operate an aircraft in defined portions of airspace, including MNPS, RVSM, or any other routes where a navigation specification for PBN has been prescribed, unless:

(1) Information relevant to the aircraft navigation specification capabilities is listed in the AFM or other aircraft documentation approved by the State of Design;

(2) The aircraft is equipped with the navigation equipment to enable it to operate in accordance with the prescribed navigation specification(s);

(3) The aircraft is equipped with navigation equipment that continuously provides information to the flight crew of adherence to or departure from track with respect to the required degree of accuracy at any point along that track; and

(4) Where the aircraft is operated in accordance with a MEL, information relevant to the aircraft navigation specification capabilities is included in the MEL.

Note 1: Guidance on aircraft documentation is contained in ICAO Doc 9613, Performance-based Navigation (PBN) Manual*.*

Note 2: See ICAO Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive*, for guidance relating to the specific approval for operations in RVSM airspace.*

(c) No person shall operate an aircraft unless the aircraft has sufficient navigation equipment that will enable the aircraft to navigate in accordance with paragraphs 7.4.1.1(a) and (b) of this subsection, such that:

(1) In the event of the failure of any piece of navigation equipment at any stage of flight, the remaining equipment will enable the aircraft to continue to navigate; and

(2) The failure of any single unit required for communication, navigation, or surveillance purposes, or any combination thereof, will not result in the failure of another unit required for communication, navigation, or surveillance purposes.

(d) No person shall operate an aircraft in PBN operations unless such operations have been approved by the Authority.

(e) When and where a navigation specification for PBN has been prescribed by the Authority, the operator shall establish and document the following before using the PBN procedure:

(1) Normal and abnormal procedures, including contingency procedures;

(2) Flight crew qualification and proficiency requirements, in accordance with the appropriate navigation specifications;

(3) A training programme for relevant personnel, consistent with the intended operations; and

(4) Appropriate maintenance procedures to ensure continuing airworthiness, in accordance with the appropriate navigation specifications.

Note 1: Guidance on safety risks and mitigations for PBN operations, in accordance with ICAO Annex 19, is contained in ICAO Doc 9997, Performance-based Navigation (PBN) Operational Approval Manual.

Note 2: Electronic navigation data management is an integral part of normal and abnormal procedures.

Note: Guidance on specific approvals for PBN authorisation required navigation specifications is contained in ICAO Doc 9997, Performance-based Navigation (PBN) Operational Approval Manual.

(f) The equipment requirements in paragraph 7.4.1.1(a) of this subsection do not apply in instances where the Authority has authorised VFR by visual reference to landmarks.

Note: See ICAO Doc 9613, Performance-based Navigation (PBN) Manual*, for information on the implementation and approval process for PBN and for a list of references to other documents produced by States and international bodies concerning navigation systems.*

(g) [AAC] No person may operate an aeroplane under IFR, or under VFR over routes that cannot be navigated by reference to visual landmarks, unless the aeroplane is equipped with navigation equipment in accordance with the requirements of ATS in the area(s) of operation.

(h) [AAC] All aircraft intended to land in IMC or at night shall be provided with radio navigation equipment capable of receiving signals providing guidance to:

(1) A point from which a visual landing may be effected;

(2) Each aerodrome at which it is intended to land in IMC; and

(3) Any designated alternate aerodromes.

7.4.1.2 SURVEILLANCE EQUIPMENT

(a) No person may operate an aircraft unless it is provided with surveillance equipment that will enable it to operate in accordance with the requirements of ATS.

(b) For operations where surveillance equipment is required to meet an RSP specification for PBS, an aircraft shall, in addition to the requirements specified in paragraph 7.4.1.2(a) of this subsection:

(1) Be provided with surveillance equipment that will enable it to operate in accordance with the prescribed RSP specification(s);

(2) Have information relevant to the aircraft RSP specification capabilities listed in the AFM or other aircraft documentation approved by the Authority; and

(3) Have information relevant to the aircraft RSP specification capabilities included in the MEL.

Note 1: Information on surveillance equipment is contained in ICAO Doc 9924, Aeronautical Surveillance Manual*.*

Note 2: Information on RSP specifications for PBS is contained in ICAO Doc 9869, Performance-based Communication and Surveillance (PBCS) Manual*.*

(c) When and where an RSP specification for PBS has been prescribed by the Authority, the operator shall establish and document the following before using the PBS procedure:

(1) Normal and abnormal procedures, including contingency procedures;

(2) Flight crew qualification and proficiency requirements, in accordance with appropriate RSP specifications;

(3) A training programme for relevant personnel, consistent with the intended operations; and

(4) Appropriate maintenance procedures to ensure continuing airworthiness, in accordance with appropriate RSP specifications.

(d) The operator shall:

(1) Provide to the Authority the reports of observed surveillance performance issued by established monitoring programmes (ATS); and

(2) Take immediate corrective action for individual aircraft or aircraft types identified in such reports as not complying with the RSP specification(s).

7.4.1.3 MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS

(a) [AAC] No person may operate an aeroplane in MNPS airspace unless the aeroplane is equipped with navigation equipment that:

(1) Continuously provides indications to the flight crew of adherence to or departure from track to the required degree of accuracy at any point along that track; and

(2) Has been authorised by the Authority for the MNPS operations concerned through either operations specifications, for non-AOC holders, or a letter of authorisation, for general aviation.

Note: Equipment shall comply with MNPS prescribed in ICAO Doc 7030, Procedures for Air Navigation Services — Regional Supplementary Procedures*, in the form of Regional Supplementary Procedures.*

(b) [AAC] The navigation equipment required for operations in MNPS airspace shall be visible and usable by either pilot seated at either duty station.

(c) [AAC] For unrestricted operation in MNPS airspace, an aeroplane shall be equipped with two independent LRNS.

(d) [AAC] For operation in MNPS airspace along notified special routes, an aeroplane shall be equipped with one LRNS, unless otherwise specified.

7.4.1.4 REDUCED VERTICAL SEPARATION MINIMUM

(a) [AAC] For flights in defined portions of airspace where, based on a Regional Air Navigation Agreement, an RVSM of 300 m (1 000 ft) is applied between FL 290 and FL 410 inclusive, an aeroplane:

(1) Shall have equipment that is capable of:

(i) Indicating to the flight crew the flight level being flown;

(ii) Automatically maintaining a selected flight level;

(iii) Providing an alert to the flight crew when a deviation occurs from the selected flight level; the threshold for the alert shall not exceed ± 90 m (300 ft); and

(iv) Automatically reporting pressure altitude.

(2) Shall be authorised for operation in the airspace concerned by:

(i) The State of the Operator through operations specifications, for AOC holders; or

(ii) The State of Registry through a specific approval for operations for non-AOC holders.

(b) Prior to granting the RVSM specific approval required by paragraph 7.4.1.4(a)(2) of this subsection, the Authority shall be satisfied that:

(1) The vertical navigation performance capability of the aeroplane satisfies the requirements specified in IS 7.4.1.4;

(2) The operator has instituted appropriate procedures with respect to continuing airworthiness (maintenance and repair) practices and programmes; and

(3) The operator has instituted appropriate flight crew procedures for operations in RVSM airspace.

Note: An RVSM specific approval is valid globally on the understanding that any operating procedures specific to a given region will be stated in the OM or appropriate crew guidance.

(c) RVSM. Curaçao, in consultation with the State of Registry, if appropriate, shall ensure that, with respect to those aeroplanes mentioned in paragraph 7.4.1.4(a)(2) of this subsection, adequate provisions exist for:

(1) Receiving the reports of height-keeping performance issued by the monitoring agencies established in accordance with ICAO Annex 11: 3.3.5.1; and

(2) Taking immediate corrective action for individual aircraft, or aircraft type groups, identified in such reports as not complying with the height-keeping requirements for operations in airspace where RVSM is applied.

(d) An operator with RVSM specific approval shall ensure that a minimum of two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored at least once every 2 years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specified period.

(e) An operator shall ensure that each aeroplane shall be sufficiently provided with navigation equipment to ensure that, in the event of the failure of one item of equipment at any stage of the flight, the remaining equipment will enable the aeroplane to navigate in accordance with paragraphs 7.4.1.1(a) and (b) and 7.4.1.3 and 7.4.1.4 of this subsection.

(f) The Authority will take appropriate action with respect to aircraft and operators found to be operating in RVSM airspace in Curaçao without a valid RVSM specific approval.

Note 1: These provisions and procedures shall address both the situation where the aircraft in question is operating without specific approval in the airspace of the State, and the situation where an operator for which the State has regulatory oversight responsibility is found to be operating without the required approval in the airspace of another State.

Note 2: See ICAO Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive*, for guidance relating to the specific approval for operations in RVSM airspace.*

7.4.1.5 ELECTRONIC NAVIGATION DATA MANAGEMENT

(a) [AAC] No person shall employ electronic navigation data products that have been processed for application in the air and on the ground unless the Authority has approved:

(1) The operator's procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them;

(2) The operator's programme for continual monitoring of both the process and products; and

(3) The operator's procedures to ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

Note: Guidance relating to the processes that data suppliers may follow is contained in RTCA DO-200A/EUROCAE ED-76 *and* RTCA DO-201A/EUROCAE ED-77*.*

7.4.1.6 PRESSURE-ALTITUDE REPORTING TRANSPONDER

(a) [AAC] No person may operate an aeroplane or helicopter unless the aeroplane or helicopter is equipped with an operative pressure-altitude reporting transponder that operates in accordance

with the requirements of Curaçao ATS and the relevant provisions of ICAO Annex 10, Volume IV.

(b) [AAC] No person may operate an aircraft in airspace that requires a pressure-altitude reporting transponder unless that equipment is operative.

(c) [AOC] No person may operate an aeroplane unless the aeroplane is equipped with a data source that provides pressure altitude information with a resolution of 7.62 m (25 ft) or better.

(d) [AOC] No person may operate an aeroplane that is equipped with an automatic means of detecting airborne or on-the-ground status unless the aeroplane is equipped with a Mode S transponder.

Note 1: These requirements will improve the effectiveness of ACASs as well as ATS that employ Mode S radar. In particular, tracking processes are significantly enhanced with a resolution of 7.62 m (25 ft) or better.

Note 2: Mode C replies of transponders always report pressure altitude in 30.50 m (100 ft) increments irrespective of the resolution of the data source

7.5 AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION

7.5.1.1 ENGINE INSTRUMENTS

(a) [AAC] Unless the Authority allows or requires different instrumentation for turbine-engine-powered aeroplanes to provide equivalent safety, no person may operate any powered aircraft without the following engine instruments:

(1) A means for indicating fuel quantity in each fuel tank to be used;

(2) An oil pressure indicator for each engine;

(3) An oil temperature indicator for each engine;

(4) A manifold pressure indicator for each engine; and

(5) A tachometer for each engine.

(b) [AOC] Unless the Authority allows or requires different instrumentation for turbine-engine-powered aeroplanes to provide equivalent safety, in addition to the listed equipment requirements in paragraph 7.5.1.1(a) of this subsection, no person may operate any powered aircraft without the following engine instruments:

(1) A carburettor air temperature indicator for each reciprocating engine;

(2) A cylinder head temperature indicator for each air-cooled reciprocating engine;

(3) A fuel pressure indicator for each engine;

(4) A fuel flowmeter or fuel mixture indicator for each engine not equipped with an automatic altitude mixture control;

(5) An oil quantity indicator for each oil tank when a transfer or separate oil reserve supply is used;

(6) An independent fuel pressure warning device for each engine or a master warning device for all engines with a means for isolating the individual warning circuits from the master warning device; and

(7) A device for each reversible propeller, to indicate to the pilot when the propeller is in reverse pitch, that complies with the following:

(i) The device may be actuated at any point in the reversing cycle between the normal low pitch stop position and full reverse pitch, but it may not give an indication at or above the normal low pitch stop position; and

(ii) The source of indication shall be actuated by the propeller blade angle or shall be directly responsive to it.

7.5.1.2 REQUIRED AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION

(a) [AAC] All aircraft operated at night shall be equipped with:

(1) A landing light;

(2) Navigation/position lights;

(3) Illumination for all flight instruments and equipment that are essential for the safe operation of the aircraft;

(4) Lights in all passenger compartments; and

(5) An independent portable light for each crew member station (approval not required).

(b) All aircraft type certificated with an aviation red or an aviation white anti-collision system shall have the anti-collision system operative in both day and night. In the event of the failure of any light of the anti-collision light system, operation of the aircraft may continue to a location where repairs or replacement can be made.

7.5.1.3 REQUIRED AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(a) [AOC] No person may operate an aircraft in commercial air transport operations unless the aircraft is equipped with:

(1) Two landing lights or a single light having two separately energised filaments;

(2) An anti-collision light system;

(3) Illumination for all flight instruments and equipment that are essential for the safe operation of the aircraft;

(4) Lights in all passenger compartments;

(5) An independent portable light for each crew member station;

(6) Navigation/position lights;

(7) Lights to conform to the International regulations for preventing collisions at sea, if the aircraft is a seaplane or an amphibian aircraft; and

(8) For helicopters – a landing light that is trainable, at least in the vertical plane.

7.6 RESERVED

7.7 WARNING INSTRUMENTS AND SYSTEMS

7.7.1.1 MACH NUMBER INDICATOR

(a) [AAC] All aeroplanes with speed limitations expressed in terms of Mach number shall be equipped with a Mach number indicator.

7.7.1.2 LOSS OF PRESSURISATION INDICATOR

(a) [AAC] All pressurised aircraft intended to be operated at flight altitudes above 25 000 ft (7 600 m) shall be equipped with a device to provide positive warning to the flight crew of any dangerous loss of pressurisation.

7.7.1.3 LANDING GEAR INDICATOR POSITION AND AURAL WARNING DEVICE

(a) [AAC] Each powered civil aircraft with retractable landing gear shall have a landing gear indicator position.

(b) [AOC] Each aeroplane with retractable landing gear shall have an aural warning device that functions continuously under the following conditions:

(1) For aeroplanes with an established approach wing-flap position, whenever the wing flaps are extended beyond the maximum certificated approach climb configuration position in the AFM and the landing gear is not fully extended and locked; and

(2) For aeroplanes without an established approach climb wing-flap position, whenever the wing flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.

(c) [AOC] The warning system required by paragraph 7.7.1.3(b) of this subsection:

(1) Shall not have a manual shutoff;

(2) Shall be in addition to the throttle-actuated device installed under the type certification airworthiness requirements; and

(3) May utilise any part of the throttle-actuated system, including the aural warning device.

(d) [AOC] The flap position sensing unit required to comply with paragraph 7.7.1.3(b) of this subsection may be installed at any suitable place in the aeroplane.

7.7.1.4 ALTITUDE ALERTING SYSTEM

(a) [AAC] No person may operate a turbine-engined aeroplane with a maximum certificated take-off mass of over 5 700 kg or having a maximum approved passenger seating configuration of more than nine seats, or a turbojet-powered aeroplane, unless the aeroplane is equipped with an altitude alerting system capable of:

(1) Alerting the flight crew upon approaching a preselected altitude in either ascent or descent; and

(2) Alerting the flight crew by at least an aural signal when deviating above or below a preselected altitude.

(b) [AAC] For operations in defined portions of airspace where, based on a Regional Air Navigation Agreement, an RVSM of 300 m (1 000 ft) is applied between FL 290 and FL 410, an aircraft shall be provided with equipment that is capable of providing an alert to the flight crew when a deviation occurs from the selected flight level. The threshold for the alert may not exceed ± 90 m (300 ft).

7.7.1.5 GROUND PROXIMITY WARNING SYSTEM

(a) [AAC] No operator may operate a turbine-engined aeroplane, or a reciprocating-engine aeroplane of a maximum certificated take-off mass of over 5 700 kg or authorised to carry more than nine passengers, unless the aeroplane is equipped with a GPWS that has a forward looking terrain avoidance function.

(b) The operator shall implement database management procedures that ensure the timely distribution and update of current terrain and obstacle data to the GPWS.

(c) [AAC] Each GPWS shall automatically provide, by means of aural signals that may be supplemented by visual signals, timely and distinctive warning to the flight crew of the following circumstances:

(1) Excessive descent rate;

(2) Excessive terrain closure rate;

(3) Excessive altitude loss after take-off or go-around;

(4) Unsafe terrain clearance while not in landing configuration:

(i) Gear not locked down; and

(ii) Flaps not in a landing position; and

(5) Excessive descent below the instrument glide path.

7.7.1.6 WEATHER RADAR

(a) [AOC] No person may operate an aeroplane in commercial air transport operations when carrying passengers in an area where thunderstorms or other potentially hazardous weather conditions may be expected unless the aeroplane is equipped with weather radar.

(b) [AOC] No person may operate a helicopter in commercial air transport operations when carrying passengers in an area where thunderstorms or other potentially hazardous weather conditions may be expected unless the helicopter is equipped with weather radar.

7.7.1.7 AIRBORNE COLLISION AVOIDANCE SYSTEM

(a) [AAC] Any ACAS installed on an aircraft in Curaçao shall be approved by the Authority.

(b) [AAC] Each person operating an aircraft equipped with an ACAS shall have that system on and operating.

(c) [AAC] No person may operate a turbine-engined aeroplane with a maximum certificated take-off mass of over 5 700 kg, or that is authorised to carry more than 19 passengers, unless the aeroplane is equipped with an ACAS II.

(d) [AAC] An ACAS shall operate in accordance with the relevant provisions of ICAO Annex 10, Volume IV.

(e) [AOC] No person may operate a turbine-engined aeroplane with a maximum certificated take-off mass of over 5 700 kg, or that is authorised to carry more than 19 passengers, unless the aeroplane is equipped with an ACAS II.

7.7.1.8 FORWARD LOOKING WIND SHEAR WARNING SYSTEM – TURBOJET AEROPLANES

(a) [AOC] All turbojet aeroplanes with a maximum certificated take-off mass of over 5 700 kg or authorised to carry more than nine passengers shall be equipped with a forward looking wind shear warning system.

(b) [AOC] The forward looking wind shear warning system shall be capable of providing the pilot with a timely aural and visual warning of wind shear ahead of the aircraft and the information required to permit the pilot to safely commence and continue a missed approach or go-around or to execute an escape manoeuvre if necessary.

(c) [AOC] The forward looking wind shear warning system shall also provide an indication to the pilot when the limits specified for the certification of automatic landing equipment are being approached, when such equipment is in use.

7.7.1.9 LOCATION OF AN AEROPLANE IN DISTRESS

(a) Until 31 December 2024, all aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 01 January 2023, shall autonomously transmit information from which a position can be determined by the operator at least once every minute, when in distress.

(b) As of 01 January 2025, all aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 01 January 2024, shall autonomously transmit information from which a position can be determined by the operator at least once every minute, when in distress.

(c) No person may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg, for which the certificate of airworthiness is first issued on or after 01 January 2023, unless the aeroplane is equipped to autonomously transmit information from which a position can be determined by the operator at least once every minute, when in distress.

(d) ACTIVATION/DEACTIVATION. The equipment shall:

(1) Automatically activate immediately or within 5 seconds after detection of an activation event;

(2) Be capable of manual activation; and

(3) Be capable of deactivation using the same mechanism that activated it.

(e) TRANSMISSION. The equipment shall meet the following criteria:

(1) Location within a 6 NM radius, including after any accident;

(2) Timestamp of the position information; and

(3) The accuracy of position information shall, as a minimum, meet the position accuracy requirements established for ELTs.

(f) The operator shall make position information of a flight in distress available to the appropriate organisations, as established by the Authority.

Note 1: Aircraft behaviour events may include, but are not limited to, unusual attitudes, unusual speed conditions, collision with terrain, total loss of thrust/propulsion on all engines, and ground proximity warnings.

Note 2: A distress alert may be triggered using criteria that may vary as a result of aircraft position and phase of flight. Further guidance regarding in-flight event detection and triggering criteria may be found in the EUROCAE ED-237, Minimum Aviation System Performance Specification (MASPS) for Criteria to Detect In-Flight Aircraft Distress Events to Trigger Transmission of Flight Information.

Note 3: A State's procedures to address aircraft in distress are typically found in government agreements implementing ICAO Annexes 12 and 13. These procedures will contain coordination information with the appropriate organisations.

7.8 FLIGHT RECORDERS

7.8.1.1 FLIGHT RECORDER SYSTEMS

(a) Crash-protected flight recorders, for both aeroplanes and helicopters, shall comprise one or more of the following:

(1) An FDR;

(2) A CVR;

(3) An AIR; or

(4) A DLR.

Note: When image or data link information is required to be recorded on a crash-protected flight recorder, it is permissible to record it on either the CVR or the FDR.

(b) Lightweight flight recorders for aeroplanes shall comprise one or more of the following:

(1) An ADRS;

(2) A CARS;

(3) An AIRS; or

(4) A DLRS.

Note: When image or data link information is required to be recorded on a lightweight flight recorder, it is permissible to record it on either the CARS or the ADRS.

(c) Combination recorders (FDR/CVR) may be used to meet the equipage requirements for helicopters.

7.8.1.2 CONSTRUCTION AND INSTALLATION

(a) Flight recorders shall be constructed, located, and installed so as to provide maximum practical protection for the recordings in order that the recorded information may be preserved, recovered, and transcribed. Flight recorders shall meet the prescribed crashworthiness and fire protection specifications.

(b) Non-deployable flight recorder containers shall be painted a distinctive orange colour.

(c) Non-deployable crash-protected flight recorders shall:

(1) Carry reflective material to facilitate their location; and

(2) Have securely attached an automatically activated underwater locating device operating at a frequency of 37.5 kHz. At the earliest practical date, but not later than 01 January 2018, this device shall operate for a minimum of 90 days.

(d) ADFR containers shall:

(1) Be painted a distinctive orange colour; however, the surface visible from outside the aircraft may be of another colour;

(2) Carry reflective material to facilitate their location;

(3) Have an integrated automatically activated ELT; and

(4) Have specific requirements that can be found in IS 7.8.1.2.

(e) Flight recorder systems shall be installed so that:

(1) The probability of damage to the recordings is minimised;

(2) There is an aural or visual means for pre-flight checking that the flight recorder systems are operating properly; and

(3) If the flight recorder systems have an erasure device, the installation shall be designed to prevent operation of the device during flight time or crash impact;

(4) For aircraft for which the individual certificate of airworthiness is first issued on or after 01 January 2023, a flight-crew-operated erase function shall be provided on the flight deck which, when activated, modifies the recording of a CVR and AIR so that it cannot be retrieved using normal replay or copying techniques. The installation shall be designed to prevent activation during flight. In addition, the probability of an inadvertent activation of an erase function during an accident shall also be minimised; and

(5) They meet the prescribed crashworthiness and fire protection specifications.

(f) The crash-protected flight recorders shall be installed so that they receive electrical power from a bus that provides the maximum reliability for operation of the flight recorders without jeopardising service to essential or emergency loads.

(g) The lightweight flight recorders shall be connected to a power source having the characteristics which ensure proper and reliable recording in the operational environment.

(h) The flight recorder systems, when tested by methods approved by the State of Design, shall be demonstrated to be suitable for the environmental extremes over which they are designed to operate.

(i) Means shall be provided for an accurate time correlation between the flight recorder systems' recordings.

(j) The flight recorder system manufacturer shall provide the State of Design with the following information with respect to the flight recorder systems:

(1) Manufacturer's operating instructions, equipment limitations, and installation procedures;

(2) Parameter origin or source and equations that relate counts to units of measurement;

(3) Manufacturer's test reports; and

(4) Detailed information to ensure the continued serviceability of the flight recorder system.

(k) The holder of the airworthiness approval for the installation design of the flight recorder system shall make available the relevant continuing airworthiness information to the operator of the aeroplane to be incorporated in the continuing airworthiness maintenance programme. This continuing airworthiness information shall cover in detail all the tasks required to ensure the continued serviceability of the flight recorder system.

Note 1: For aircraft for which the application for type certification is submitted to a Contracting State before 01 January 2016, specifications applicable to crash-protected flight recorders may be found in EUROCAE ED-112A Minimum Operational Performance Specifications (MOPS)*, or earlier equivalent documents.*

Note 2: For aircraft for which the application for type certification is submitted to a Contracting State on or after 01 January 2016, specifications applicable to crash-protected flight recorders may be found in EUROCAE ED-112A, Minimum Operational Performance Specification (MOPS)*, or equivalent documents.*

Note 3: Specifications applicable to lightweight flight recorders may be found in EUROCAE ED-155, Minimum Operational Performance Specification (MOPS)*, or equivalent documents*

Note 4: Chapter 1, Section II, contains requirements for States regarding the use of voice, image, and/or data recordings and transcripts.

Note 5: The erase function is intended to prevent access to CVR and AIR recordings by normal replay or copying means, but shall not prevent accident investigation authorities access to such recordings by specialised replay or copying techniques.

Note 6: Lightweight flight recorders comprise one or more of the following: an ADRS; a CARS; an AIRS; or a DLRS. Image and data link information may be recorded on either a CARS or an ADRS.

Note 7: The flight recorder system is composed of the flight recorder as well as any dedicated sensors, hardware, and software that provide information prescribed by IS 7.8.2.1(A) and IS 7.8.2.1(B)

Note 8: Conditions related to the continued serviceability of a flight recorder system are defined in IS 7.8.1.4. ICAO Doc 10104, The Manual on Flight Recorder System Maintenance (FRSM), *provides guidance on maintenance tasks associated with flight recorder systems.*

7.8.1.3 OPERATION

(a) Flight recorder systems shall not be switched off during flight time.

(b) To preserve flight recorder records, flight recorders shall be deactivated upon completion of flight time following an accident or incident. The flight recorders shall not be reactivated before their disposition as determined in accordance with the accident/incident regulations of Curaçao.

Note 1: The need for removal of the flight recorder records from the aircraft will be determined by the investigation authority in the State conducting the investigation, with due regard to the seriousness of an occurrence and the circumstances, including the impact on the operation.

Note 2: The operator's responsibilities regarding the retention of flight recorder records are contained in the accident and incident regulations of Curaçao.

7.8.1.4 CONTINUED SERVICEABILITY AND INSPECTION OF FLIGHT RECORDER SYSTEMS

(a) The operator shall conduct operational checks and evaluations of recordings from the flight recorder systems to ensure the continued serviceability of the recorders.

(b) The procedures for the inspection of the flight recorder systems are prescribed in IS 7.8.1.4.

7.8.1.5 FLIGHT RECORDER ELECTRONIC DOCUMENTATION

(a) Operators shall provide to [ACCIDENT INVESTIGATION AUTHORITIES] the documentation of flight recording systems parameters in electronic format and in accordance with [INDUSTRY SPECIFICATIONS].

Note: Industry specification for documentation concerning flight recorder parameters may be found in the ARINC 647A, Flight Recorder Electronic Documentation*, or equivalent document.*

7.8.1.6 COMBINATION RECORDERS

(a) [AAC] No person may operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg which is required to be equipped with both an FDR and a CVR unless the aeroplane is equipped with:

(1) An FDR and a CVR; or

(2) Two combination recorders (FDR/DVR).

(b) [AOC] No person may operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg which is required to be equipped with both an FDR and a CVR unless:

(1) The aeroplane is equipped with an FDR and a CVR or, alternatively, equipped with two combination recorders (FDR/CVR); or

(2) For aeroplanes type certificated on or after 01 January 2016, the aeroplane is equipped with two combination recorders (FDR/CVR).

Note: The requirement may be satisfied by equipping the aeroplanes with two combination recorders (one forward and one aft) or separate devices.

(c) [AOC] No person may operate an aeroplane of a maximum certificated take-off mass of over 15 000 kg which is required to be equipped with both a CVR and an FDR and was type certificated on or after 01 January 2016 unless:

(1) The aeroplane is equipped with two combination recorders (FDR/CVR); and

(2) One recorder is located as close to the flight deck as practicable and the other recorder located as far aft as practicable.

(d) [AOC] No person may operate a multi-engined turbine-engined aeroplane of a maximum certificated take-off mass of 5 700 kg or less unless the aeroplane is equipped with:

(1) An FDR and/or a CVR; or

(2) One combination recorder (FDR/CVR).

7.8.1.7 FLIGHT RECORDER DATA RECOVERY

(a) All aeroplanes of a maximum certificated take-off mass of over 27 000 kg which are authorised to carry more than 19 passengers, and for which the application for type certification is submitted to a Contracting State on or after 01 January 2021, shall be equipped with a means approved by the Authority to recover flight recorder data and make it available in a timely manner.

(b) In approving the means to make flight recorder data available in a timely manner, the Authority shall take into account the following:

(1) The capabilities of the operator;

(2) Overall capability of the aeroplane and its systems as certified by State of Design;

(3) The reliability of the means to recover the appropriate CVR channels and appropriate FDR data; and

(4) Specific mitigation measures.

Note: Guidance on approving the means to make flight recorder data available in a timely manner is contained in ICAO Doc 10054, Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery.

7.8.2 FLIGHT DATA RECORDERS AND AIRCRAFT DATA RECORDING SYSTEMS

(a) The FDR or ADRS shall start to record prior to the aircraft moving under its own power and shall record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power.

7.8.2.1 TYPES AND PARAMETERS

(a) AEROPLANE. Aeroplane FDR shall record the parameters prescribed in IS 7.8.2.1(A).

(b) HELICOPTER. Helicopter FDR shall record the parameters prescribed in IS 7.8.2.1(B).

7.8.2.2 AIRCRAFT EQUIPAGE FOR OPERATIONS

(a) No person may operate the following aeroplane unless the aeroplane is equipped with an FDR capable of recording the aural environment of the flight deck during flight time.

(b) [AAC] All turbine-engined aeroplanes with a seating configuration of more than 5 passenger seats and a maximum certificated take-off mass of 5 700 kg or less, for which the application for a TC is first made to the appropriate Authority on or after 01 January 2016, shall be equipped with:

(1) An FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters displayed to the pilot(s) as prescribed in IS 7.8.2.2; or

(3) An ADRS that shall record at least the first 7 parameters prescribed in IS 7.8.2.2.

(i) If further ADRS recording capacity is available, the recording of any parameters from 8 onwards defined in IS 7.8.2.2 shall be considered.

Note: TC first issued refers to the date of issuance of the original TC for the aeroplane type, not the date of certification of particular aeroplane variants or derivative models.

(c) [AOC] All turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less, for which the individual certificate of airworthiness is first issued on or after 01 January 2016, shall be equipped with:

(1) An FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters displayed to the pilot(s) as defined in IS 7.8.2.2; or

(3) An ADRS that shall record at least the first 7 parameters listed in IS 7.8.2.2.

(d) [AAC] All aeroplanes of a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 32 parameters prescribed in IS 7.8.21(A).

(e) [AAC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A).

(f) [AOC] All multi-engined turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less, for which the individual certificate of airworthiness is first issued on or after 01 January 1990, shall be equipped with an FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A).

(g) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 5 700 kg, except those in paragraph 7.8.1.2(h) of this part, for which the individual certificate of airworthiness

was first issued before 01 January 1989, shall be equipped with an FDR that shall record at least the first five parameters prescribed in IS 7.8.2.1(A).

(h) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 5 700 kg, except those in 7.8.1.2 of this part, for which the individual certificate of airworthiness was first issued on or after 01 January 1987 but before 01 January 1989, shall be equipped with an FDR that shall record at least the first nine parameters prescribed in IS 7.8.2.1(A).

(i) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness was first issued on or after 01 January 1987, but before 01 January 1989, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with an FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A).

(j) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness was first issued before 01 January 1987, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with an FDR that shall record, in addition to the first five parameters prescribed in IS 7.8.2.1(A), such additional parameters as are necessary to meet the objectives of determining:

(1) The attitude of the aeroplane in achieving its flight path; and

(2) The basic forces acting upon the aeroplane resulting in the achieved flight path and the origin of such basic forces.

(k) [AAC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued after 01 January 2005, shall be equipped with an FDR that shall record at least the first 78 parameters prescribed in IS 7.8.2.1(A).

(l) All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the application for type certification is submitted on or after 01 January 2023, shall be equipped with an FDR capable of recording at least the 82 parameters prescribed in IS 7.8.2.1(A).

(m) All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2023, shall be equipped with an FDR capable of recording at least the 82 parameters prescribed in IS 7.8.2.1(A).

(n) No person may operate the following helicopter unless the helicopter is equipped with an FDR capable of recording the aural environment of the flight deck during flight time.

(o) [AAC] All helicopters with a maximum certificated take-off mass of over 3 175 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2016, shall be equipped with an FDR that shall record at least the first 48 parameters prescribed in IS 7.8.2.1(B).

(p) [AAC] All helicopters with a maximum certificated take-off mass of over 7 000 kg, or having a passenger seating configuration of more than 19, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 30 parameters prescribed in IS 7.8.2.1(B).

(q) [AAC] All helicopters with a maximum certificated take-off mass of over 3 175 kg, up to and including 7 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 15 parameters prescribed in IS 7.8.2.1(B).

(r) [AOC] All turbine-engined helicopters of a maximum certificated take-off mass of over 2 250 kg, up to and including 3 175 kg, for which the application for a TC is first made to the appropriate Authority on or after 01 January 2018, shall be equipped with:

(1) An FDR that shall record at least the first 48 parameters prescribed in IS 7.8.2.1(B);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters

displayed to the pilot(s), as defined in IS 7.8.2.2; or

(3) An ADRS that shall record the first 7 parameters prescribed in IS 7.8.2.2.

(s) [AOC] All helicopters of a maximum certificated take-off mass of 3 175 kg or less, for which the individual certificate of airworthiness is first issued on or after 01 January 2018, shall be equipped with:

(1) An FDR that shall record at least the first 48 parameters prescribed in IS 7.8.2.1(B);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters displayed to the pilot(s), as defined in IS 7.8.2.2; or

(3) An ADRS that shall record the first 7 parameters prescribed in IS 7.8.2.2.

(t) All helicopters of a maximum certificated take-off mass of over 3 175 kg, for which the application for type certification is submitted on or after 01 January 2023, shall be equipped with an FDR capable of recording at least the 53 parameters prescribed in IS 7.8.2.1(B).

(u) All helicopters of a maximum certificated take-off mass of over 3 175 kg for which the individual certificate of airworthiness is first issued on or after 01 January 2023 shall be equipped with an FDR capable of recording at least the 53 parameters prescribed in IS 7.8.2.1(B)

7.8.2.3 RECORDING TECHNOLOGY

(a) FDRs, ADRS, AIRs, or AIRS shall not use engraving metal foil, frequency modulation, photographic film, or magnetic tape in aircraft registered in Curaçao or operated in commercial air transport operations in Curaçao.

7.8.2.4 DURATION

(a) FDRs on aeroplanes shall be capable of retaining the information recorded during at least the last 25 hours of operation, with the exception of those installed on aeroplanes referenced in paragraph 7.8.2.2(f) of this part for which the FDR shall retain the information recorded during at least the last 30 minutes of operation, and, in addition, sufficient information from the preceding take-off for calibration purposes.

(b) FDRs on helicopters shall retain the information recorded during at least the last 10 hours of operation.

7.8.3 COCKPIT VOICE RECORDERS AND COCKPIT AUDIO RECORDING SYSTEMS

7.8.3.1 START AND STOP LOGIC – COCKPIT VOICE RECORDERS AND COCKPIT AUDIO RECORDING SYSTEMS

(a) The CVR and CARS shall start to record prior to the aircraft moving under its own power and shall record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power.

(b) In addition, depending on the availability of electrical power, the CVR or CARS shall start to record as early as possible during the flight deck checks prior to engine start at the beginning of the flight until the flight deck checks immediately following engine shutdown at the end of the flight.

(c) The CVR shall record simultaneously on four separate channels, or more, at least the following:

(1) Voice communication transmitted from or received in the aircraft by radio;

(2) Aural environment on the flight deck;

(3) Voice communication of flight crew members on the flight deck using the aircraft's interphone system, if installed; and

(4) Digital communications with ATS, unless recorded by the FDR.

(d) The preferred CVR audio allocation shall be as follows:

(1) PIC audio panel;

(2) Co-pilot audio panel;

(3) Additional flight crew positions and time reference; and

(4) Flight deck area microphone.

(e) The CARS shall record simultaneously on two separate channels, or more, at least the following:

(1) Voice communication transmitted from or received in the aircraft by radio;

(2) Aural environment on the flight deck; and

(3) Voice communication of flight crew members on the flight deck using the aircraft's interphone, if installed.

(f) The preferred CARS audio allocation shall be as follows:

(1) Voice communication; and

(2) Aural environment on the flight deck.

(g) On a tape-based CVR, to ensure accurate time correlation between channels, the recorder shall record in an in-line format. If a bi-directional configuration is used, the in-line format and channel allocation shall be retained in both directions.

7.8.3.2 AIRCRAFT EQUIPAGE FOR OPERATIONS USING COCKPIT VOICE RECORDERS AND COCKPIT AUDIO RECORDING SYSTEMS

(a) No person may operate an aeroplane unless the aeroplane is equipped with a CVR and CARS as listed below:

(1) [AAC] All turbine-engined aeroplanes required to be operated by more than one pilot and for which the application for a TC is first submitted to the appropriate Authority on or after 01 January 2016 shall be equipped with either a CVR or a CARS.

(2) [AAC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1987, shall be equipped with a CVR.

(3) [AOC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2003, shall be equipped with a CVR capable of retaining the information recorded during at least the last 2 hours of its operation.

(4) [AOC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1987, shall be equipped with a CVR.

(5) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness was first issued before 01 January 1987, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with a CVR.

(6) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, for which the individual certificate of airworthiness was first issued before 01 January 1987, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with a CVR.

(b) No person may operate a helicopter unless the helicopter is equipped with a CVR as listed below:

(1) [AAC] All helicopters of a maximum certificated take-off mass of over 7 000 kg shall be equipped with a CVR. For helicopters not equipped with an FDR, at least main rotor speed shall be recorded on the CVR.

(2) [AAC] All helicopters of a maximum certificated take-off mass of over 3 175 kg, for which the individual certificate of worthiness is first issued on or after 01 January 1987, shall be equipped with a CVR. For helicopters not equipped with an FDR, at least main rotor speed shall be recorded on the CVR.

7.8.3.3 DISCONTINUATION

(a) CVRs and CARS shall not use magnetic tape or wire in aircraft registered in Curaçao or operated in commercial air transport operations in Curaçao.

7.8.3.4 DURATION

(a) A CVR shall retain the information recorded during at least the last 2 hours of its operation.

(b) All aeroplanes of a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2022, shall be equipped with a CVR that shall retain the information recorded during at least the last 25 hours of its operation.

(c) All aeroplanes that are required to be equipped with CARS, and for which the individual certificate of airworthiness is first issued on or after 01 January 2025, shall be equipped with a CARS that shall retain the information recorded during at least the last 2 hours of its operation.

7.8.3.5 COCKPIT VOICE RECORDER ALTERNATE POWER SOURCE

(a) [AOC] No person may operate an aeroplane required to be equipped with a CVR unless the aeroplane is equipped with CVR alternate power that:

(1) Automatically engages and provides 10 minutes, plus or minus one minute, of operation whenever aeroplane power to the recorder ceases, either by normal shutdown or by any other loss of power;

(2) Powers the CVR and its associated flight deck area microphone components; and

(3) Is located as close as practicable to the alternate power source.

(b) [AOC] No person may operate an aeroplane of a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2018, unless the aeroplane is equipped with an alternate power source, as described in paragraph 7.8.3.5(a) of this subsection, that powers:

(1) The forward CVR, in the case of combination recorders; or

(2) At least one CVR.

Note 1: "Alternate" means separate from the power source that normally provides power to the CVR. The use of aeroplane batteries or other power sources is acceptable provided that the requirements above are met and electrical power to essential and critical loads is not compromised.

Note 2: When the CVR function is combined with other recording functions within the same unit, powering the other functions is allowed.

7.8.4 DATA LINK RECORDERS AND DATA LINK RECORDING SYSTEMS

7.8.4.1 GENERAL

(a) No person may operate an aeroplane or a helicopter for which the individual certificate of airworthiness is first issued on or after 01 January 2016, and which use any of the DLC applications referred to in IS 7.8.4.1 and are required to carry a CVR, unless the aircraft records the DLC messages on a crash-protected flight recorder.

(b) No person may operate an aeroplane or a helicopter modified on or after 01 January 2016, which

use any of the DLC applications referred to in IS 7.8.4.1, unless the aircraft records the DLC message on a crash-protected flight recorder or the installed DLC equipment is compliant with a TC issued or aircraft modification first approved prior to 01 January 2016.

(c) No person may operate an aeroplane or a helicopter where the aircraft flight path is authorised or controlled through the use of data link messages, unless all data link messages, both uplinks to the aircraft and downlinks from the aircraft, are recorded on the aircraft. As far as practicable, the time the messages were displayed to the flight crew and the time of the responses shall be recorded.

(d) No person may operate an aeroplane or a helicopter where the individual certificate of airworthiness was first issued before 01 January 2016, that are required to carry a CVR and are modified on or after 01 January 2016 to use any of the DLC applications referred to in IS 7.8.4.1 shall record the DLC messages on a crash-protected flight recorder.

Note 1: IS 7.8.4.1 contains table 5, Data link communications (DLC) recording installation clarification.

Note 2: A Class B AIR may be a means for recording DLC applications messages to and from the aircraft where it is not practical or is prohibitively expensive to record those DLC applications messages on FDR or CVR.

Note 3: The "aircraft modifications" refer to modifications to install the DLC equipment on the aircraft (e.g., structural, wiring).

7.8.4.2 DURATION

(a) The minimum recording duration shall be equal to the duration of the CVR.

7.8.4.3 CORRELATION

(a) Data link recording shall be correlated to the recorded flight deck audio.

7.8.5 AIRBORNE IMAGE RECORDER AND AIRBORNE IMAGE RECORDING SYSTEM

(a) No person shall operate an aircraft unless the AIR or AIRS shall start to record prior to the aircraft moving under its own power and shall record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power. In addition, depending on the availability of electrical power, the AIR or AIRS shall start to record as early as possible during the flight deck checks prior to engine start at the beginning of the flight until the flight deck checks immediately following engine shutdown at the end of the flight.

(b) AIRs are classified as follows:

(1) A Class A AIR or AIRS captures the general flight deck area in order to provide data supplemental to conventional flight recorders.

(2) A Class B AIR or AIRS captures data link message displays.

(3) A Class C AIR or AIRS captures instruments and control panels.

Note 1: To respect crew privacy, the flight deck area view may be designed as far as practical to exclude the head and shoulders of crew members whilst seated in their normal operating position.

Note 2: A Class C AIR or AIRS may be considered as a means for recording flight data where it is not practical or is prohibitively expensive to record on an FDR, or where an FDR is not required.

7.8.6 FLIGHT CREW-MACHINE INTERFACE RECORDING

7.8.6.1 GENERAL

(a) No person may operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2023, unless the aeroplane shall be equipped with a crash-protected flight recorder that shall record the information displayed to the flight crew from electronic displays, as well as the operation of switches and selectors by the flight crew as defined in IS 7.8.2.1

(b) No person shall operate an aircraft unless the AIR or AIRS shall start to record prior to the aircraft moving under its own power and record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power. In addition, depending on the availability of electrical power, the AIR or AIRS shall start to record as early as possible during the flight deck checks prior to engine start at the beginning of the flight until the flight deck checks immediately following engine shutdown at the end of the flight.

7.8.6.2 APPLICATIONS TO BE RECORDED

(a) The operation of switches and selectors and the information displayed to the flight crew from electronic displays shall be captured by sensors or other electronic means.

(b) The recording of operation of switches and selectors by the flight crew shall include the following:

(1) Any switch or selector that will affect the operation and the navigation of the aircraft; and

(2) Selection of normal and alternate systems.

(c) The recording of the information displayed to the flight crew from electronic displays shall include the following:

(1) Primary flight and navigation displays;

(2) Aircraft system monitoring displays;

(3) Engine indication displays;

(4) Traffic, terrain, and weather displays;

(5) Crew alerting systems displays;

(6) Stand-by instruments; and

(7) Installed EFB to the extent it is practical.

(d) If image sensors are used, the recording of such images shall not capture the head and shoulders of the flight crew members whilst seated in their normal operating position.

7.8.6.3 DURATION

(a) The minimum flight crew-machine interface recording duration shall be at least for the last 2 hours.

7.8.6.4 CORRELATION

(a) Flight crew-machine interface recordings shall be able to be correlated to the recorded flight deck audio.

7.9 EMERGENCY, RESCUE, AND SURVIVAL EQUIPMENT

7.9.1.1 EMERGENCY EQUIPMENT – ALL AIRCRAFT

(a) [AAC] No person shall operate an aeroplane unless each item of emergency and flotation equipment is:

(1) Readily accessible to the crew and, with regard to equipment located in the passenger compartment, to passengers without appreciable time for preparatory procedures;

(2) Clearly identified and clearly marked to indicate its method of operation;

(3) Marked as to date of last inspection; and

(4) Marked as to contents when carried in a compartment or container.

7.9.1.2 EMERGENCY EXIT EQUIPMENT – PASSENGERS

(a) No person shall operate an aeroplane without the following emergency exit equipment:

(1) [AAC] Each passenger-carrying landplane emergency exit (other than over-the-wing) that

is more than 1.8 m (6 ft) from the ground with the aeroplane on the ground and the landing gear extended shall have an approved means to assist the occupants in descending to the ground.

(2) [AAC] Each passenger emergency exit, its means of access, and its means of opening shall be conspicuously marked by a sign visible to occupants approaching along the main passenger aisle.

(3) [AAC] Each passenger-carrying aeroplane shall have an emergency lighting system, independent of the main lighting system, that:

(i) Illuminates each passenger exit marking and locating sign;

(ii) Provides enough general lighting in the passenger cabin; and

(iii) [AOC] Includes floor proximity emergency escape path marking.

(4) [AAC] Each passenger emergency exit and the means of opening that exit from the outside shall be marked on the outside of the aeroplane.

(5) [AAC] Each passenger-carrying aeroplane shall be equipped with a slip-resistant escape route that meets the requirements under which that aeroplane was type certified.

(6) Each passenger-carrying aeroplane shall meet the detailed requirements contained in IS 7.9.1.2.

(b) No person shall operate a helicopter certificated with a maximum certificated take-off mass of 3 175 kg (7 000 lbs) or less and nine or less passenger seats without the following emergency exit equipment:

(1) NUMBER AND LOCATION.

(i) There shall be at least one emergency exit on each side of the cabin readily accessible to each passenger. One of these exits shall be usable in any probable attitude that may result from a crash.

(ii) Doors intended for normal use may also serve as emergency exits, provided that they meet the requirements of this section.

(2) If emergency flotation devices are installed, there shall be an emergency exit accessible to each passenger on each side of the cabin that is shown by test, demonstration, or analysis to:

(i) Be above the waterline; and

(ii) Be open without interference from flotation devices, whether stowed or deployed.

(c) TYPE AND OPERATION. Each emergency exit prescribed by paragraph 7.9.1.2(a) of this subsection shall:

(1) Consist of a movable window or panel, or an additional external door, providing an unobstructed opening that will admit a 48 cm (19 in) by 66 cm (26 in) ellipse;

(2) Have simple and obvious methods of opening, from the inside and from the outside, that do not require exceptional effort;

(3) Be arranged and marked so as to be readily located and opened even in darkness; and

(4) Be reasonably protected from jamming by fuselage deformation.

(d) DITCHING EMERGENCY EXITS FOR PASSENGERS. If certification with ditching provisions is requested, the markings required by paragraph 7.9.1.2(c)(3) of this subsection shall be designed to remain visible if the helicopter is capsized and the cabin is submerged.

(e) No person shall operate a helicopter certificated with a maximum certificated take-off mass of over

9 071 kg (20 000 lbs) and 10 or more passenger seats without the following emergency exit equipment:

(1) PASSENGER EMERGENCY EXITS AND OPENINGS. Openings with dimensions larger than those specified below may be used, regardless of shape, if the base of the opening has a flat surface of not less than the specified width. For the purpose of this part, the types of passenger emergency exit shall be as follows:

(i) TYPE I. This type shall have a rectangular opening of not less than 61 cm (24 in) wide by 122 cm (48 in) high, with corner radii not greater than one-third the width of the exit, in the passenger area in the side of the fuselage at floor level and as far away as practicable from areas that might become potential fire hazards in a crash.

(ii) TYPE II. This type is the same as Type I, except that the opening shall be at least 51 cm (20 in) wide by 112 cm (44 in) high.

(iii) TYPE III. This type is the same as Type I, except that:

(A) The opening shall be at least 51 cm (20 in) wide by 91 cm (36 in) high; and

(A) The exits need not be at floor level.

(iv) TYPE IV. This type shall have a rectangular opening of not less than 48 cm (19 in) wide by 66 cm (26 in) high, with corner radii not greater than one-third the width of the exit, in the side of the fuselage with a step-up inside the rotorcraft of not more than 74 cm (29 in).

(2) PASSENGER EMERGENCY EXITS – SIDE-OF-FUSELAGE. Emergency exits shall be accessible to the passengers and, except as provided in paragraph 7.9.1.2(e)(4) of this subsection, shall be provided in accordance with the following table: Emergency exits for each side of the fuselage.

Passenger Seating Capacity	**Emergency Exits for Each Side of the Fuselage**			
	Type I	**Type II**	**Type III**	**Type IV**
1 through 10				1
11 through 19			1 or	2
20 through 39		1		1
40 through 59	1			1
60 through 79	1		(1) or	2

(3) PASSENGER EMERGENCY EXITS – OTHER THAN SIDE-OF-FUSELAGE. In addition to the requirements of paragraph 7.9.1.2(e)(2) of this subsection:

(i) There shall be enough openings in the top, bottom, or ends of the fuselage to allow evacuation with the rotorcraft on its side; or

(ii) The probability of the rotorcraft coming to rest on its side in a crash landing shall be extremely remote.

(4) DITCHING EMERGENCY EXITS FOR PASSENGERS. If the helicopter was certificated with ditching provisions, ditching emergency exits shall be provided in accordance with the following:

(i) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 9 seats or less, 1 exit above the waterline in each side of the rotorcraft, meeting at least the dimensions of a Type IV exit.

(ii) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 10 seats or more, 1 exit above the waterline in a side of the rotorcraft meeting at least the dimensions of a Type III exit, for each unit (or part of a unit) of 35 passenger seats, but no less than 2 such exits in the passenger cabin, with 1 on each side of the rotorcraft. However, where it has been shown through analysis, ditching demonstrations, or any other tests found necessary, that the evacuation capability of the rotorcraft during ditching is improved by the use of larger exits, or by other means, the passenger seat-to-exit ratio may be increased.

(iii) Flotation devices, whether stowed or deployed, may not interfere with or obstruct the exits.

(5) RAMP EXITS. One Type I exit only, or one Type II exit only, that is required in the side of the fuselage under paragraph 7.9.1.2(e)(2) of this subsection, may be installed instead in the ramp of floor ramp rotorcraft if:

(i) Its installation in the side of the fuselage is impractical; and

(ii) Its installation in the ramp meets emergency exit access requirements in paragraph 7.9.1.2(e)(4) of this subsection.

(6) EMERGENCY EXIT ARRAGNEMENT.

(i) Each emergency exit shall consist of a movable door or hatch in the external walls of the fuselage and shall provide an unobstructed opening to the outside.

(ii) Each emergency exit shall be openable from the inside and from the outside.

(iii) The means of opening each emergency exit shall be simple and obvious and shall not require exceptional effort.

(iv) There shall be means for locking each emergency exit and for preventing opening in flight inadvertently or as a result of mechanical failure.

(v) There shall be means to minimise the probability of the jamming of any emergency exit in a minor crash landing as a result of fuselage deformation under the ultimate inertial forces:

(A) Upward – 1.5g

(B) Forward – 4.0g

(C) Sideward – 2.0g

(D) Downward – 4.0g

(7) Except as provided in paragraph 7.9.1.2(e)(9) of this subsection, each land-based rotorcraft emergency exit shall have an approved slide as stated in paragraph 7.9.1.2(e)(8) of this subsection, or its equivalent, to assist occupants in descending to the ground from each floor-level exit, and an approved rope, or its equivalent, for all other exits, if the exit threshold is more than 1.8 m (6 ft) above the ground:

(i) With the rotorcraft on the ground and with the landing gear extended;

(ii) With one or more legs or part of the landing gear collapsed, broken, or not extended; and

(iii) With the rotorcraft resting on its side, provided this was accomplished during the emergency evacuation test during type certification of the helicopter.

(8) The slide for each passenger emergency exit shall be a self-supporting slide or equivalent, and shall be designed to meet the following requirements

(i) It shall be automatically deployed, and deployment shall begin during the interval between the time the exit opening means is actuated from inside the rotorcraft and the time the exit is fully opened. However, each passenger emergency exit that is also a passenger entrance door or a service door shall be provided with means to prevent deployment of the slide when the exit is opened from either the inside or the outside under non-emergency conditions for normal use.

(ii) It shall be automatically erected within 10 seconds after deployment is begun.

(iii) It shall be of such length after full deployment that the lower end is self-supporting on the ground and provides safe evacuation of occupants to the ground after collapse of one or more legs or part of the landing gear.

(iv) It shall have the capability, in 25-knot winds directed from the most critical angle, to deploy and, with the assistance of only one person, to remain usable after full deployment to evacuate occupants safely to the ground.

(9) For helicopters having 30 or fewer passenger seats and having an exit threshold more than 1.8 m (6 ft) above the ground, a rope or other assist means may be used in place of the slide specified in paragraph 7.9.1.2(e)(7) of this subsection, provided this was accomplished during the emergency vacuation test during type certification of the helicopter.

(10) If a rope, with its attachment, is used for compliance with paragraphs 7.9.1.2(e)(7), (8), or (9) of this subsection, it shall:

(i) Withstand a 181-kg (400-lb) static load; and

(ii) Attach to the fuselage structure at or above the top of the emergency exit opening, or at another approved location if the stowed rope may reduce the pilot's view in-flight.

(11) EMERGENCY EXIT MARKING.

(i) Each passenger emergency exit, its means of access, and its means of opening shall be conspicuously marked for the guidance of occupants using the exits in daylight or in the dark. Such markings shall be designed to remain visible for rotorcraft equipped for overwater flights if the rotorcraft is capsized and the cabin is submerged.

(ii) The identity and location of each passenger emergency exit shall be recognisable from a distance equal to the width of the cabin.

(iii) The location of each passenger emergency exit shall be indicated by a sign visible to occupants approaching along the main passenger aisle. There shall be a locating sign:

(A) Next to or above the aisle near each floor emergency exit, except that one sign may serve two exits if both exits can be seen readily from that sign; and

(B) On each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible, the sign may be placed at another appropriate location.

(iv) Each passenger emergency exit marking and each locating sign shall have white letters 2.5 cm (1 in) high on a red background 5 cm (2 in) high, shall be self or electrically illuminated, and shall have a minimum luminescence (brightness) of

at least 160 micro lamberts. The colours may be reversed if this will increase the emergency illumination of the passenger compartment.

(v) The location of each passenger emergency exit operating handle and instructions for opening shall be shown:

(A) For each emergency exit, by a marking on or near the exit that is readable from a distance of 76 cm (30 in); and

(B) For each Type I or Type II emergency exit with a locking mechanism released by rotary motion of the handle, by:

1. A red arrow, with a shaft at least three-fourths of an inch wide and a head twice the width of the shaft, extending along at least 70 degrees of arc at a radius approximately equal to three-fourths of the handle length; and

2. The word “open” in red letters 2.5 cm (1 in) high, placed horizontally near the head of the arrow.

(12) Each emergency exit, and its means of opening, shall be marked on the outside of the rotorcraft. In addition, the following apply:

(i) There shall be a 2-inch coloured band outlining each passenger emergency exit, except small rotorcraft with a maximum certificated take-off mass of 5 700 kg (12 500 lbs) or less may have a 5-cm (2-in) coloured band outlining each exit release lever or device of passenger emergency exits that are normally used doors.

(ii) Each outside marking, including the band, shall have colour contrast to be readily distinguishable from the surrounding fuselage surface. The contrast shall be such that, if the reflectance of the darker colour is 15 per cent or less, the reflectance of the lighter colour shall be at least 45 per cent. “Reflectance” is the ratio of the luminous flux reflected by a body to the luminous flux it receives. When the reflectance of the darker colour is greater than 15 per cent, at least a 30 per cent difference between its reflectance and the reflectance of the lighter colour shall be provided.

(13) EMERGENCY LIGHTING. The following apply:

(i) A source of light with its power supply independent of the main lighting system shall be installed to:

(A) Illuminate each passenger emergency exit marking and locating sign; and

(B) Provide enough general lighting in the passenger cabin so that the average illumination, when measured at 102-cm (40-in) intervals at seat armrest height on the centerline of the main passenger aisle, is at least 0.05 foot-candle.

(ii) Exterior emergency lighting shall be provided at each emergency exit. The illumination may not be less than 0.05 foot-candle (measured normal to the direction of incident light) for minimum width on the ground surface, with landing gear extended, equal to the width of the emergency exit where an evacuee is likely to make first contact with the ground outside the cabin. The exterior emergency lighting may be provided by either interior or exterior sources with light intensity measurements made with the emergency exits open.

(iii) Each light required by paragraph 7.9.1.2(e)(13)(i) or (ii) of this subsection shall be operable manually from the flight deck and from a point in the passenger

compartment that is readily accessible. The flight deck control device shall have an "on," "off," and "armed" position so that when turned on at the flight deck or passenger compartment or when armed at the flight deck, the emergency lights will either illuminate or remain illuminated upon interruption of the rotorcraft's normal electric power.

(iv) Any means required to assist the occupants in descending to the ground shall be illuminated so that the erected assist means is visible from the rotorcraft.

(A) The assist means shall be provided with an illumination of not less than 0.03 foot-candle (measured normal to the direction of the incident light) at the ground end of the erected assist means where an evacuee using the established escape route may normally make first contact with the ground, with the rotorcraft in each of the attitudes corresponding to the collapse of one or more legs of the landing gear.

(B) If the emergency lighting subsystem illuminating the assist means is independent of the rotorcraft's main emergency lighting system, it will:

1. Automatically be activated when the assist means is erected;

2. Provide the illumination required by paragraph 7.9.1.2(e)(13)(iv)(A) of this subsection; and

3. Not be adversely affected by stowage.

(v) The energy supply to each emergency lighting unit shall provide the required level of illumination for at least 10 minutes at the critical ambient conditions after an emergency landing.

(vi) If storage batteries are used as the energy supply for the emergency lighting system, they may be recharged from the rotorcraft's main electrical power system provided the charging circuit is designed to preclude inadvertent battery discharge into charging circuit faults.

(14) EMERGENCY EXIT ACCESS.

(i) Each passageway between passenger compartments, and each passageway leading to Type I and Type II emergency exits, shall be:

(A) Unobstructed; and

(B) At least 51 cm (20) in wide.

(ii) For each emergency exit covered by paragraph 7.9.1.2(e)(7) of this subsection, there shall be enough space adjacent to that exit to allow a crew member to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required for that exit.

(iii) There shall be access from each aisle to each Type III and Type IV exit, and:

(A) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 20 or more, the projected opening of the exit provided shall not be obstructed by seats, berths, or other protrusions (including seatbacks in any position) for a distance from that exit of not less than the width of the narrowest passenger seat installed on the rotorcraft; and

(B) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 19 or less, there may be minor obstructions in the region described in paragraph 7.9.1.2(e)(14)(iii)(C) of this subsection, if there are compensating factors to maintain the effectiveness of the exit.

(15) MAIN ISLE WIDTH. The main passenger aisle width between seats shall equal or exceed the values in the following table:

Passenger Seating Capacity	Minimum Main Passenger Aisle Width	
	Less Than 64 cm (25 in) From Floor (inches)	64 cm (25 in) and More From Floor (inches)
10 or less	30 cm (12 in)	38 cm (15 in)
11 through 19	30 cm (12 in)	51 cm (20 in)
20 or more	38 cm (15 in)	51 cm (20 in)

7.9.1.3 VISUAL SIGNALLING DEVICES

(a) [AAC] No person may operate an aircraft over water, or across land areas that have been designated by Curaçao as areas in which search and rescue may be especially difficult, unless equipped with such signalling devices as may be appropriate to the area overflown, to include:

(1) At least one pyrotechnic signalling device for each life raft required for overwater operations; and

(2) Any other requirements specified by Curaçao.

7.9.1.4 SURVIVAL KITS

(a) [AAC] No person may operate an aircraft across land areas that have been designated by Curaçao as areas in which search and rescue may be especially difficult, unless it is equipped with enough of the survival kits specified in 7.9.1.18(d)(2) of this part for the number of occupants of the aeroplane or helicopter appropriate for the route to be flown.

(b) [AAC] No person may operate an aircraft over water as specified in 7.9.1.18(a) of this part unless it is equipped with enough of the survival kits specified in 7.9.1.18(d)(2) of this part for the number of occupants of the aeroplane or helicopter.

7.9.1.5 EMERGENCY LOCATOR TRANSMITTER

(a) No person shall operate an aeroplane without the following emergency locator equipment:

(1) [AAC] All aeroplanes on all flights shall be equipped with an automatically activated ELT that transmits simultaneously on both 406 MHz and 121.5 MHz and meets the technical standards specified by the Authority and the relevant portions of ICAO Annex 10, Volume III.

(2) [AAC] All aeroplanes authorised to carry more than 19 passengers shall be equipped with at least 1 automatic ELT or 2 ELTs of any type.

(3) [AAC] All aeroplanes authorised to carry more than 19 passengers, for which the individual certificate of airworthiness is first issued after 01 July 2008, shall be equipped with:

(i) At least two ELTs, one of which shall be automatic; or

(ii) At least one ELT and a capability that meets the requirements of 7.7.1.9 of this part unless some other means of compliance of aircraft distress tracking has been used.

(4) [AOC] No person may operate an aeroplane in long-range overwater operations, or over designated land areas where search and rescue may be especially difficult, without having on the aeroplane at least two ELTs, one of which shall be automatic.

(5) [AOC] At least one survival-type ELT shall be located with each life raft carried. (Section 7.9.1.18 of this part has additional requirements for life rafts.)

Note: Paragraph 7.9.1.5(a)(5) of this subsection is an FAA requirement and not an ICAO Standard. Most transport category aircraft come equipped with this equipment

(b) No person shall operate a helicopter without the following emergency locator equipment:

(1) [AAC] All helicopters on all flights shall be equipped with an automatically activated ELT that transmits simultaneously on both 406 MHz and 121.5 MHz and meets the technical standards specified by the Authority and the relevant portions of ICAO Annex 10, Volume III.

(2) [AAC] All helicopters operating on flights over water, or in a hostile environment designated as a land area where search and rescue may be especially difficult, shall be equipped with at least one automatic ELT and one ELT(S) in each life raft carried on board. (Section 7.9.1.18 of this part has additional requirements for life rafts.)

Note 1: When operating in a hostile environment, a safe ditching requires a helicopter to be designed for landing on water or certificated in accordance with ditching provisions.

Note 2: The judicious choice of numbers of ELTs, their type and placement on aircraft and associated floatable life support systems, will ensure the greatest chance of ELT activation in the event of an accident for aircraft operating over water or land, including areas especially difficult for search and rescue. Placement of transmitter units is a vital factor in ensuring optimal crash and fire protection. The placement of the control and switching devices (activation monitors) of automatic fixed ELTs and their associated operational procedures will also take into consideration the need for rapid detection of inadvertent activation and convenient manual switching by crew members.

(c) The date for a replacement of the battery in the ELT shall be legibly marked on the outside of the transmitter.

(d) [AAC] Batteries used in ELTs shall be replaced (or recharged if the battery is rechargeable) when:

(1) The transmitter has been in use for more than 1 cumulative hour; or

(2) Fifty per cent of their useful life (or, for rechargeable batteries, 50 per cent of their useful life of charge) has expired.

Note: The battery useful life (or useful life of charge) requirements do not apply to batteries (such as water-activated batteries) that are essentially unaffected during probable storage intervals.

7.9.1.6 PORTABLE FIRE EXTINGUISHERS

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with portable fire extinguishers of a type that, when discharged, will not cause dangerous contamination of the air within the aircraft. At least one portable fire extinguisher shall be located in:

(1) The pilot's compartment; and

(2) Each passenger compartment that is separate from the pilot's compartment and not readily accessible to the flight crew.

Note: Any portable fire extinguisher so fitted in accordance with the certificate of airworthiness of the aeroplane may count as one prescribed.

(b) [AOC] No person may operate an aircraft unless the aircraft is equipped with portable fire extinguishers accessible for use in crew, passenger, and cargo compartments as follows:

(1) The type and quantity of extinguishing agent shall be suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used.

(2) At least one portable fire extinguisher shall be provided and conveniently located for use in each Class E cargo compartment that is accessible to crew members during flight, and at least one portable fire extinguisher shall be located in each upper and lower lobe galley.

(3) At least one portable fire extinguisher shall be conveniently located on the flight deck for use by the flight crew.

(4) At least one portable fire extinguisher shall be conveniently located in the passenger compartment if the passenger compartment is separate from the flight deck and not readily accessible to the flight crew.

(5) For each aeroplane having a passenger seating capacity of more than 30, there shall be at least the following number of portable fire extinguishers conveniently located and uniformly distributed throughout the compartment:

Minimum Number of Hand Fire Extinguishers Passenger Seating Capacity	
7 through 29	1
30 through 60	2
61 through 200	3
201 through 300	4
301 through 400	5
401 through 500	6
501 through 600	7
601 and more	8

(c) [AAC] Any agent used in a portable fire extinguisher in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2011, and any extinguishing agent used in a portable fire extinguisher in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2018, shall:

(1) Meet the applicable minimum performance requirements of the Authority; and

(2) Not contain Halon 1211, Halon 1301, or Halon 2402.

Note 1: The substances listed in paragraph 7.9.1.6(c)(2) of this part, Halon 1211, Halon 1301, and Halon 2402, are listed Annex A, Group II, of the Montreal Protocol on Substances that Deplete the Ozone Layer*, 8th Edition, 2009, which is listed in ICAO Annex 6, Part I: 6.2.2.1; ICAO Annex 6, Part II: 2.4.2.3; and ICAO Annex 6, Part III, Section III: 4.1.3.2. and 4.2.2.1.*

Note 2: Information concerning extinguishing agents is contained in the UNEP Halons Options Committee Technical Note 1, New Technology Halon Alternatives, *and FAA Report DOT/FAA/AR-99-63*, Options to the Use of Halons for Aircraft Fire Suppression Systems*.*

7.9.1.7 LAVATORY FIRE EXTINGUISHER

(a) [AAC] No person may operate an aircraft unless each lavatory in the aircraft is equipped with a built-in fire extinguisher for each disposal receptacle for towels, paper, or waste located within the lavatory.

(b) [AAC] Built-in lavatory fire extinguishers shall be designed to discharge automatically into each disposal receptacle upon occurrence of a fire in the receptacle.

(c) [AAC] Any agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels

or waste in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2011 shall:

(1) Meet the applicable minimum performance requirements of the Authority; and

(2) Not contain Halon 1211, Halon 1301, or Halon 2402.

Note 1: The substances listed in paragraph 7.9.1.7(c)(2) of this part, Halon 1211, Halon 1301, and Halon 2402, are listed Annex A, Group II of the Montreal Protocol on Substances that Deplete the Ozone Layer*, 8th Edition, 2009, which is listed in ICAO Annex 6, Part I: 6.2.2.1; ICAO Annex 6, Part II: 2.4.2.3; and ICAO Annex 6, Part III, Section III: 4.1.3.2.*

Note 2: Information concerning extinguishing agents is contained in the UNEP Halons Options Committee Technical Note 1, New Technology Halon Alternatives*, and FAA Report DOT/FAA/AR-99-63,* Options to the Use of Halons for Aircraft Fire Suppression Systems.

7.9.1.8 LAVATORY SMOKE DETECTOR

(a) [AOC] No person may operate a passenger-carrying aeroplane unless each lavatory in the aeroplane is equipped with a smoke detector system or equivalent that provides:

(1) A warning light on the flight deck; or

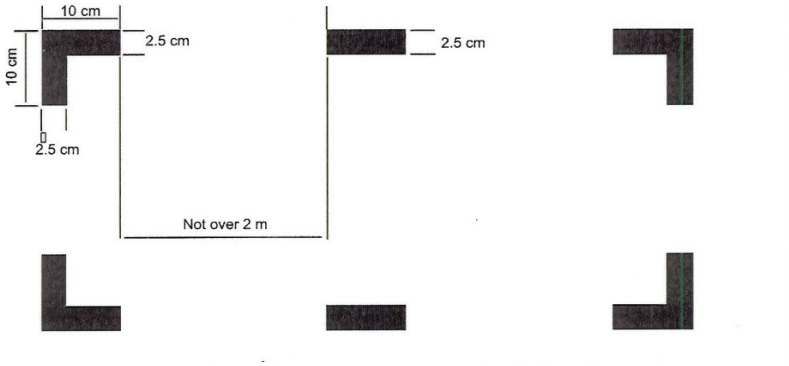
(2) A warning light or audio warning in the passenger cabin that shall be readily detected by a cabin crew member, taking into consideration the positioning of cabin crew members throughout the passenger compartment during various phases of flight.

7.9.1.9 CRASH AXE

(a) [AAC] No person shall operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg unless the aeroplane is equipped with a crash axe appropriate for effective use in that type of aeroplane, stored in a place not visible to passengers on the aeroplane.

7.9.1.10 MARKING OF BREAK-IN POINTS

(a) [AAC] If areas of the fuselage suitable for break-in by rescue crews in an emergency are marked on an aeroplane, such areas shall be marked as shown below, and the colour of the markings shall be red or yellow and, if necessary, they shall be outlined in white to contrast with the background.



(b) If the corner markings are more than 2 m (6.5 ft) apart, intermediate lines 9 cm (3.5 in) x 3 cm (1.2 in) shall be inserted so that there is no more than 2 m (6.5 ft) between adjacent markings.

7.9.1.11 FIRST AID KITS AND UNIVERSAL PRECAUTION KITS

(a) FIRST AID KITS.

(1) No person may operate an aircraft unless the aircraft is equipped with an accessible, approved first aid kit(s) and the contents of the first aid kit(s) comply with the requirements prescribed in IS 7.9.1.11.

(2) The contents of first aid kits to be carried shall comply with the requirements prescribed in IS 7.9.1.11.

(3) Each aircraft shall carry first aid kits in accordance with at least the following schedule:

Number of Passenger Seats	Number of First Aid Kits
0-100	1
101-200	2
201-300	3
301-400	4
401-500	5
More than 500	6

(4) The location of first aid kits shall be:

(i) Distributed evenly throughout the aircraft;

(ii) Readily accessible to cabin crew members, if cabin crew members are required for flight; and

(iii) Located near the aircraft exits, should their use be required outside the aircraft in an emergency situation.

(b) UNIVERSAL PRECAUTION KIT.

(1) No person shall operate an aircraft that requires a cabin crew member unless the aircraft is equipped with at least one universal precaution kit.

(2) The contents of universal precaution kits to be carried shall comply with the requirements prescribed in IS 7.9.1.11.

(3) Each aircraft shall carry universal precaution kits in accordance with the following:

(i) Two kits; and

(ii) Additional kits, as determined by the Authority, at times of increased public health risk, such as during an outbreak of a serious communicable disease having pandemic potential.

7.9.1.12 EMERGENCY MEDICAL KIT – AEROPLANES

(a) [AOC] No person may operate a passenger flight in an aeroplane with 30 seats or more unless the aeroplane is equipped with an approved emergency medical kit for treatment of injuries or medical emergencies that might occur during flight time or in minor accidents.

(b) [AOC] The contents of emergency medical kits to be carried shall comply with the requirements prescribed in IS 7.9.1.12.

(c) [AOC] The medical kit shall be stored in a secure location.

7.9.1.13 OXYGEN STORAGE AND DISPENSING APPARATUS

(a) [AAC] All aircraft intended to be operated at altitudes requiring the use of supplemental oxygen shall be equipped with adequate oxygen storage and dispensing apparatus.

(b) [AAC] The oxygen apparatus, the minimum rate of oxygen flow, and the supply of oxygen shall meet applicable airworthiness standards for type certification in the transport category as specified by the Authority.

(c) [AAC] No person may operate an aircraft at altitudes above 3 000 m (10 000 ft) unless the aircraft is equipped with oxygen masks, located so as to be within the immediate reach of flight crew members while at their assigned duty station.

(d) [AAC] No person may operate a pressurised aeroplane at altitudes above 7 600 m (25 000 ft) unless:

(1) Flight crew member oxygen masks are available at the flight duty station and are of a quick donning type;

(2) Sufficient spare outlets and masks and/or sufficient portable oxygen units with masks are distributed evenly throughout the cabin to ensure immediate availability of oxygen to each required cabin crew member regardless of his location at the time of cabin pressurisation failure.

(e) [AAC] An oxygen-dispensing unit connected to oxygen supply terminals shall be installed so as to be immediately available to each occupant, wherever seated. The total number of dispensing units and outlets shall exceed the number of seats by at least 10 per cent. The extra units are to be evenly distributed throughout the cabin.

(f) [AAC] The amount of supplemental oxygen for sustenance required for a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures established for each operation in the OM and with the routes to be flown, and with the emergency procedures specified in the OM.

(g) [AAC] The process to determine the amount of supplemental oxygen needed for non-pressurised and pressurised aircraft is contained in IS 7.9.1.13.

7.9.1.14 PROTECTIVE BREATHING EQUIPMENT

(a) [AOC] No AOC holder may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg or having a maximum approved seating configuration of more than 19 seats unless the aeroplane has:

(1) PBE to protect the eyes, nose, and mouth of each flight crew member while on flight deck duty and to provide oxygen for a period of not less than 15 minutes; and

(2) Sufficient portable PBE to protect the eyes, nose, and mouth of all required cabin crew members and to provide breathing gas for a period of not less than 15 minutes.

(b) [AOC] The oxygen supply for PBE may be provided by the required supplemental oxygen system.

(c) [AOC] The PBE intended for flight crew use shall be conveniently located on the flight deck and shall be easily accessible for immediate use by required flight crew members at their assigned duty station.

(d) [AOC] The PBE intended for cabin crew use shall be installed adjacent to each required cabin crew member duty station.

(e) [AOC] Easily accessible portable PBE shall be provided and located at or adjacent to the required hand fire extinguishers except that, where the fire extinguisher is located inside a cargo compartment, the PBE shall be stowed outside but adjacent to the entrance to that compartment.

(f) [AOC] The PBE while in use shall not prevent required communication.

7.9.1.15 FIRST AID OXYGEN DISPENSING UNITS

(a) [AOC] No AOC holder may conduct a passenger-carrying operation in a pressurised aeroplane at altitudes above 7 600 m (25 000 ft), when a cabin crew member is required to be carried, unless the aeroplane is equipped with:

(1) Undiluted first aid oxygen for passengers who, for physiological reasons, may require oxygen following a cabin depressurisation; and

(2) A sufficient number of dispensing units, but in no case less than two, with a means for cabin crew to use the supply.

(b) [AOC] The amount of first aid oxygen required in paragraph 7.9.1.15(a) of this subsection for a particular operation and route shall be determined on the basis of:

(1) Flight duration after cabin depressurisation at cabin altitudes of more than 2 438 m (8 000 ft);

(2) An average flow rate of at least 3 litres STPD/minute/person; and

(3) At least 2 per cent of the passengers carried, but in no case for less than one person.

(c) The amount of first aid oxygen required for a particular operation shall be determined on the basis of cabin pressure altitudes and flight duration, consistent with the operating procedures established for each operation and route.

(d) The oxygen equipment provided shall be capable of generating a mass flow to each user of at least 4 litres per minute, STPD. Means may be provided to decrease the flow to not less than 2 litres per minute, STPD, at any altitude.

7.9.1.16 MEGAPHONES

(a) [AOC] Each person operating a passenger-carrying aeroplane shall have a portable battery-powered megaphone or megaphones readily accessible to the crew members assigned to direct emergency evacuation.

(b) [AOC] The number and location of megaphones required in paragraph 7.9.1.16(a) of this subsection shall be determined as follows:

(1) On aeroplanes with a seating capacity of more than 60 and less than 100 passengers, one megaphone shall be located at the most rearward location in the passenger cabin where it would be readily accessible to a normal cabin crew member seat;

(2) On aeroplanes with a seating capacity of more than 99 passengers, two megaphones shall be installed in the passenger cabin: one shall be located at the forward end and the other shall be located at the most rearward location where it would be readily accessible to a normal cabin crew member seat; and

(3) For aeroplanes with more than one passenger deck, in all cases when the total passenger seating configuration of a deck is more than 60, at least one megaphone is required on the deck.

Note: The Authority may grant an exemption from the requirements of paragraph 7.9.1.16(b) of this part if the Authority finds that a different location will be more useful for evacuation of persons during an emergency.

7.9.1.17 INDIVIDUAL FLOTATION DEVICES

(a) LANDPLANES.

(1) [AAC] Landplanes shall carry the equipment prescribed in paragraph 7.9.1.17(a)(2) of this subsection:

(i) When flying en route over water beyond gliding distance from the shore;

(ii) When flying over water at a distance of more than 93 km (50 NM) away from the shore for aircraft capable of maintaining safe altitude after the failure of one engine for two-engine aircraft and the failure of two engines for three- or four-engine aircraft; or

(iii) When taking off or landing at an aerodrome where the Authority has determined the take-off or approach path is so disposed over water that in the event of a mishap there would be the likelihood of a ditching.

(2) [AAC] One life jacket or equivalent flotation device equipped with a means of electric illumination shall be carried for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(b) SEAPLANES.

(1) [AAC] For all flights, seaplanes shall be equipped with the equipment prescribed in paragraph 7.9.1.17(a)(2) of this subsection.

Note: Life jackets accessible from seats or berths located in crew rest compartments are required only if the seats or berths concerned are certified to be occupied during take-off and landing.

7.9.1.18 LIFE RAFTS

(a) [AAC] In addition to the equipment prescribed in 7.9.1.17 and 7.9.1.19 of this part, life rafts in sufficient numbers to carry all persons on board shall be installed in:

(1) Aeroplanes operated on long range overwater flights;

(2) All other aeroplanes when they are operated over water away from land suitable for making an emergency landing at a distance of more than 185 km (100 NM) in the case of single-engine aeroplanes, and more than 370 km (200 NM) in the case of multi-engine aeroplanes capable of continuing flight with one engine inoperative;

Note: Both 14 CFR and JAR-OPS 1 set the limit at 30 minutes or 100 NM away from land suitable for making an emergency landing.

(3) Class 1 and Class 2 helicopters when they are operated over water at a distance from land corresponding to more than 10 minutes at normal cruise speed; and

(4) Class 3 helicopters when they are operated over water beyond autorotational or safe forced landing distance from land.

(b) [AOC] An aircraft shall have life rafts with a sufficient capacity to carry all persons on board in the event of the loss of one raft of the largest capacity.

(c) All life rafts shall be stowed so as to facilitate their ready use in an emergency.

(d) Life rafts shall be equipped with the following life-sustaining equipment:

(1) An electric survivor locator light;

(2) A survival kit;

(3) A pyrotechnic signalling device; and

(4) An ELT. (Section 7.9.1.5 of this part provides additional requirements for first aid oxygen dispensing units.)

(e) [AOC] In helicopters, life rafts that are not deployable by remote control and that have a mass of more than 40 kg shall be equipped with a means of mechanically assisted deployment.

Note: The ELT requirement in paragraph 7.9.1.18(d)(4) of this part is an FAA requirement and not an ICAO Standard.

7.9.1.19 FLOTATION DEVICE FOR HELICOPTER DITCHING

(a) [AAC] All helicopters flying over water at a distance from land corresponding to more than 10 minutes at normal cruise speed in the case of performance Class 1 or Class 2 helicopters, or flying over water beyond autorotational or safe forced landing distance from land in the case of performance Class 3 helicopters, shall be fitted with a permanent or rapidly deployable means of floatation so as to ensure a safe ditching of the helicopter.

7.10 MISCELLANEOUS SYSTEMS AND EQUIPMENT

7.10.1.1 SEATS, SAFETY BELTS, AND SHOULDER HARNESSES

(a) [AAC] Each aircraft used in passenger-carrying operations shall be equipped with the following seats, safety belts, and shoulder harnesses that meet the airworthiness requirements for type certification of that aircraft:

(1) A seat with safety belt for each person on board over an age to be determined by Curaçao; and a restraining belt for each berth on board the aircraft.

(2) A safety harness for each flight crew member seat.

(i) The safety harness for each pilot seat shall incorporate a device that will automatically restrain the occupant's torso in the event of rapid deceleration.

(ii) The safety harness for each pilot seat, which includes shoulder straps and a seat belt, shall incorporate a restraining device to prevent a suddenly incapacitated pilot from interfering with the flight controls.

(3) A forward or rearward facing (within 15 degrees of the longitudinal axis of the aeroplane) seat equipped with a safety harness for each cabin crew member station in the passenger compartment.

(4) The cabin crew member seats shall be located near floor level and other emergency exits as required by the Authority for emergency evacuation.

7.10.1.2 PASSENGER AND PILOT COMPARTMENT DOORS – AEROPLANES

(a) [AOC] PILOT COMPARTMENT DOOR.

(1) No person may operate a passenger-carrying aeroplane of a maximum certificated take-off mass of over 45 500 kg (100 310 lbs) or with a passenger seating capacity greater than 60 unless that aircraft is equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons.

(2) No person may operate a passenger-carrying aeroplane having a certificated take-off mass of less than 45 500 kg (100 310 lbs) or with a passenger seating capacity of less than 60 unless that aircraft is equipped with an approved flight crew compartment door, where practicable, that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons.

(3) Each pilot compartment door shall be capable of being locked and unlocked from either pilot station.

(4) A means shall be provided for monitoring from either pilot station the entire door area outside the pilot compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

(b) [AOC] PASSENGER COMPARTMENT DOORS.

(1) Each passenger compartment door shall have:

(i) A means for the crew, in an emergency, to unlock each door that leads to a compartment that is normally accessible to passengers and that can be locked

by passengers;

(ii) A placard on each door used to access a required passenger emergency exit, indicating that such door shall be open during take-off and landing; and

(iii) A means readily available for each crew member to unlock any door that separates a passenger compartment from another compartment that has emergency exit provisions.

7.10.1.3 PASSENGER INFORMATION SIGNS

(a) [AOC] No person shall operate a passenger-carrying aeroplane with a maximum certificated take-off mass of 5 700 kg (12 500 lbs) or more unless the aeroplane is equipped with:

(1) At least one passenger information sign (using either letters or symbols) notifying when smoking is prohibited and one sign (using either letters or symbols) notifying when safety belts shall be fastened, and which shall, when illuminated, be legible to each person seated in the passenger cabin under all probable conditions of cabin illumination;

(2) Signs that notify when safety belts shall be fastened and when smoking is prohibited shall be so constructed that the crew can turn them on and off; and

(3) A sign or placard affixed to each forward bulkhead and each passenger seat back that reads “Fasten Seat Belt While Seated.”

(b) [AAC] Notwithstanding paragraph 7.10.1.3(a) of this subsection, no person shall operate an aircraft in which all passenger seats are not visible from the flight deck, unless the aircraft is equipped with a means of indicating to all passengers and cabin crew when seat belts shall be fastened and when smoking is not allowed.

7.10.1.4 MATERIALS FOR CABIN INTERIORS

(a) No person shall operate an aircraft unless each compartment used by the crew or passengers meets the following requirements of the State of Design:

(1) Materials shall be at least flash resistant;

(2) The wall and ceiling linings and the covering of upholstering, floors, and furnishings shall be flame resistant;

(3) Each compartment where smoking is to be allowed shall be equipped with self-contained ashtrays that are completely removable, and other compartments shall be placarded against smoking; and

(4) Each receptacle for used towels, papers, and wastes shall be of fire-resistant material and shall have a cover or other means of containing possible fires started in the receptacles.

(b) For aircraft for which the State of Design has developed new airworthiness requirements for cabin interiors since original type certification, the owner of the aircraft shall ensure that all materials that do not meet current State of Design requirements shall have them replaced upon the first major overhaul of the aircraft cabin or refurbishing of the cabin interior with materials that meet the new requirements.

7.10.1.5 MATERIALS FOR CARGO AND BAGGAGE COMPARTMENTS

(a) [AAC] Each cargo compartment shall have ceiling and sidewall liner panels that are constructed of materials that meet the test requirements for flame resistance of cargo compartment liners as prescribed for type certification.

Note: The term “liner” includes any design feature, such as a joint or fastener, that may affect the capability of the liner to safely contain fire.

7.10.1.6 POWER SUPPLY, DISTRIBUTION, AND INDICATION SYSTEM

(a) [AOC] No AOC holder may operate an aeroplane unless the aeroplane is equipped with:

(1) A power supply and distribution system that meets the airworthiness requirements for certification of an aeroplane in the transport category, as specified by the Authority; or

(2) A power supply and distribution system that is able to produce and distribute the load for the required instruments and equipment, with the use of an auxiliary power supply if any one power source or component of the power distribution system fails; and

Note: The use of common elements in the power system may be approved if the Authority finds that they are designed to be reasonably protected against malfunctioning.

(3) A means for indicating the adequacy of the power being supplied to required flight instruments.

(b) [AOC] Engine-driven sources of energy, when used, shall be redundant.

7.10.1.7 PROTECTIVE CIRCUIT FUSES

(a) [AOC] No person may operate an aeroplane in which protective fuses are installed unless there are spare fuses available of appropriate ratings for replacement of those accessible in flight.

7.10.1.8 ICING PROTECTION EQUIPMENT

(a) [AAC] No person may operate an aircraft in expected or actual icing conditions unless the aircraft is equipped for the prevention or removal of ice on windshields, wings, control surfaces, empennage, propellers, rotor blades, or other parts of the aircraft where ice formation will adversely affect the safety of the aircraft.

(b) [AAC] No person may operate an aircraft in expected or actual icing conditions at night unless the aircraft is equipped with a means to illuminate or detect the formation of ice. Any illumination that is used shall be of a type that will not cause glare or reflection that may handicap crew members in the performance of their duties.

7.10.1.9 PITOT HEAT AND INDICATION SYSTEMS

(a) [AAC] No person may operate an aircraft in instrument flight conditions unless the aircraft is equipped with a pitot heat system.

(b) [AOC] No AOC holder may operate an aeroplane equipped with a flight instrument pitot heating system unless the aeroplane is also equipped with an operable pitot heat indication system that complies with the following requirements:

(1) The indication provided shall incorporate an amber light that is in clear view of a flight crew member. The indication provided shall be designed to alert the flight crew if either:

(2) The pitot heating system is switched “off”; and

(3) The pitot heating system is switched “on” and any pitot tube heating element is inoperative; or

(4) An integrated flight crew alerting system that will notify the crew if the pitot system is malfunctioning.

7.10.1.10 STATIC PRESSURE SYSTEM

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with a static pressure system vented to the outside atmospheric pressure so that it will be least affected by airflow variation or moisture or other foreign matter, and installed so as to be airtight except for the vent.

(b) [AAC] No person may operate an aircraft in IFR or VFR at night unless the aircraft is equipped with a static pressure system vented to the outside atmospheric pressure so that it will be least affected by airflow variation or moisture or other foreign matter, and installed so as to be airtight except for

the vent, and a means of selecting an alternative source of static pressure.

(c) [AOC] No person may operate an aircraft unless the aircraft is equipped with two independent static pressure systems vented to the outside atmospheric pressure so that they will be least affected by airflow variation or moisture or other foreign matter and installed so as to be airtight except for the vent.

7.10.1.11 WINDSHIELD WIPERS

(a) [AOC] No AOC holder may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg unless the aeroplane is equipped at each pilot station with a windshield wiper or equivalent means to maintain a clear portion of the windshield during precipitation.

7.10.1.12 CHART HOLDER

(a) [AOC] No person may operate an aeroplane in commercial air transport operations under single-pilot IFR or at night unless a chart holder is installed in an easily readable position that can be illuminated for night operations.

7.10.1.13 COSMIC RADIATION DETECTION EQUIPMENT

(a) [AAC] No person shall operate an aeroplane intended to be operated above 15 000 m (49 000 ft) unless the aeroplane is equipped with:

(1) An instrument to measure and indicate continuously the dose rate of total cosmic radiation being received (i.e., the total of ionising and neutron radiation of galactic and solar origin) and the cumulative dose on each flight;

(2) A system of on-board quarterly radiation sampling acceptable to the Authority, as prescribed in IS 7.10.1.13; and

(3) A display unit readily visible to a flight crew member.

(b) The operator shall have the equipment in paragraph 7.10.1.13(a) of this subsection calibrated on the basis of assumptions acceptable to the Authority.

7.10.1.14 MARITIME SOUND SIGNALLING DEVICE

(a) [AAC] All seaplanes for all flights shall be equipped with equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea, where applicable.

7.10.1.15 ANCHORS

(a) [AAC] No person shall operate a seaplane unless the seaplane is equipped with:

(1) One anchor; and

(2) One sea anchor (drogue).

(b) *Note: "Seaplanes" includes amphibians operated as seaplanes.*

CURAÇAO CIVIL AVIATION REGULATIONS

PART 7 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 7.8.1.2 would reflect a standard required by 7.8.1.2 of this part.

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PART 7 – IMPLEMENTING STANDARDS

IS 7.2.1.7 CATEGORY II: INSTRUMENTS AND EQUIPMENT APPROVAL AND CONTINUING AIRWORTHINESS REQUIREMENTS

(a) GENERAL. The instruments and equipment required by 7.2.1.7 of this part shall be approved as provided in this IS before being used in CAT II operations. Before presenting an aircraft for approval of the instruments and equipment, it shall be shown that since the beginning of the 12th calendar month before the date of submission:

(1) The ILS localiser and glide slope equipment were bench checked according to the manufacturer's instructions and found to meet those standards specified in RTCA Paper 23-63/DO-177 dated 14 March 1963, *Standard Adjustment Criteria for Airborne Localizer and Glideslope Receivers*;

(2) The altimeters and the static pressure systems were tested and inspected; and

(3) All other instruments and items of equipment specified in 7.2.1.7 of this part that are listed in the proposed maintenance programme were bench checked and found to meet the manufacturer's specifications.

(b) FLIGHT CONTROL GUIDANCE SYSTEM. All components of the flight control guidance system shall be approved as installed by the evaluation programme specified in paragraph (e) of this IS if they have not been approved for CAT III operations under applicable type or supplemental type certification procedures. In addition, subsequent changes to make, model, or design of the components shall be approved under this paragraph. Related systems or devices, such as the autothrottle and computed missed approach guidance system, shall be approved in the same manner if they are to be used for CAT II operations.

(c) RADIO ALTIMETER. A radio altimeter shall meet the performance criteria of this paragraph for original approval and after each subsequent modification.

(1) The radio altimeter shall display to the flight crew clearly and positively the wheel height of the main landing gear above the terrain;

(2) The radio altimeter shall display wheel height above the terrain to an accuracy of 1.5 m (±5 ft) or 5 per cent, whichever is greater, under the following conditions:

(i) Pitch angles of zero to ±5° about the mean approach attitude;

(ii) Roll angles of zero to 20° in either direction;

(iii) Forward velocities from minimum approach speed up to 200 knots; or

(iv) Sink rates from zero to 5 m (15 ft) per second at altitudes from 31 m (100 ft) to 61 m (200 ft).

(3) Over level ground, the radio altimeter shall track the actual altitude of the aircraft without significant lag or oscillation;

(4) With the aircraft at an altitude of 61 m (200 ft) or less, any abrupt change in terrain representing no more than 10 per cent of the aircraft's altitude shall not cause the altimeter to unlock, and indicator response to such changes shall not exceed 0.1 seconds and, in addition, if the system unlocks for greater changes, it shall reacquire the signal in less than 1 second;

(5) Systems that contain a push-to-test feature shall test the entire system (with or without an antenna) at a simulated altitude of less than 152 m (500 ft;) and

(6) The system shall provide to the flight crew a positive failure warning display any time there is a loss of power or an absence of ground return signals within the designed range of operating altitudes.

(d) OTHER INSTRUMENTS AND EQUIPMENT. All other instruments and items of equipment required by 7.2.1.7 of this part shall be capable of performing as necessary for CAT II operations. Approval is also required after each subsequent modification to these instruments and items of equipment.

(e) EVALUATION PROGRAMME.

(f) APPLICATION. Approval by evaluation is requested as a part of the application for approval of the CAT II manual.

(g) DEMONSTRATIONS. Unless otherwise authorised by the Authority, the evaluation programme for each aircraft requires the demonstrations specified in this paragraph. At least 50 ILS approaches shall be flown with at least 5 approaches on each of 3 different ILS facilities and no more than one-half of the total approaches on any one ILS facility. All approaches shall be flown under simulated instrument conditions to a 30 m (100 ft) DH and 90 per cent of the total approaches made shall be successful. A successful approach is one in which:

(1) At the 30 m (100 ft) DH, the indicated airspeed and heading are satisfactory for a normal flare and landing (speed shall be ±5 knots of programmed airspeed, but may not be less than computed threshold speed if autothrottles are used);

(2) The aircraft, at the 30 m (100 foot) DH, is positioned so that the flight deck is within, and tracking so as to remain within, the lateral confines of the runway extended;

(3) Deviation from glide slope after leaving the outer marker does not exceed 50 per cent of full-scale deflection as displayed on the ILS indicator;

(4) No unusual roughness or excessive attitude changes occur after leaving the middle marker; and

(5) In the case of an aircraft equipped with an approach coupler, the aircraft is sufficiently in trim when the approach coupler is disconnected at the DH to allow for the continuation of a normal approach and landing.

(h) RECORDS. During the evaluation programme, the following information shall be maintained by the applicant for the aircraft with respect to each approach and shall be made available to the Authority upon request:

(1) Each deficiency in airborne instruments and equipment that prevented the initiation of an approach;

(2) The reasons for discontinuing an approach, including the altitude above the runway at which it was discontinued;

(3) Speed control at the 30 m (100 ft) DH if autothrottles are used;

(4) Trim condition of the aircraft upon disconnecting the auto coupler with respect to continuation to flare and landing;

(5) Position of the aircraft at the middle marker and at the DH indicated both on a diagram of the basic ILS display and a diagram of the runway extended to the middle marker. Estimated touchdown point shall be indicated on the runway diagram;

(6) Compatibility of the flight director with the auto coupler, if applicable; and

(7) Quality of overall system performance.

(i) EVALUATION. A final evaluation of the flight control guidance system is made upon successful completion of the demonstrations. If no hazardous tendencies have been displayed or are otherwise known to exist, the system is approved as installed.

(j) Each maintenance programme for CAT II instruments and equipment shall contain the following:

(1) A list of each instrument and item of equipment specified in 7.2.1.7 of this part that is installed in the aircraft and approved for CAT II operations, including the make and model of those specified in paragraph 7.2.1.7(a)(1) of this part;

(2) A schedule that provides for the performance of inspections under paragraph (5) of this IS within 3 calendar months after the date of the previous inspection. The inspection shall be performed by a person authorised by Part 5 of these regulations, except that each alternate inspection may be replaced by a functional flight check. This functional flight check shall be performed by a pilot holding a CAT II pilot authorisation for the type aircraft checked;

(3) A schedule that provides for the performance of bench checks for each listed instrument and item of equipment that is specified in paragraph 7.2.1.7(a)(1) of this part within 12 calendar months after the date of the previous bench check;

(4) A schedule that provides for the performance of a test and inspection of each static pressure system within 12 calendar months after the date of the previous test and inspection;

(5) The procedures for the performance of the periodic inspections and functional flight checks to determine the ability of each listed instrument and item of equipment specified in paragraph 7.2.1.7(a)(1) of this part to perform as approved for CAT II operations, including a procedure for recording functional flight checks;

(6) A procedure for assuring that the pilot is informed of all defects in listed instruments and items of equipment;

(7) A procedure for assuring that the condition of each listed instrument and item of equipment upon which maintenance is performed is at least equal to its CAT II approval condition before it is returned to service for CAT II operations; and

(8) A procedure for an entry in the continuing airworthiness records that shows the date, aerodrome, and reasons for each discontinued CAT II operation because of a malfunction of a listed instrument or item of equipment.

(k) BENCH CHECK. A bench check required by this section shall comply with this paragraph.

(1) Except as specified in paragraph (k)(2) of this IS, the bench check shall be performed by an AMO holding one of the following ratings as appropriate to the equipment checked:

(i) An instrument rating; or

(ii) An avionics rating.

(2) The bench check shall be performed by a certificated air operator on aircraft identified in its approved operations specifications with the approved authorisations to perform maintenance and approve for return to service its own aircraft maintained under a continuing airworthiness maintenance programme under an equivalent system identified in Part 9 of these regulations.

(3) The bench check shall consist of removal of an instrument or item of equipment and performance of the following:

(i) A visual inspection for cleanliness, impending failure, and the need for lubrication, repair, or replacement of parts;

(ii) Correction of items found by that visual inspection; and

(iii) Calibration to at least the manufacturer's specifications unless otherwise specified in the approved CAT II Manual for the aircraft in which the instrument or item of equipment is installed.

(l) EXTENSIONS. After the completion of one maintenance cycle of 12 calendar months, a request to extend the period for checks, tests, and inspections is approved if it is shown that the performance of particular equipment justifies the requested extension.

IS 7.4.1.4 REDUCED VERTICAL SEPARATION MINIMUM – ALTIMETRY SYSTEM PERFORMANCE REQUIREMENTS FOR OPERATIONS IN REDUCED VERTICAL SEPARATION MINIMUM AIRSPACE

(a) With respect to groups of aeroplanes that are nominally of identical design and build with respect to all details that may influence the accuracy of height-keeping performance, the height-keeping performance capability shall be such that the TVE for the group of aeroplanes shall have a mean no greater than 25 m (80 ft) in magnitude and shall have a standard deviation no greater than $28 – 0.013z^2$ for $0 \leq z \leq 25$ when z is the magnitude of the mean TVE in metres, or $92 – 0.004z^2$ for $0 \leq z \leq 80$ where z is in feet. In addition, the components of TVE shall have the following characteristics:

(1) The mean ASE of the group shall not exceed 25 m (80 ft) in magnitude;

(2) The sum of the absolute value of the mean ASE and of three standard deviations of ASE shall not exceed 75 m (245 ft); and

(3) The differences between cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and, in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

(b) With respect to aeroplanes for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aeroplanes encompassed by paragraph (a) of this IS, the height-keeping performance capability shall be such that the components of the TVE of the aeroplane have the following characteristics:

(1) The ASE of the aeroplane shall not exceed 60 m (200 ft) in magnitude under all flight conditions; and

(2) The differences between the cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and, in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

IS 7.8.1.2 CONSTRUCTION AND INSTALLATION

(a) The following requirements shall apply to an ADFR:

(1) Deployment shall take place when the aeroplane structure has been significantly deformed;

(2) Deployment shall take place when an aeroplane sinks in water;

(3) The ADFR shall not be capable of manual deployment;

(4) The ADFR shall be able to float on water;

(5) The ADFR deployment shall not compromise the safe continuation of the flight;

(6) The ADFR deployment shall not significantly reduce the chance of survival of the recorder and of successful transmission by its ELT;

(7) The ADFR deployment shall not release more than one piece;

(8) An alert shall be made to the flight crew when the ADFR is no longer captive to the aircraft;

(9) The flight crew shall have no means to disable ADFR deployment when the aircraft is airborne;

(10) The ADFR shall contain an integrated ELT, which shall activate automatically during the deployment sequence. Such ELT may be of a type that is activated in-flight and provides information from which a position can be determined; and

(11) The integrated ELT of an ADFR shall satisfy the same requirements as an ELT required to be installed on an aeroplane. The integrated ELT shall at least have the same performance as the fixed ELT to maximise detection of the transmitted signal.

Note 1: Refer to ICAO Doc 10054, Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery*, for more information on ADFR.*

Note 2: If an integrated ELT of a type that is activated in flight is used within an ADFR, it may be a means to comply with the requirements prescribed in 7.7.1.9 of this part.

IS 7.8.1.4 CONTINUED SERVICEABILITY AND INSPECTION OF FLIGHT RECORDER SYSTEMS

(a) The operator shall, prior to the first flight of the day, monitor the built-in test features for the flight recorders and flight data acquisition unit, when installed, by manual and/or automatic checks.

(b) FDR systems or ADRS, CVR systems or CARS, and AIR systems or AIRS shall have recording inspection intervals of 1 year; subject to the approval from the Authority, this period may be extended to 2 years provided these systems have demonstrated a high integrity of serviceability and self-monitoring. DLR systems or DLRS shall have recording inspection intervals of 2 years; subject to the approval from the Authority, this period may be extended to 4 years provided these systems have demonstrated high integrity of serviceability and self-monitoring.

(c) The operator shall carry out inspections as follows:

(1) An analysis of the recorded data from the flight recorders shall ensure that the recorder operates correctly for the nominal duration of the recording;

(2) The FDR or ADRS recording from a complete flight shall be examined in engineering units to evaluate the validity of all recorded parameters. Particular attention shall be given to parameters from sensors dedicated to the FDR or ADRS. Parameters taken from the aircraft's electrical bus system need not be checked if their serviceability can be detected by other aircraft systems;

(3) The readout facility shall have the necessary software to accurately convert the recorded values to engineering units and to determine the status of discrete signals;

(4) An examination of the recorded signal on the CVR or the CARS shall be carried out by replay of the CVR or CARS recording. While installed in the aircraft, the CVR or CARS shall record test signals from each aircraft source and from relevant external sources to ensure that all required signals meet intelligibility standards;

(5) Where practicable, during the examination, a sample of in-flight recordings of the CVR or CARS shall be examined for evidence that the intelligibility of the signal is acceptable; and

(6) An examination of the recorded images on the AIR or AIRS shall be carried out by replay of the AIR or AIRS recording. While installed in the aircraft, the AIR or AIRS shall record test images from each aircraft source and from relevant external sources to ensure that all required images meet recording quality standards.

(7) An examination of the recorded messages on the DLR or DLRS shall be carried out by replay of the DLR or DLRS recording.

(d) A flight recorder system shall be considered unserviceable if there is a significant period of poor quality data, unintelligible signals, or if one or more of the mandatory parameters is not recorded correctly.

(e) The operator shall make available a report of the recording inspection on request to Authorities for monitoring purposes.

(f) Calibration of the FDR system:

(1) For those parameters that have sensors dedicated only to the FDR and are not checked by other means, recalibration shall be carried out at an interval determined by the continuing airworthiness information for the FDR system. In the absence of such information, a recalibration shall be carried out at least every 5 years. The recalibration shall determine any discrepancies in the engineering conversion routines for the mandatory parameters and ensure that parameters are being recorded within the calibration tolerances; and

(2) When the parameters of altitude and airspeed are provided by sensors that are dedicated to the FDR system, there shall be a recalibration performed at an interval determined by the continuing airworthiness information for the FDR system. In the absence of such information, a recalibration shall be carried out at least every 2 years.

IS 7.8.2.1(A) FLIGHT DATA RECORDERS: TYPES AND PARAMETERS – AEROPLANE

(a) PARAMETERS – GENERAL.

(1) The parameters that satisfy the requirements for FDRs are listed in table 1.

(2) The number of parameters to be recorded shall depend on aeroplane complexity.

(3) The parameters without an asterisk (*) are mandatory parameters that shall be recorded regardless of aeroplane complexity.

(4) The parameters designated by an asterisk (*) shall be recorded if an information data source for the parameter is used by aeroplane systems or the flight crew to operate the aeroplane. However, other parameters may be substituted with due regard to the aeroplane type and the characteristics of the recording equipment.

(b) If further FDR recording capacity is available, recording of the following additional information shall be considered:

(1) Operational information from electronic display systems, such as EFIS, ECAM, and EICAS. Use the following order of priority:

(i) Parameters selected by the flight crew relating to the desired flight path (e.g., barometric pressure setting, selected altitude, selected airspeed, DH, and autoflight system engagement and mode indications if not recorded from another source);

(ii) Display system selection/status (e.g., SECTOR, PLAN, ROSE, NAV, WXR, COMPOSITE, COPY);

(iii) Warnings and alerts; and

(iv) The identity of displayed pages for emergency procedures and checklists.

(2) Retardation information including brake application for use in the investigation of landing overruns and rejected take-offs.

(c) ALL FLIGHT DECK FLIGHT CONTROL FORCES*. Control wheel, control column, rudder pedal flight deck input forces

(d) VERTICAL DEVIATION*. ILS glide path, MLS elevation, GNSS approach path

(e) HORIZONTAL DEVIATION*. ILS localiser, MLS azimuth, GNSS approach path

(f) DME 1 and 2 distances*

(g) PRIMARY NAVIGATION SYSTEM REFERENCE*. GNSS, INS, VOR/DME, MLS, Loran C, ILS

(h) BRAKES*. Left and right brake pressure, left and right brake pedal position

(i) Date*

(j) Event marker*

(k) Head up display in use*

(l) Para visual display on*

Note: It is not intended that aeroplanes issued with an individual certificate of airworthiness before 01 January 2016 be modified to meet the range, sampling, accuracy or resolution guidance detailed in this IS.

(m) PARAMETERS – FLIGHT PATH AND SPEED AS DISPLAYED TO THE PILOT(S). The parameters that satisfy the requirements for flight path and speed as displayed to the pilot(s) are listed below. The parameters without an asterisk (*) are mandatory parameters that shall be recorded. In addition, the parameters designated by an asterisk (*) shall be recorded if an information source for the parameter is displayed to the pilot(s) and is practicable to record:

(1) Pressure altitude

(2) Indicated airspeed or calibrated airspeed

(3) Heading (primary flight crew reference)

(4) Pitch attitude

(5) Roll attitude

(6) Engine thrust/power

(7) Landing gear status*

(8) Total or outside air temperature*

(9) Time*

(10) Navigation data*: drift angle, wind speed, wind direction, latitude/longitude

(11) Radio altitude*

(n) The parameters that satisfy the requirements for ADRS are listed in IS 7.8.2.2.

Table 1. Parameter Characteristics for Flight Data Recorders – Aeroplanes

The first 16 (or 15) parameters satisfy the requirements for a Type II and Type IIA FDR.
The first 32 parameters satisfy the requirements for a Type I FDR.
The total 78 parameters satisfy the requirements for a Type IA FDR.

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
1	Time (UTC when available, otherwise relative time count or GNSS sync)		24 hours	4	±0.125%/h	1 s
2	Pressure altitude		-300 m (-1 000 ft) to maximum certificated altitude of aircraft +1 500 m (+5 000 ft)	1	±30 m to ±200 m (±100 ft to ±700 ft)	1.5 m (5 ft)
3	Indicated airspeed or calibrated airspeed		95 km/h (50 kt) to max V_{So} (*Note 1*) V_{So} to 1.2 V_D (*Note 2*)	1	±5% ±3%	1 kt (0.5 kt recommended)
4	Heading (primary flight crew reference)		360°	1	±2°	0.5°
5	Normal acceleration (*Note 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	-3 g to +6 g	0.125	±1% of maximum range excluding datum error of ±5%	0.004 g
		Application for type certification submitted to a Contracting State on or after 01 January 2016	-3 g to +6 g	0.0625	±1% of maximum range excluding datum error of ±5%	0.004 g
6	Pitch attitude		±75° or usable range, whichever is greater	0.25	±2°	0.5°
7	Roll attitude		±180°	0.25	±2°	0.5°
8	Radio transmission keying		On-off (one discrete)	1		
9	Power on each engine (*Note 3*)		Full range	1 (per engine)	±2%	0.2% of full range or the resolution required to operate the aircraft

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
10*	Trailing edge flap and flight deck control selection		Full range or each discrete position	2	±5% or as pilot's indicator	0.5% of full range or the resolution required to operate the aircraft
11*	Leading edge flap and flight deck control selection		Full range or each discrete position	2	±5% or as pilot's indicator	0.5% of full range or the resolution required to operate the aircraft
12*	Thrust reverser position		Stowed, in transit, and reverse	1 (per engine)		
13*	Ground spoiler/speed brake selection (selection and position)		Full range or each discrete position	1	±2% unless higher accuracy uniquely required	0.2% of full range
14	Outside air temperature		Sensor range	2	±2˚C	0.3˚C
15*	Autopilot/autothrottle/ AFCS mode and engagement status		A suitable combination of discretes	1		
16	Longitudinal acceleration (*Note 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	±1 g	0.25	±0.015 g excluding a datum error of ±0.05 g	0.004 g
		Application for type certification submitted to a Contracting State on or after 01 January 2016	±1 g	0.0625	±0.015 g excluding a datum error of ±0.05 g	0.004 g
17	Lateral acceleration (*Note 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	±1 g	0.25	±0.015 g excluding a datum error of ±0.05 g	0.004 g
		Application for type certification submitted to a Contracting State on or after 01 January 2016	±1 g	0.0625	±0.015 g excluding a datum error of ±0.05 g	0.004 g
18	Pilot input and/or control surface position-primary controls (pitch, roll, yaw) (*Notes 4 and 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	Full range	0.25	±2° unless higher accuracy uniquely required	0.2% of full range or as installed

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
		Application for type certification submitted to a Contracting State on or after 01 January 2016	Full range	0.125	±2° unless higher accuracy uniquely required	0.2% of full range or as installed
19	Pitch trim position		Full range	1	±3% unless higher accuracy uniquely required	0.3% of full range or as installed
20*	Radio altitude		-6 m to 750 m (–20 ft to 2 500 ft)	1	±0.6 m (±2 ft) or ±3% whichever is greater below 150 m (500 ft) and ±5% above 150 m (500 ft)	0.3 m (1 ft) below 150 m (500 ft); 0.3 m (1 ft) + 0.5% of full range above 150 m (500 ft)
21*	Vertical beam deviation (ILS/GNSS/GLS glide path, MLS elevation, IRNAV/IAN vertical deviation)		Signal range	1	±3%	0.3% of full range
22*	Horizontal beam deviation (ILS/GNSS/GLS localiser, MLS azimuth, IRNAV/IAN lateral deviation)		Signal range	1	±3%	0.3% of full range
23	Marker beacon passage		Discrete	1		
24	Master warning		Discrete	1		
25	Each NAV receiver frequency selection (*Note 5*)		Full range	4	As installed	
26*	DME 1 and 2 distance (includes Distance to runway threshold (GLS) and Distance to missed approach point (IRNAV/IAN) (*Notes 5 and 6*)		0 – 370 km (0 – 200 NM)	4	As installed	1 852 m (1 NM)
27	Air/ground status		Discrete	1		
28*	GPWS/TAWS/GCAS status (selection of terrain display mode including pop-up display status) and (terrain alerts, both cautions and warnings, and advisories) and (on/off switch position)		Discrete	1		

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
29*	Angle of attack		Full range	0.5	As installed	0.3% of full range
30*	Hydraulics, each system (low pressure)		Discrete	2		0.5% of full range
31*	Navigation data (latitude/longitude, ground speed, and drift angle) (*Note 7*)		As installed	1	As installed	
32*	Landing gear and gear selector position		Discrete	4	As installed	
33*	Groundspeed		As installed	1	Data shall be obtained from the most accurate system	1 kt
34	Brakes (left and right brake pressure, left and right brake pedal position)		(Maximum metered brake range, discretes or full range)	1	±5%	2% of full range
35*	Additional engine parameters (EPR, N_1, indicated vibration level, N_2, EGT, fuel flow, fuel cut-off lever position, N_3, engine fuel metering valve position)	Engine fuel metering valve position: Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	Each engine each second	As installed	2% of full range
36*	TCAS/ACAS (traffic alert and collision avoidance system)		Discretes	1	As installed	
37*	Wind shear warning		Discrete	1	As installed	
38*	Selected barometric setting (pilot, co-pilot)		As installed	64	As installed	0.1 mb (0.01 in-Hg)
39*	Selected altitude (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
40*	Selected speed (all pilot selectable modes of operations)		As installed	1	As installed	Sufficient to determine crew selection
41*	Selected Mach (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
42*	Selected vertical speed (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
43*	Selected heading (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
44*	Selected flight path (all pilot selectable modes of operation) (course/DSTRK, path angle, final approach path (IRNAV/IAN))			1	As installed	
45*	Selected DH		As installed	64	As installed	Sufficient to determine crew selection
46*	EFIS display format (pilot, co-pilot)		Discrete(s)	4	As installed	
47*	Multi-function/engine/alerts display format		Discrete(s)	4	As installed	
48*	AC electrical bus status		Discrete(s)	4	As installed	
49*	DC electrical bus status		Discrete(s)	4	As installed	
50*	Engine bleed valve position		Discrete(s)	4	As installed	
51*	APU bleed valve position		Discrete(s)	4	As installed	
52*	Computer failure		Discrete(s)	4	As installed	
53*	Engine thrust command		As installed	2	As installed	
54*	Engine thrust target		As installed	4	As installed	2% of full range
55*	Computed CG		As installed	64	As installed	1% of full range
56*	Fuel quantity in CG trim tank		As installed	64	As installed	1% of full range
57*	HUD in use		As installed	4	As installed	
58*	Paravisual display on/off		As installed	1	As installed	
59*	Operational stall protection, stick shaker, and pusher activation		As installed	1	As installed	
60*	Primary navigation system reference (GNSS, INS, VOR/DME, MLS, LORAN C, localiser glideslope)		As installed	4	As installed	
61*	Ice detection		As installed	4	As installed	
62*	Engine warning each engine vibration		As installed	1	As installed	
63*	Engine warning each engine over temperature		As installed	1	As installed	
64*	Engine warning each engine oil pressure low		As installed	1	As installed	
65*	Engine warning each engine over speed		As installed	1	As installed	

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
66*	Yaw trim surface position		Full range	2	±3% unless higher accuracy uniquely required	0.3% of full range
67*	Roll trim surface position		Full range	2	±3% unless higher accuracy uniquely required	0.3% of full range
68*	Yaw or sideslip angle		Full range	1	±5%	0.5°
69*	De-icing and/or anti-icing systems selection		Discrete(s)	4		
70*	Hydraulic pressure (each system)		Full range	2	±5%	100 psi
71*	Loss of cabin pressure		Discrete	1		
72*	Flight deck trim control input position, Pitch		Full range	1	±5%	0.2% of full range or as installed
73*	Flight deck trim control input position, Roll		Full range	1	±5%	0.2% of full range or as installed
74*	Flight deck trim control input position, Yaw		Full range	1	±5%	0.2% of full range or as installed
75*	All flight deck flight control input forces (control wheel, control column, rudder pedal)		Full range (±311 N (±70 lbf), ±378 N (±85 lbf), ±734 N (±165 lbf))	1	±5%	0.2% of full range or as installed
76*	Event marker		Discrete	1		
77*	Date		365 days	64		
78*	ANP or EPE or EPU		As installed	4	As installed	
79*	Cabin pressure altitude	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed (0 m (0 ft) to 12 192 m (40 000 ft) recommended)	1	As installed	31 m (100 ft)
80*	Aeroplane computed weight	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	64	As installed	1% of full range
81*	Flight director command	Application for type certification submitted to a Contracting State on or after 01 January 2023	Full range	1	± 2°	0.5°

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
82*	Vertical speed	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	0.25	As installed (32 ft/min recommended)	16 ft/min

Note 1: V_{So} stalling speed or minimum steady flight speed in the landing configuration.

Note 2: V_D design diving speed.

Note 3: Record sufficient inputs to determine power.

Note 4: For aeroplanes with control systems in which movement of a control surface will back drive the pilot's control, ''or'' applies. For aeroplanes with control systems in which movement of a control surface will not back drive the pilot's control, "and'' applies. In aeroplanes with split surfaces, a suitable combination of inputs is acceptable in lieu of recording each surface separately. In aeroplanes with independent pilot input on primary controls, each pilot input on primary controls needs to be recorded separately.

Note 5: If signal available in digital form.

Note 6: Recording of latitude and longitude from INS or other navigation system is a preferred alternative.

Note 7: If signals readily available.

Note 8: It is not intended that aeroplanes issued with an individual certificate of airworthiness before 01 January 2016 be modified to meet the measurement range, maximum sampling and recording interval, accuracy limits, or recording resolution description detailed in IS 7.8.2.1(A).

IS 7.8.2.1(B) FLIGHT DATA RECORDERS AND AIRCRAFT DATA RECORDING SYSTEMS: TYPES AND PARAMETERS – HELICOPTERS

(a) The parameters that satisfy the requirements for FDRs are listed in table 2. The number of parameters to be recorded shall depend on helicopter complexity. The parameters without an asterisk (*) are mandatory parameters that shall be recorded. The parameters designated by an asterisk (*) shall also be recorded if an information data source for an asterisked parameter is used by helicopter systems or the flight crew to operate the helicopter. However, other parameters may be substituted with due regard to the helicopter type and the characteristics of the recording equipment.

(b) The following parameters satisfy the requirements for flight path and speed:

(1) Pressure altitude

(2) Indicated airspeed

(3) Outside air temperature

(4) Heading

(5) Normal acceleration

(6) Lateral acceleration

(7) Longitudinal acceleration (body axis)

(8) Time or relative time count

(9) Navigation data*: drift angle, wind speed, wind direction, latitude/longitude

(10) Radio altitude*

(c) If further FDR recording capacity is available, recording of the following additional information shall be considered:

(1) Additional operational information from electronic displays, such as EFIS, ECAM, and EICAS; and

(2) Additional engine parameters (EPR, N_1, fuel flow, etc.).

(d) The parameters that satisfy the requirements for ADRS are listed in IS 7.8.2.2.

Table 2. Parameter Characteristics for Flight Data Recorders – Helicopters

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
1	Time (UTC when available, otherwise relative time count or GNSS time sync)		24 hours	4	±0.125%/h	1 s
2	Pressure altitude		-300 m (–1 000 ft) to maximum certificated altitude of aircraft +1 500 m (+5 000 ft)	1	±30 m to ±200 m (±100 ft to ±700 ft)	1.5 m (5 ft)
3	Indicated airspeed		As the installed pilot display measuring system	1	±3%	1 kt
4	Heading		360°	1	± 2˚	0.5˚
5	Normal acceleration		-3 g to +6 g	0.125	±0.09 g excluding a datum error of ±0.045 g	0.004 g
6	Pitch attitude		±75˚ or 100% of usable range, whichever is greater	0.5	± 2˚	0.5˚
7	Roll attitude		±180˚	0.5	±2˚	0.5˚
8	Radio transmission keying		On-off (one discrete)	1	---	---
9	Power on each engine		Full range	1 (per engine)	±2%	0.1% of full range
10	Main rotor					
	Main rotor speed		50% – 130%	0.51	±2%	0.3% of full range
	Rotor brake		Discrete		---	---
11	Pilot input and/or control surface position-primary controls (Collective pitch, longitudinal cyclic pitch, lateral cyclic pitch, tail rotor pedal)		Full range	0.5 (0.25 recommended)	±2% unless higher accuracy uniquely required	0.5% of operating range
12	Hydraulics, each system (low pressure and selection)		Discrete	1	---	---
13	Outside air temperature		Sensor range	2	±2˚C	0.3˚C
14*	Autopilot/autothrottle /AFCS mode and engagement status		A suitable combination of discretes	1	---	---
15*	Stability		Discrete	1	---	---

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
	augmentation system engagement					
16*	Main gearbox oil pressure		As installed	1	As installed	6.895 kN/m^2 (1 psi)
17*	Main gearbox oil temperature		As installed	2	As installed	1˚C
18	Yaw acceleration (or yaw rate)		±400˚/second	0.25	±1.5% max range excluding datum error of ±5%	±2˚/s
19*	Sling load force		0 to 200% of certified load	0.5	±3% of max range	0.5% for maximum certified load
20	Longitudinal acceleration		±1 g	0.25	±0.015 g excluding datum error of ± 0.05 g	0.0004 g
21	Lateral acceleration		±1 g	0.25	±0.015 g excluding datum error of ± 0.05 g	0.0004 g
22*	Radio altitude		-6 m to 750 m (–20 ft to 2 500 ft)	1	±0.6 m (±2 ft) or ±3% whichever is greater below 150 m (500 ft) and ±5% above 150 m (500 ft)	0.3 m (1ft) below 150 m (500 ft), 0.3 m (1 ft) + 0.5% of full range above 150 m (500 ft)
23*	Vertical beam deviation		Signal range	1	±3%	0.3% of full range
24*	Horizontal beam deviation		Signal range	1	±3%	0.3% of full range
25	Marker beacon passage		Discrete	1	---	---
26	Warnings		Discrete(s)	1	---	---
27	Each navigation receiver frequency selection		Sufficient to determine selected frequency	4	As installed	----
28*	DME 1 and 2 distance		0 – 370 km (0 – 200 NM)	4	As installed	1 852 m (1 NM)
29*	Navigation data (latitude/longitude, ground speed, drift angle, wind speed, wind direction)		As installed	2	As installed	As installed
30*	Landing gear or gear selector position		Discrete	4	---	---

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
31*	Engine exhaust gas temperature (T_4)		As installed	1	As installed	
32*	Turbine inlet temperature (TIT/ITT)		As installed	1	As installed	
33*	Fuel contents		As installed	4	As installed	
34*	Altitude rate		As installed	1	As installed	
35*	Ice detection		As installed	4	As installed	
36*	Helicopter health and usage monitor system		As installed	——	As installed	
37	Engine control modes		Discrete	1	-----	-----
38*	Selected barometric setting (pilot and co-pilot)		As installed	64	As installed	0.1 mb (0.01 in Hg)
39*	Selected altitude (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
40*	Selected speed (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
41*	Selected Mach (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
42*	Selected vertical speed (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
43*	Selected heading (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
44*	Selected flight path (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
45*	Selected DH		As installed	4	As installed	Sufficient to determine crew selection
46*	EFIS display format (pilot and co-pilot)		Discrete(s)	4	---	---
47*	Multi-function/engine/alerts display format		Discrete(s)	4	---	---
48*	Event marker		Discrete	1	---	---

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
49*	GPWS/TAWS/ GCAS status (selection of terrain display mode including pop-up display status) and (terrain alerts, both cautions and warnings, and advisories) and (on/off switch position) and (operational status)	Application for type certification submitted to a Contracting State on or after 01 January 2023	Discrete(s)	1	As installed	
50*	TCAS/ACAS (traffic alert and collision avoidance system) and (operational status)	Application for type certification submitted to a Contracting State on or after 01 January 2023	Discrete(s)	1	As installed	
51*	Primary flight controls – pilot input forces	Application for type certification submitted to a Contracting State on or after 01 January 2023	Full range	0.125 (0.0625 recommended)	± 3% unless higher accuracy is uniquely required	0.5% of operating range
52*	Computed centre of gravity	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	64	As installed	1% of full range
53*	Helicopter computed weight	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	64	As installed	1% of full range

IS 7.8.2.2 AIRCRAFT EQUIPAGE FOR OPERATION – AIRCRAFT DATA RECORDING SYSTEM

(a) ADRS shall be capable of recording, as appropriate to the aircraft, at least the essential (E) parameters listed in table 3.

(b) The measurement range, recording interval, and accuracy of parameters on installed equipment is usually verified by methods approved by the Authority.

(c) Documentation concerning parameter allocation, conversion equations, periodic calibration, and other serviceability/maintenance information shall be maintained by the operator. The documentation shall be sufficient to ensure that accident investigation authorities have the necessary information to read out the data in engineering units.

Table 3. Parameter Characteristics for Aircraft Data Recording Systems

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
1	(a) Heading (Magnetic or True)	±180˚	1	±2˚	0.5˚	Heading is preferred; if not available, yaw rate shall be recorded
	(b) Yaw rate	±300˚/s	0.25	±1% + drift of 360˚/h	2˚/s	
2	(a) Pitch attitude	±90˚	0.25	±2˚	0.5˚	Pitch attitude is preferred; if not available, pitch rate shall be recorded
	(b) Pitch rate	±300˚/s	0.25	±1% + drift of 360˚/h	2˚/s	
3	(a) Roll attitude	±180˚	0.25	±2˚	0.5˚	Roll attitude is preferred; if not available, roll rate shall be recorded
	(b) Roll rate	±300˚/s	0.25	±1% + drift of 360˚/h	2˚/s	
4	Positioning system:					
	(a) Time	24 hours	1	±0.5 s	0.1 s	UTC time preferred where available
	(b) Latitude/ longitude	Latitude: ±90˚ Longitude: ±180˚	2 (1 if available)	As installed (0.00015˚ recommended)	0.00005˚	--
	(c) Altitude	-300 m (-1 000 ft) to maximum certificated altitude of aeroplane +1 500 m (5 000 ft)	2 (1 if available)	As installed (±15 m (±50 ft) recommended)	1.5 m (5 ft)	--
	(d) Ground speed	0 – 1 000 kt	2 (1 if available)	As installed (±5 kt recommended)	1 kt	
	(e) Track	0 – 360˚	2 (1 if available)	As installed (±2˚ recommended)	0.5˚	
	(f) Estimated error	Available range	2 (1 if available)	As installed	As installed	Shall be recorded if readily available

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
5	Normal acceleration	-3 g to + 6 g (*)	0.25 (0.125 if available)	As installed (±0.09 g excluding a datum error of ±45 g recommended)	0.004 g	--
6	Longitudinal acceleration	±1 g (*)	0.25 (0.125 if available)	As installed (±0.015 g excluding a datum error of ±0.05 g recommended)	0.004 g	--
7	Lateral acceleration	±1 g (*)	0.25 (0.125 if available)	As installed (±0.015 g excluding a datum error of ±0.05 g recommended)	0.004 g	--
8	External static pressure (or pressure altitude)	34.4 mb (3.44 in-Hg) to 310.2 mb (31.02 in-Hg) or available sensor range	1	As installed (±1 mb (0.1 in-Hg) or ±30 m (±100 ft) to ±210 m (±700 ft) recommended)	0.1 mb (0.01 in-Hg) or 1.5 m (5 ft)	--
9	Outside air temperature (or total air temperature)	-50 to +90˚C or available sensor range	2	As installed (±2˚C recommended)	1˚C	--
10	Indicated air speed	As the installed pilot display measuring system or available sensor range	1	As installed (±3% recommended)	1 kt (0.5 kt recommended)	--
11	Engine RPM	Full range including overspeed condition	Each engine each second	As installed	0.2% of full range	--
12	Engine oil pressure	Full range	Each engine each second	As installed (5% of full range recommended)	2% of full range	--
13	Engine oil temperature	Full range	Each engine each second	As installed (5% of full range recommended)	2% of full range	--

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
14	Fuel flow or pressure	Full range	Each engine each second	As installed	2% of full range	--
15	Manifold pressure	Full range	Each engine each second	As installed	0.2% of full range	--
16	Engine thrust/ power/ torque parameters required to determine propulsive thrust/power*	Full range	Each engine each second	As installed	0.1% of full range	*Sufficient parameters (e.g., EPRN/N1 or torque/Np as appropriate to the particular engine shall be recorded to determine power in both normal and reverse thrust. A margin for possible overspeed shall be provided)
17	Engine gas generator speed (Ng)	0 – 150%	Each engine each second	As installed	0.2% of full range	--
18	Free power turbine speed (Nf)	0 – 150%	Each engine each second	As installed	0.2% of full range	--
19	Coolant temperature	Full range	1	As installed (±5˚C recommended)	1˚C	--
20	Main voltage	Full range	Each engine each second	As installed	1 Volt	--
21	Cylinder head temperature	Full range	Each cylinder each second	As installed	2% of full range	--
22	Flaps position	Full range or each discrete position	2	As installed	0.5˚	--
23	Primary flight control surface position	Full range	0.25	As installed	0.2% of full range	--
24	Fuel quantity	Full range	4	As installed	1% of full range	--
25	Exhaust gas temperature	Full range	Each engine each second	As installed	2% of full range	--

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
26	Emergency voltage	Full range	Each engine each second	As installed	1 Volt	--
27	Trim surface position	Full range or each discrete position	1	As installed	0.3% of full range	--
28	Landing gear position	Each discrete position*	Each gear every 2 seconds	As installed	--	*Where available, record up-and-locked and down-and-locked position
29	Novel/unique aircraft features	As required	As required	As required	As required	--

IS 7.8.4.1 DATA LINK RECORDER APPLICABILITY

(a) Messages applying to the applications listed in table 4 shall be recorded. Applications without the asterisk (*) are mandatory applications that shall be recorded regardless of the system complexity. Applications with an (*) shall be recorded only as far as is practicable given the architecture of the system.

(b) Descriptions of the applications for DLRs are contained in the table 4.

Table 4. Description of Applications for Data Link Recorders

Item No.	Application Type	Application Description	Recording Content
1	Data link initiation	This includes any applications used to log on to or initiate data link service. In FANS-1/A and ATN, these are ATS facilities notification (AFN) and context management (CM), respectively	C
2	Controller/pilot communication	This includes any application used to exchange requests, clearances, instructions, and reports between the flight crew and controllers on the ground. In FANS-1/A and ATN, this includes the CPDLC application. It also includes applications used for the exchange of oceanic (OCL) and departure clearances (DCL) as well as data link delivery of taxi clearances	C
3	Addressed surveillance	This includes any surveillance application in which the ground sets up contracts for delivery of surveillance data. In FANS-1/A and ATN, this includes the automatic dependent surveillance – contract (ADS-C) application. Where parametric data are reported within the message they shall be recorded within the message, they shall be recorded unless data from the same source are recorded on the FDR	C
4	Flight information	This includes any service used for delivery of flight information to specific aircraft. This includes, for example, data link aviation weather report service (D-METAR), data link automatic terminal service (D-ATIS),	C

Item No.	Application Type	Application Description	Recording Content
		digital Notice to Airmen (D-NOTAM) and other textual data link services	
5	Aircraft broadcast surveillance	This includes elementary and enhanced surveillance systems, as well as ADS-B output data. Where parametric data sent by the aircraft are reported within the message, they shall be recorded unless data from the same sources are recorded on the FDR	M*
6	Aeronautical operational control data	This includes any application transmitting or receiving data used for aeronautical operational control purposes	M*

Key:

C Complete contents recorded.

M Information that enables correlation to any associated records stored separately from the aircraft.

** Applications to be recorded only as far as is practicable given the architecture of the system.*

(c) DLC recording installation clarification is contained in table 5.

Table 5. Data Link Communications (DLC) Recording Installation Clarification

Rows	Date individual certificate of airworthiness was first issued	Date aircraft TC issued or modification for DLC equipment first approved	Date of activation for use of DLC equipment	DLC recording required	SARPs reference
1	On or after 01 January 2016	On or after 01 January 2016	On or after 01 January 2016	Yes	6.3.3.1.1
2	On or after 01 January 2016	Before 01 January 2016	On or after 01 January 2016	Yes	6.3.3.1.1
3	Before 01 January 2016	On or after 01 January 2016	On or after 01 January 2016	Yes	6.3.3.1.2
4	Before 01 January 2016	Before 01 January 2016	Before 01 January 2016	No	6.3.3.1.2
5	Before 01 January 2016	Before 01 January 2016	On or after 01 January 2016	No[1]	6.3.3.1.2 6.3.3.1.3

[1] Not required, but recommended

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Notes:

1. *Date individual certificate of airworthiness was first issued* is self-explanatory.
2. *Date aircraft TC issued or modification for DLC equipment first approved* is the date that allows the installation of DLC equipment on the aircraft and refers to the airworthiness approval of the installation of aircraft components such as the structural and wiring provisions with which the DLC equipment needs to be compliant. These airworthiness approvals are usually in a form of a TC, a supplemental TC, or an amended TC. It is not uncommon for original customers of an aircraft that have airworthiness approvals related to DLC capability, to choose not to install the DLC equipment or choose not to have it activated even if the aircraft is prepared for it.
3. *Date of activation for use of DLC equipment* refers to the date that a DLC application referred to in paragraph 7.8.4.1(d) of this part was first activated for use.
   - DLC equipment as used in these provisions, refer to the physical unit(s) (e.g., box(es)) that was

approved to a minimum performance standard issued by a certification authority (e.g., TSO or ETSO).

- The activation of DLC functions refers to approved software activation of DLC functions or software updates.

4. *DLC recording required* refers to the requirement to record DLC messages in accordance with provisions of paragraphs 7.8.4.1(a), 7.8.4.1(b), and 7.8.4.1(d) of this part.

(d) GENERAL.

(1) It is the date on which the CVR capabilities of the aircraft were approved that determines the DLC recording requirement. The date in which the DLC equipment was approved to a minimum performance standard is not relevant for CVR recording requirement purposes.

(2) For the DLC equipment to be compliant with an airworthiness approval, it needs to be able to use, without modification, the installed aircraft components that are necessary to provide the DLC function such as the:

(i) Datalink router (e.g., hosted in the communications management unit), and

(ii) Radios (e.g., VHF, HF datalink, Satcom) and related antennas.

(3) Approved software updates to installed equipment or software activation of functions normally do not alter the DLC equipment compliance with the rest of the aircraft systems.

(e) EXAMPLES.

(1) For rows 1 and 2: The recording requirement is driven by paragraph 7.8.4.1(a) of this part, which is based on when the individual certificate of airworthiness was first issued. Any subsequent airworthiness modifications related to DLC capability do not exempt the aircraft from the requirement to record DLC messages.

(2) For rows 3 to 5 — General:

(i) The recording requirement is driven by paragraph 7.8.4.1(b) of this part and is based on whether or not the aircraft has an airworthiness approval for DLC capabilities and the date of its issue.

(ii) Since there was no requirement to record DLC messages prior to 01 January 2016, airworthiness approvals related to DLC capability issued before that date did not necessarily include this function.

(3) For row 3: The recording requirement applies regardless of when the certificate of airworthiness was issued, because an airworthiness approval related to DLC capability was issued on or after 01 January 2016. The date of installation of the equipment would typically be after the airworthiness approval.

(4) For row 4: The recording requirement does not apply because the aircraft's certificate of airworthiness and an airworthiness approval related to DLC capability was issued before 01 January 2016. The date of installation of DLC equipment is not a factor for DLC message recording requirements as long as the equipment is compliant with that airworthiness approval.

(5) For row 5:

(i) The recording requirement does not apply because the aircraft's certificate of airworthiness and an airworthiness approval related to DLC capability was issued before 01 January 2016. The date of installation of DLC equipment is not a factor for DLC message recording requirements as long as the equipment is compliant with that airworthiness approval.

(ii) Notwithstanding the above, if the activation for use of the DLC equipment is on or after 01 January 2016, DLC messages shall be recorded in accordance with paragraph 7.8.4.1(d) of this part.

IS 7.9.1.2 EMERGENCY EXIT EQUIPMENT – PASSENGERS

(a) The emergency exit equipment for aeroplanes in paragraph 7.9.1.2(a) of this part shall meet the following requirements.

(b) The assisting means for a floor-level emergency exit shall meet the requirements under which the aeroplane was type certified.

(c) The location of each passenger emergency exit shall be:

(1) Recognisable from a distance equal to the width of the cabin; and

(2) Indicated by a sign visible to occupants approaching along the main passenger aisle.

(d) There shall be an emergency exit locating sign:

(1) Above the aisle near each over-the-wing passenger emergency exit, or at another ceiling location if it is more practical because of low headroom;

(2) Next to each floor-level passenger emergency exit, except that one sign may serve two such exits if they both can be seen readily from that sign; and

(3) On each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible, the sign may be placed at another appropriate location.

(e) Each passenger emergency exit marking and each locating sign shall be manufactured to meet the interior emergency exit marking requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

Note: No sign may continue to be used if its luminescence (brightness) decreases to below 250 micro lamberts.

(f) Sources of general cabin illumination may be common to both the emergency and the main lighting systems if the power supply to the emergency light system is independent of the power supply to the main lighting system.

(1) The emergency lighting system shall provide enough general lighting in the passenger cabin so that the average illumination, when measured at 40-inch intervals at seat armrest height, on the centerline of the main passenger aisle, is at least 0.05 foot-candles.

(2) Each emergency light shall:

(i) Be operable manually both from the flight crew station and from a point in the passenger compartment that is readily accessible to a normal cabin crew member seat;

(ii) Have a means to prevent inadvertent operation of the manual controls;

(iii) When armed or turned on at either station, remain lighted or become lighted upon interruption of the aeroplane's normal electric power;

(iv) Provide the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing; and

(v) Have a flight deck control device that has “on,” “off,” and “armed” positions.

(3) The location of each passenger emergency exit operating handle and instructions for opening the exit shall be shown in accordance with the requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

(4) No operating handle or operating handle cover may continue to be used if its luminescence (brightness) decreases to below 100 micro lamberts.

(5) Access to emergency exits shall be provided as follows for each passenger-carrying aeroplane:

(i) Each passageway between individual passenger areas, or leading to a Type I or Type II emergency exit, shall be unobstructed and at least 20 inches wide;

(ii) There shall be enough space next to each Type I or Type II emergency exit to allow a crew member to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required in paragraph(a)(4)(i) of this IS; and

(iii) There shall be access from the main aisle to each Type III and Type IV exit. The access from the aisle to these exits shall not be obstructed by seats, berths, or other protrusions in a manner that would reduce the effectiveness of the exit. In addition, the access shall meet the emergency exit access requirements under which the aeroplane was type certificated, unless the Authority cites different requirements for compliance with this paragraph.

(6) If it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway shall not be obstructed. However, curtains may be used if they allow free entry through the passageway.

(7) No door may be installed in any partition between passenger compartments.

(8) If it is necessary to pass through a doorway separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door shall have a means to latch it in open position, and the door shall be latched open during each take-off and landing. The latching means shall be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, prescribed in the airworthiness standards for type certification in the transport category as cited by the Authority.

(9) Each passenger emergency exit and the means of opening that exit from the outside shall be marked on the outside of the aeroplane with a 5-cm (2-in) coloured band outlining the exit on the side of the fuselage.

(10) Each passenger emergency exit marking, including the band, shall be readily distinguishable from the surrounding fuselage area by contrast in colour and shall comply with the following:

(i) If the reflectance of the darker colour is 15 per cent or less, the reflectance of the lighter colour shall be at least 45 per cent; and

(ii) If the reflectance of the darker colour is greater than 15 per cent, at least a 30 per cent difference between its reflectance and the reflectance of the lighter colour shall be provided.

Note: "Reflectance" is the ratio of the luminous flux reflected by a body to the luminous flux it receives.

(11) Exits that are not in the side of the fuselage shall have external means of opening and applicable instructions marked conspicuously in red or, if red is inconspicuous against the background colour, in bright chrome yellow and, when the opening means for such an exit is located on only one side of the fuselage, a conspicuous marking to that effect shall be provided on the other side.

(12) Each passenger-carrying aeroplane shall be equipped with exterior lighting that meets the requirements under which that aeroplane was type certificated, unless the Authority cites different requirement for compliance with this paragraph.

(13) Each passenger-carrying aeroplane shall be equipped with a slip-resistant escape route that meets the requirements under which that aeroplane was type certificated, unless the Authority cites different requirements for compliance with this paragraph.

(14) Each floor-level door or exit in the side of the fuselage (other than those leading into a cargo or baggage compartment that is not accessible from the passenger cabin) that is 112 cm (44 in) or more high and 51 cm (20 in) or more wide, but not wider than 117 cm (46 in), each passenger ventral exit, and each tail cone exit shall meet the requirements of this section for floor-level emergency exits.

Note: The Authority may grant a deviation from this paragraph if it finds that circumstances make full compliance impractical and that an acceptable level of safety has been achieved.

(15) Approved emergency exits in the passenger compartments that are in excess of the minimum number of required emergency exits shall meet all the applicable provisions of this IS and shall be readily accessible.

(16) The ventral exit and tail cone exit on each passenger-carrying aeroplane with a certificated take-off mass of 5 700 kg (12 500 lbs) or more shall be:

(i) Designed and constructed so that it cannot be opened during flight; and

(ii) Marked with a placard readable from a distance of 76 cm (30 in) and installed at a conspicuous location near the means of opening the exit, stating that the exit has been designed and constructed so that it cannot be opened during flight.

(17) PORTABLE LIGHTS. No person may operate a passenger-carrying aeroplane unless the aeroplane is equipped with independent portable light stowage provisions accessible from each cabin crew member seat.

IS 7.9.1.11 FIRST AID KITS AND UNIVERSAL PRECAUTION KITS

(a) The required first aid kits shall include at least the following:

(1) List of contents

(2) Antiseptic swabs (10/pack)

(3) Bandage: adhesive strips

(4) Bandage: gauze 7.5 cm × 4.5 m

(5) Bandage: triangular; safety pins

(6) Dressing: burn 10 cm × 10 cm

(7) Dressing: compress, sterile 7.5 cm × 12 cm

(8) Dressing: gauze, sterile 10.4 cm × 10.4 cm

(9) Tape: adhesive 2.5 cm (roll)

(10) Steri-strips (or equivalent adhesive strip)

(11) Hand cleanser or cleansing towelettes

(12) Pad with shield, or tape, for eye

(13) Scissors: 10 cm [as allowed by national regulations]

(14) Tape: Adhesive, surgical 1.2 cm × 4.6 m

(15) Tweezers: splinter

(16) Disposable gloves (multiple pairs)

(17) Thermometers (non-mercury)

(18) Mouth-to-mouth resuscitation mask with one-way valve

(19) First aid manual, current edition

(20) Incident record form

(21) Mild to moderate analgesic [as allowed by national regulations]

(22) Antiemetic [as allowed by national regulations]

(23) Nasal decongestant [as allowed by national regulations]

(24) Antacid [as allowed by national regulations]

(25) Antihistamine [as allowed by national regulations]

(b) The required universal precaution kits shall include at least the following:

(1) Dry powder that can convert a small liquid spill into a sterile granulated gel

(2) Germicidal disinfectant for surface cleaning

(3) Skin wipes

(4) Face/eye mask (separate or combined)

(5) Gloves (disposable)

(6) Protective apron

(7) Large absorbent towel

(8) Pick-up scoop with scraper

(9) Bio-hazard disposal waste bag

(10) Instructions

Note: The carriage of AEDs will be determined by operators or the Authority on the basis of a risk assessment, taking into account the particular needs of the operation.

IS 7.9.1.12 EMERGENCY MEDICAL KIT – AEROPLANES

(a) [AOC] The required emergency medical kit shall include the following equipment:

(1) List of contents
(2) Stethoscope
(3) Sphygmomanometer (electronic preferred)
(4) Airways, oropharyngeal (three sizes)
(5) Syringes (appropriate range of sizes)
(6) Needles (appropriate range of sizes)
(7) Intravenous catheters (appropriate range of sizes)
(8) Antiseptic wipes
(9) Gloves (disposable)
(10) Needle disposal box
(11) Urinary catheter
(12) System for delivering intravenous fluids
(13) Venous tourniquet
(14) Sponge gauze
(15) Tape – adhesive
(16) Surgical mask
(17) Emergency tracheal catheter (or large gauge intravenous cannula)
(18) Umbilical cord clamp
(19) Thermometers (non-mercury)
(20) Basic life support cards
(21) Bag-valve mask
(22) Flashlight and batteries

Note: If a cardiac monitor is available (with or without an AED), add to the above list.

(b) [AOC] The required emergency medical kit shall include the following medication:

(1) Epinephrine 1:1 000
(2) Antihistamine – injectable
(3) Dextrose 50% (or equivalent) – injectable: 50 ml
(4) Nitroglycerin tablets, or spray
(5) Major analgesic
(6) Sedative anticonvulsant – injectable
(7) Antiemetic – injectable
(8) Bronchial dilator – inhaler
(9) Atropine – injectable
(10) Adrenocortical steroid – injectable

(11) Diuretic – injectable

(12) Medication for postpartum bleeding

(13) Sodium chloride 0.9% (minimum 250 ml)

(14) Acetyl salicylic acid (aspirin) for oral use

(15) Oral beta blocker

Note 1: Epinephrine 1:10 000 (can be a dilution of epinephrine 1:1 000).

Note 2: The United Nations Conference for the Adoption of a Single Convention on Narcotic Drugs in March 1961 adopted such a Convention, Article 32 of which contains special provisions concerning the carriage of drugs in medical kits of aircraft engaged in international flight.

IS 7.9.1.13 OXYGEN STORAGE AND DISPENSING APPARATUS

(a) The supplemental oxygen supply requirements for non-pressurised aeroplanes are as follows:

(1) An operator shall not operate a non-pressurised aeroplane at pressure altitudes above 3 000 m (10 000 ft) unless supplemental oxygen equipment, capable of storing and dispensing the oxygen supplies required, is provided.

(2) The amount of supplemental oxygen for sustenance required for a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures, established for each operation in the OM and with the routes to be flown, and with the emergency procedures specified in the OM.

(3) An aeroplane intended to be operated above 3 000 m (10 000 ft) pressure altitude shall be provided with equipment capable of storing and dispensing the oxygen supplies required.

(4) OXYGEN SUPPLY REQUIREMENTS.

(5) FLIGHT CREW MEMBERS. Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with table 5. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply, then they shall be considered as flight crew members on flight deck duty for the purpose of oxygen supply.

(6) CABIN CREW MEMBERS, ADDITIONAL CREW MEMBERS, AND PASSENGERS. Cabin crew members and passengers shall be supplied with oxygen in accordance with table 5. Cabin crew members carried in addition to the minimum number of cabin crew members required, and additional crew members, shall be considered as passengers for the purpose of oxygen supply.

Table 5. Supplemental Oxygen for Non-Pressurised Aeroplanes

(a)	(b)
Supply for:	**Duration and Pressure Altitude**
1. All occupants of flight deck seats on flight deck duty	Entire flight time at pressure altitudes above 3 000 m (10 000 ft)
2. All required cabin crew members	Entire flight time at pressure altitudes above 4 000 m (13 000 ft) and for any period exceeding 30 minutes at pressure altitudes above 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)
3. 100% of passengers (*see Note*)	Entire flight time at pressure altitudes above 4 000 m (13 000 ft)
4. 10% of passengers (*see Note*)	Entire flight time after 30 minutes at pressure altitudes greater than 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)

Note: For the purpose of this table, "passengers" means passengers actually carried and includes infants.

(b) The supplemental oxygen supply requirements for pressurised aeroplanes are as follows:

(1) An operator shall not operate a pressurised aeroplane at pressure altitudes above 3 000 m (10 000 ft) unless supplemental oxygen equipment, capable of storing and dispensing the oxygen supplies required by this paragraph, is provided.

(2) The amount of supplemental oxygen required shall be determined on the basis of cabin pressure altitude, flight duration, and the assumption that a cabin pressurisation failure will occur at the altitude or point of flight that is most critical from the standpoint of oxygen need, and that, after the failure, the aeroplane will descend in accordance with emergency procedures specified in the AFM to a safe altitude for the route to be flown that will allow continued safe flight and landing.

(3) Following a cabin pressurisation failure, the cabin pressure altitude shall be considered the same as the aeroplane pressure altitude, unless it is demonstrated to the Authority that no probable failure of the cabin or pressurisation system will result in a cabin pressure altitude equal to the aeroplane pressure altitude. Under these circumstances, the demonstrated maximum cabin pressure altitude may be used as a basis for determination of oxygen supply.

(4) OXYGEN EQUIPMENT AND SUPPLY REQUIREMENTS.

(5) FLIGHT CREW MEMBERS.

(i) Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with table 6. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply, then they shall be considered as flight crew members on flight deck duty for the purpose of oxygen supply.

(ii) Flight deck seat occupants not supplied by the flight crew source are to be considered as passengers for the purpose of oxygen supply.

(iii) Oxygen masks shall be located so as to be within the immediate reach of flight crew members whilst at their assigned duty station.

(iv) Oxygen masks for use by flight crew members in pressurised aeroplanes operating at pressure altitudes above 7 600 m (25 000 ft) shall be a quick-donning type of mask.

(6) CABIN CREW MEMBERS, ADDITIONAL CREW MEMBERS, AND PASSENGERS.

(i) Cabin crew members and passengers shall be supplied with supplemental oxygen in accordance with table 6. Cabin crew members carried in addition to the minimum number of cabin crew members required, and additional crew members, shall be considered as passengers for the purpose of oxygen supply.

(ii) Aeroplanes intended to be operated at pressure altitudes above 7 600 m (25 000 ft) shall be provided sufficient spare outlets and masks and/or sufficient portable oxygen units with masks for use by all required cabin crew members. The spare outlets and/or portable oxygen units are to be distributed evenly throughout the cabin to ensure immediate availability of oxygen to each required cabin crew member regardless of the crew member's location at the time of cabin pressurisation failure.

(iii) Aeroplanes intended to be operated at pressure altitudes above 7 600 m (25 000 ft) shall be provided an oxygen dispensing unit connected to oxygen supply terminals immediately available to each occupant, wherever seated. The total number of dispensing units and outlets shall exceed the number of seats by at least 10 per cent. The extra units shall be evenly distributed throughout the cabin.

(iv) Aeroplanes intended to be operated at pressure altitudes above 7 600 m (25 000 ft) or which, if operated at or below 7 600 m (25 000 ft), cannot descend safely within 4 minutes to 4 000 m (13 000 ft), and for which the individual certificate of airworthiness was first issued on or after 09 November 1998, shall be provided with automatically deployable oxygen equipment immediately available to each occupant, wherever seated. The total number of dispensing units and outlets shall exceed the number of seats by at least 10 per cent. The extra units shall be evenly distributed throughout the cabin.

(v) The oxygen supply requirements, as specified in table 6, for aeroplanes not certificated to fly at altitudes above 7 600 m (25 000 ft), may be reduced to the entire flight time between 3 000 m (10 000 ft) and 4 000 m (13 000 ft) cabin pressure altitudes for all required cabin crew members and for at least 10 per cent of the passengers if, at all points along the route to be flown, the aeroplane is able to descend safely within 4 minutes to a cabin pressure altitude of 4 000 m (13 000 ft).

Table 6. Requirements for Supplemental Oxygen for Pressurised Aeroplanes

Supply for:	Duration and Cabin Pressure Altitude
1. All occupants of flight deck seats on flight deck duty	Entire flight time when the cabin pressure altitude exceeds 13 000 ft and entire time when the cabin pressure altitude exceeds 10 000 ft but does not exceed 13 000 ft after the first 30 minutes at those altitudes, but in no case less than: (i) 30 minutes for aeroplanes certificated to fly at altitudes not exceeding 25 000 ft (*Note 2*) (ii) 2 hours for aeroplanes certificated to fly at altitudes more than 25 000 ft (*Note 3*)
2. All required cabin crew members	Entire flight time when cabin pressure altitude exceeds 13 000 ft but not less than 30 minutes (*Note 2*), and entire flight time when cabin pressure altitude is greater than 10 000 ft but does not exceed 13 000 ft after the first 30 minutes at these altitudes
3. 100% of passengers	10 minutes or the entire flight time when the cabin pressure altitude exceeds 13 000 ft, whichever is greater (*Note 4*)
4. 10% of passengers	Entire flight time when the cabin pressure altitude exceeds 10 000 ft but does not exceed 13 000 ft after the first 30 minutes at these altitudes

Note 1: The supply provided shall take account of the cabin pressure altitude and descent profile for the routes concerned.

Note 2: The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certificated operating altitude to 3 000 m (10 000 ft) in 10 minutes and followed by 20 minutes at 3 000 m (10 000 ft).

Note 3: The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certificated operating altitude to 3 000 m (10 000 ft) in 10 minutes and followed by 110 minutes at 3 000 m (10 000 ft). The oxygen required to meet the crew protective breathing equipment provisions of this part may be included in determining the supply required.

Note 4: The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certificated operating altitude to 15 000 ft.

Note 5: For the purpose of this table, "passengers" means passengers actually carried and includes infants.

(c) The supplemental oxygen supply requirements for non-pressurised helicopters are as follows:

(1) An operator shall not operate a non-pressurised helicopter at pressure altitudes above 3 000 m (10 000 ft) unless supplemental oxygen equipment, capable of storing and dispensing the oxygen supplies required, is provided.

(2) The amount of supplemental oxygen for sustenance required for a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures, established for each operation in the OM and with the routes to be flown, and with the emergency procedures specified in the OM.

(3) A helicopter intended to be operated above 3 000 m (10 000 ft) pressure altitude shall be provided with equipment capable of storing and dispensing the oxygen supplies required.

(d) OXYGEN SUPPLY REQUIREMENTS.

(e) FLIGHT CREW MEMBERS. Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with table 7. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply, then they shall be considered as flight crew members on flight deck duty for the purpose of oxygen supply.

(f) CABIN CREW MEMBERS, ADDITIONAL CREW MEMBERS, AND PASSENGERS. Cabin crew members and passengers shall be supplied with oxygen in accordance with table 7. Cabin crew members carried in addition to the minimum number of cabin crew members required, and additional crew members, shall be considered as passengers for the purpose of oxygen supply.

Table 7. Supplemental Oxygen for Non-Pressurised Helicopters

(a)	(b)
Supply for:	**Duration and Pressure Altitude**
1. All occupants of flight deck seats on flight deck duty	Entire flight time at pressure altitudes above 3 000 m (10 000 ft)
2. All required cabin crew members	Entire flight time at pressure altitudes above 4 000 m (13 000 ft) and for any period exceeding 30 minutes at pressure altitudes above 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)
3. 100% of passengers (*see Note*)	Entire flight time at pressure altitudes above 4 000 m (13 000 ft)
4. 10% of passengers (*see Note*)	Entire flight time after 30 minutes at pressure altitudes greater than 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)

Note: For the purpose of this table, "passengers" means passengers actually carried and includes infants.

IS 7.10.1.13 COSMIC RADIATION DETECTION EQUIPMENT

(a) Compliance with the sampling requirements in 7.10.1.13(a)(2) of this part shall be accomplished as follows:

(1) The sampling shall be carried out in conjunction with a radiological agency or similar organisation acceptable to the Authority.

(2) Sixteen route sectors that include flight above 15 000 m (49 000 ft) shall be sampled every quarter (3 months). Where less than 16 route sectors that include flight above 15 000 m (49 000 ft) are achieved each quarter, then all sectors above 15 000 m (49 000 ft) shall be sampled.

(3) The cosmic radiation recorded shall include both the neutron and non-neutron components of the radiation field.

(4) The results of the sampling, including a cumulative summary quarter on quarter, shall be reported to the Authority under arrangements acceptable to the Authority.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 8—OPERATIONS

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CCAR PART 8—OPERATIONS

8.1 GENERAL

8.1.1.1 APPLICABILITY

(a) Part 8 prescribes the requirements for:

(1) Operations conducted by a flight crew member certificated in Curaçao while operating aircraft registered in Curaçao;

(2) Operation of foreign aircraft registered in another State by Curaçao AOC holders; and

(3) Operation of aircraft within Curaçao by flight crew or AOC holders of another State.

(b) For operations outside of Curaçao, all pilots and operators certificated in Curaçao shall comply with these requirements unless compliance would result in a violation of the laws of the State in which the operation is conducted.

Note 1: Where a particular requirement is applicable only to a particular segment of aviation operations, it will be identified by a reference to those particular operations, such as “commercial air transport” or “small non-turbojet or turbofan aeroplanes.”

(1) Note 2: Those specific subsections not applicable to operators of other States will include the phrase “This requirement is not applicable to operators of other States.”

8.1.1.2 DEFINITIONS

(a) Definitions concerning the Subparts other than 8.12 are contained in Part 1.

(c) For the purposes of Subpart 8.12, the following definitions shall apply:

(1) **Augmented flight crew.** A flight crew which comprises more than the minimum number required for the operation of the aeroplane and in which each flight crew member can leave his/her post for the purpose of in-flight rest, and be replaced by another appropriately qualified flight crew member.

(2) **Block time.** The time between an aeroplane first moving from its parking place for the purpose of taking off until it comes to rest on the designated parking position and all engines or propellers are stopped.

(3) **Break.** means a period of time within a flight duty period, shorter than a rest period, counting as duty and during which a crew member is free of all tasks.

(4) **Duty.** Any task that a crew member is required to carry out associated with the business of an AOC holder.

(5) **Duty period.** A period which starts when a crew member is required by the operator to report for a duty and ends when the crew member is free from all duties, including post-flight duty.

(6) **Flight duty period.** A flight duty period (FDP) is any time during which a person operates in an aircraft as a member of its crew. The FDP starts when the crew member is required by

the operator to report for a flight or a series of flights; it finishes at the end of the last flight on which he/she is an operating crew member.

(7) **Home base.** The location nominated by the operator to the crew member from where the crew member normally starts and ends a duty period or a series of duty periods and where, under normal conditions, the operator is not responsible for the accommodation of the crew member concerned.

(8) **Local day.** A 24 hour period commencing at 00.00 local time.

(9) **Local night.** A period of eight hours falling between 22.00 and 08.00 local time.

(10) **A single day free of duty.** A single day free of duty shall include two local nights. A rest period may be included as part of the day off.

(11) **Operating crew member.** A crew member who carries out his/her duties in an aircraft during a flight or during any part of a flight.

(1) **Positioning.** The transferring of a non-operating crew member from place to place, at the behest of the operator, excluding travelling time. Travelling time is defined as: time from home to a designated reporting place and vice versa;

(12) time for local transfer from a place of rest to the commencement of duty and vice versa.

(13) **Reporting Time.** The time at which a crew member is required by the operator to report for any duty.

(14) **Rostered/Planned Duty.** A duty period, or series of duty periods, with stipulated start and finish times, notified by the company to crew in advance.

(15) **Rest period.** An uninterrupted and defined period of time during which a crew member is free from all duties and airport standby. A crew member shall not be disturbed during the minimum rest period required before reporting for a flight duty period.

(16) **Standby.** A defined period of time during which a crew member is required by the operator to be available to receive an assignment for a flight, positioning or other duty without an intervening rest period.

(17) **Suitable Accommodation.** For the purpose of standby, split duty, and rest, A well-furnished separate bedroom for each crew member which is subject to minimum noise, is well ventilated, and has the facility to control the levels of light intensity and temperature and access to food and drink.

(18) **Travelling.** Time spent by a crew member transferring between his/her place of rest and the place of reporting.

(19) **Window of Circadian Low (WOCL).** The Window of Circadian Low (WOCL) is the period between 02.00 and 05.59. Within a band of three time zones the WOCL refers to home base time. Beyond these three time zones the WOCL refers to home base time for the first 48 hours after departure from home base time zone, and to local time thereafter.

8.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in Part 8:

(1) **AAC** – all aircraft

(2) **ACAS** – airborne collision avoidance system

(3) **AD** – Airworthiness Directive

(4) **ADS** – automatic dependent surveillance

(5) **ADS-B** – automatic dependent surveillance – broadcast

(6) **ADS-C** – automatic dependent surveillance – contract

(7) **AGL** – above ground level

(8) **AIP** – Aeronautical Information Publication

(9) **AMO** – approved maintenance organisation

(10) **AMSL** – above mean sea level

(11) **AMT** – aviation maintenance technician

(12) **AOC** – air operator certificate

(13) **APU** – auxiliary power unit

(14) **ATC** – air traffic control

(15) **ATPL** – airline transport pilot licence

(16) **ATS** – air traffic service

(17) **ATZ** – Aerodrome Traffic Zone

(18) **CAT** – Category

(19) **CDL** – configuration deviation list

(20) **CG** – centre of gravity

(21) **CP** – co-pilot

(22) **CPL** – commercial pilot licence

(23) **CRM** – crew resource management

(24) **CRT** – cathode ray tube

(25) **CVR** – cockpit voice recorder

(26) **CVS** – combined vision system

(27) **DH** – decision height

(28) **EDTO** – extended diversion time operation

(29) **ETA** – estimated time of arrival

(30) **EVS** – enhanced vision system

(31) **FAS** – final approach segment

(32) **FDP** – Flight Duty Period

(33) **FDR** – flight data recorder

(34) **FE** – flight engineer

(35) **FL** – flight level

(36) **FN** – flight navigator

(37) **FOO** – flight operations officer

(38) **FRMS** – fatigue risk management system

(39) **FSTD** – flight simulation training device

(40) **GPS** – global positioning system

(41) **HUD** – head-up display

(42) **IAP** – instrument approach procedure

(43) **ICAO** – International Civil Aviation Organization

(44) **IFR** – instrument flight rules

(45) **ILS** – instrument landing system

(46) **IMC** – instrument meteorological conditions

(47) **INS** – inertial navigation system

(48) **IS** – Implementing Standards

(49) **LDA** – localiser-type directional aid

(50) **LOC** – localiser

(51) **LORAN** – long-range navigation

(52) **LVO** – low-visibility operations

(53) **LVTO** – low visibility take-off

(54) **MDA** – minimum descent altitude

(55) **MDH** – minimum descent height

(56) **MEA** – minimum en-route altitude

(57) **MEL** – minimum equipment list

(58) **MMEL** – master minimum equipment list

(59) **MNPS** – minimum navigation performance specifications

(60) **MOCA** – minimum obstruction clearance altitude

(61) **MSL** – mean sea level

(62) **NAT HLA** – North Atlantic high level airspace

(63) **NM** – nautical miles

(64) **NOTAM** – Notice to Airmen

(65) **NPA** – non-precision approach

(66) **OCA** – obstacle clearance altitude

(67) **OCA/H** – obstacle clearance altitude/height

(68) **OCH** – obstacle clearance height

(69) **OM** – Operations Manual

(70) **PA** – precision approach

(71) **PBN** – performance-based navigation

(72) **PIC** – pilot-in-command

(73) **PBE** – protective breathing equipment

(74) **RFFS** – rescue and fire fighting service

(75) **RNAV** – area navigation

(76) **RP** – remote pilot

(77) **RPA** – remotely piloted aircraft

(78) **RPAS** – remotely piloted aircraft system

(79) **RPS** – remote pilot station

(80) **RVR** – runway visual range

(81) **RVSM** – reduced vertical separation minimum

(82) **SCCM** – senior cabin crew member

(83) **SDF** – simplified directional facility

(84) **SM** – statute miles

(85) **SSR** – secondary surveillance radar

(86) **SVS** – synthetic vision system

(87) **TACAN** – tactical air navigation system

(88) **UTC** – coordinated universal time

(89) **VFR** – visual flight rules

(90) **VMC** – visual meteorological conditions

(91) **VSM** – vertical separation minimum

(92) $\mathbf{V_1}$ – take-off decision speed

(93) $\mathbf{V_{mo}}$ – maximum operating speed

(94) **VOR** – VHF omnidirectional radio range

(95) $\mathbf{V_{so}}$ – stalling speed or the minimum steady flight speed in the landing configuration

(96) **WOCL** - Window of Circidian Low

8.2 GENERAL OPERATIONS REQUIREMENTS

8.2.1 AIRCRAFT REQUIREMENTS

8.2.1.1 REGISTRATION MARKINGS

(a) No person may operate a Curaçao-registered aircraft unless the aircraft displays the proper markings as prescribed in Part 4 of these regulations.

8.2.1.2 CIVIL AIRCRAFT AIRWORTHINESS

(b) No person may operate a civil aircraft unless it is in an airworthy condition.

(c) Each PIC of a civil aircraft shall determine whether that aircraft is in a condition for safe flight.

(d) Each PIC of a civil aircraft shall discontinue a flight as soon as practicable when an unairworthy mechanical, electrical, or structural condition occurs.

8.2.1.3 SPECIAL CERTIFICATE OF AIRWORTHINESS OPERATIONAL RESTRICTIONS

(a) No person may operate an aircraft with a special certificate of airworthiness except as provided in the limitations issued with that certificate.

8.2.1.4 AIRCRAFT INSTRUMENTS AND EQUIPMENT

(a) No person may operate an aircraft unless the aircraft is equipped with the required instruments and navigation equipment appropriate to the type of operation conducted and the route being flown.

Note: The instruments and equipment required for specific operations are listed in Part 7 of these regulations.

8.2.1.5 INOPERATIVE INSTRUMENTS AND EQUIPMENT

(a) No person may take off an aircraft with inoperative instruments or equipment installed, except as authorised by the Authority.

(b) An AOC holder shall not operate a multi-engine aircraft with inoperative instruments and equipment installed unless the following conditions are met:

(1) An approved MEL exists for that aircraft.

(2) The Authority has issued the AOC holder operations specifications authorising operations in accordance with an approved MEL. The flight crew shall have direct access at all times before flight to all the information contained in the approved MEL through printed or other means approved by the Authority in the AOC holder's operations specifications. An approved MEL, as authorised by the operations specifications, constitutes an approved change to the type design without requiring recertification.

(3) The approved MEL shall:

(i) Be prepared in accordance with the limitations specified in paragraph 8.2.1.5(c) of this subsection; and

(ii) Provide for the operation of the aircraft with certain instruments and equipment in an inoperative condition.

(4) Records identifying the inoperative instruments and equipment and the information required by paragraph 8.2.1.5(b)(3)(ii) of this subsection shall be available to the pilot.

(5) The aircraft is operated under all applicable conditions and limitations contained in the MEL and the operations specifications authorising the use of the MEL.

(c) The following instruments and equipment shall not be included in the MEL:

(1) Instruments and equipment that are either specifically or otherwise required by the airworthiness requirements under which the aircraft is type certificated and that are essential for safe operations under all operating conditions;

(2) Instruments and equipment required by an AD to be in operable condition unless the AD provides otherwise; and

(3) Instruments and equipment required for specific operations under Parts 7, 8, and/or 9 of these regulations.

(d) Notwithstanding paragraphs 8.2.1.5(c)(1) and (3) of this subsection, an aircraft with inoperative instruments or equipment may be operated under a special flight permit under 5.3.1.7 of these regulations.

(e) In situations where no MMEL is available and no MEL is required for the specific aircraft operation under these regulations, operations in an aircraft with inoperative instruments and equipment installed may commence provided the following conditions are met:

(1) The inoperative instruments and equipment shall not be:

(i) Part of the day VFR instruments and equipment prescribed in Part 7 of these regulations;

(ii) Required on the aircraft's equipment list or the operations equipment list for the type of flight operation being conducted;

(iii) Required by Part 7 for the specific type of flight operation being conducted; or

(iv) Required to be operational by an AD.

(v) The inoperative instruments and equipment shall be:

(vi) Determined by the PIC not to be a hazard to safe operation;

(vii) Deactivated and placarded "Inoperative"; and

(viii) Removed from the aircraft, the flight deck control placarded, and the maintenance recorded in accordance with Part 5 of these regulations.

(f) If deactivation of the inoperative instrument or equipment involves maintenance, it shall be accomplished and recorded in accordance with Part 5 of these regulations.

Note: The instruments and equipment required for specific operations are listed in Part 7 of these regulations.

8.2.1.6 CIVIL AIRCRAFT FLIGHT MANUAL, MARKING, AND PLACARD REQUIREMENTS

(a) No person may operate a Curacao registered civil aircraft unless there is available in the aircraft:

(1) A current, approved Aircraft Flight Manual or Rotorcraft Flight Manual; or

(2) An Aircraft Operating Manual approved by the Authority for the AOC holder; and

(3) If no Aircraft Flight Manual or Rotorcraft Flight Manual exists, approved manual material, markings, and placards, or any combination thereof, that provide the PIC with the necessary limitations for safe operation.

(b) No person may operate a civil aircraft within or over Curacao without complying with the operating limitations specified in the approved Aircraft Flight Manual or Rotorcraft Flight Manual, markings, and placards, or as otherwise prescribed by the Authority of the aircraft's State of Registry.

(c) Each Aircraft Flight Manual or Rotorcraft Flight Manual shall be updated by implementing changes made mandatory by the State of Registry.

(d) Each operator shall display in the aircraft all placards, listings, and instrument markings, or combinations thereof, containing those operating limitations prescribed for visual presentation by the certificating Authority for the aircraft's State of Registry.

8.2.1.7 REQUIRED AIRCRAFT AND EQUIPMENT INSPECTIONS

(a) Unless otherwise authorised by the Authority, no person may operate a Curacao -registered civil aircraft unless it has had the appropriate inspections required by 8.3 of this part.

8.2.1.8 DOCUMENTS TO BE CARRIED ON BOARD AIRCRAFT – ALL OPERATIONS

(a) Except as provided in 8.2.1.6 of this part, no person may operate a civil aircraft in commercial air transport operations unless the following current and approved documents are carried on board the aircraft:

(1) Certificate of aircraft registration issued to the owner;

(2) Certificate of airworthiness;

(3) Aircraft journey log;

(4) Insurance certificate

(5) Aircraft radio licence;

(6) List of passenger names and points of embarkation and destination, if applicable;

(7) Cargo manifest, including special loads information;

(8) Aircraft technical log;

(9) AOC, if required;

(10) Noise certificate, if required;

(11) Aircraft Flight Manual or Rotorcraft Flight Manual, as applicable;

(12) Part(s) of the OM relevant to operation(s) conducted;

(13) MEL;

(14) CAT II or CAT III manual, as applicable;

(15) Operational flight plan, for all international flights;

(16) Filed ATC flight plan;

(17) NOTAMs briefing documentation;

(18) Meteorological information;

(19) Mass and balance documentation;

(20) Roster of special situation passengers;

Note: "Special situation passengers" include armed security personnel, deportees, persons in custody, and persons with special medical needs.

(21) Maps and charts for routes of proposed flight or possibly diverted flights;

(22) Forms for complying with the reporting requirements of the Authority and the AOC holder;

(23) For international flights, a general declaration for customs;

(24) Appropriate licences for each member of the flight crew;

(25) Copy of the release to service, if any, in force with respect to the aircraft;

(26) Search and rescue information, for international flights;

(27) A certified true copy of the agreement summary of the Article 83 bis agreement entered into between the State of Registry and the State of the Operator, in either an electronic or hard copy format. When the summary is issued in a language other than English, an English translation shall be included; and

(28) Any documentation that may be required by the Authority or States concerned with a proposed flight.

(b) Except as provided in 8.2.1.6 of this part, no person may operate a civil aircraft in general aviation operations or aerial work operations unless the following current and approved documents are carried on board the aircraft:

(1) Certificate of aircraft registration issued to the owner;

(2) Certificate of airworthiness;

(3) Insurance certificate

(4) Aircraft journey log;

(5) Aircraft radio licence, for international flights;

(6) List of passenger names and points of embarkation and destination, if applicable;

(7) Cargo manifest, including special loads information;

(8) Appropriate licences for each member of the flight crew;

(9) Copy of the release to service, if any, in force with respect to the aircraft, or technical log, as applicable;

(10) Noise certificate, if required;

(11) Aircraft Flight Manual or Rotorcraft Flight Manual, as applicable;

(12) CAT II or CAT III manual, as applicable;

(13) Operational flight plan, for all international flights;

(14) NOTAMs briefing documentation;

(15) Maps and charts for routes of proposed flight or possibly diverted flights;

(16) Forms for complying with the reporting requirements of the Authority;

(17) For international flights, a general declaration for customs;

(18) Aerial work certificate for aerial work operators;

(19) Search and rescue information, for international flights; and

(20) Any documentation that may be required by the Authority or States concerned with a proposed flight.

Note 1: Guidance concerning the transfer of responsibilities by the State of Registry to the State of the Operator in accordance with Article 83 bis is contained in ICAO Doc 10059, Manual on the Implementation of Article 83 bis of the Convention on International Civil Aviation.

Note 2: The document attesting noise certification shall state the Standards in ICAO Annex 16, Volume I. The document may be contained in any document, carried on board, approved by the State of Registry.

8.3 AIRCRAFT CONTINUING AIRWORTHINESS AND INSPECTION REQUIREMENTS

8.3.1.1 APPLICABILITY

(a) This Subpart prescribes the rules governing the continuing airworthiness and inspection of Curaçao registered civil aircraft operating within or outside Curaçao.

(b) Where any aircraft, not registered in Curaçao and operating under an inspection programme approved or accepted by the State of Registry, does not have the equipment required by Curaçao, for operations within Curaçao, the owner or operator shall ensure that such equipment is installed and inspected in accordance with the requirements of the State of Registry, acceptable to the Authority before operation of that aircraft in Curaçao.

(c) Annual inspections and annual inspections plus 100-hour inspections in 8.3.1.4 of this part do not apply to:

(1) An aircraft that carries a special flight permit, a current experimental certificate, or a provisional certificate of airworthiness;

(2) An aircraft subject to the requirements of progressive inspections in 8.3.1.5 of this part;

(3) An aircraft subject to the requirements of continuing airworthiness inspections in 8.3.1.6 of this part; and

(4) A large aeroplane, a turbine-powered multi-engine aeroplane, or a turbine-powered rotorcraft when the operator elects to inspect that rotorcraft in accordance with the requirements of continuing airworthiness inspections in 8.3.1.6 of this part.

8.3.1.2 GENERAL

(a) The registered owner or operator of an aircraft shall maintain that aircraft in an airworthy condition, including compliance with all ADs.

(b) No person may perform maintenance, overhaul, modifications, repairs, or inspections on an aircraft except as prescribed in this subpart and other applicable regulations, including Part 5 of these regulations.

(c) No person may operate an aircraft for which a manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness have been issued that contain an airworthiness limitations section unless the mandatory replacement times, inspection intervals, and related procedures set forth in operations specifications approved by the Authority under Part 9 of these regulations for AOC holders, or in accordance with an inspection programme approved under this subsection, are complied with.

(d) The owner or operator shall use one of the following inspection programmes, as appropriate for the aircraft and the type of operation:

(1) Annual;

(2) Annual/100-hour;

(3) Progressive; or

(4) Continuing airworthiness maintenance programme.

(e) No aircraft shall be approved for return to service after inspection unless the replacement times for life-limited parts specified in the aircraft specification type certificate data sheets are complied with

and the aircraft, including aeronautical products and survival and emergency equipment, is inspected in accordance with the selected inspection programme.

(f) Each person wishing to establish or change an approved inspection programme shall submit the programme for approval by the Authority and shall include in writing:

(1) Instructions and procedures for the conduct of inspection for the particular make and model of aircraft, including necessary tests and checks. The instructions shall set forth in detail the parts and areas of the aeronautical products, including survival and emergency equipment required to be inspected; and

(2) A schedule for the inspections that shall be performed expressed in terms of time in service, calendar time, number of system operations, or any combination of these.

(g) When an owner or operator changes from one inspection programme to another, the owner or operator shall, in determining when the inspection is due under the new programme, apply the time in service, calendar times, or cycles of operation accumulated under the previous programme.

(h) The design and application of the operator's maintenance programme shall observe Human Factors principles.

8.3.1.3 ANNUAL INSPECTIONS

(a) An annual inspection programme may be used for non-complex aircraft with a maximum certificated take-off mass of less than 5,700 kg (12,566 lb) or less that are not used for compensation or hire.

(b) An annual inspection subsection may be performed by an AMO.

(c) No person may operate an aircraft unless, within the preceding 12 calendar months, the aircraft has had:

(1) An annual inspection in accordance with Part 5 of these regulations and has been approved for return to service by an AMO certificated in accordance with Part 6 of these regulations; or,

(2) An inspection for the issuance of a certificate of airworthiness completed by the Authority in accordance with Part 5 of these regulations.

8.3.1.4 ANNUAL/100 HOUR INSPECTIONS

(a) No person may operate a non-complex aircraft with a maximum certificated take-off mass of 5,700 kg (12,566 lb) or less carrying any person (other than a crew member) for compensation or hire, and no person may give flight instruction for compensation or hire in an aircraft provided by that person, unless:

(1) Within the preceding 100 hours of time in service, the aircraft has received an annual or a 100-hour inspection, and

(2) The aircraft has been approved for return to service in accordance with Part 5 of these regulations.

(b) The 100-hour limitation may be exceeded by not more than 10 hours while en-route to reach a place where the inspection can be performed. The excess time used to reach a place where the inspection can be performed shall be included in computing the next 100 hours of time in service.

(c) An annual inspection under this subsection may be performed and the aircraft may be returned to service by an AMO certificated in accordance with Part 6 of these regulations.

(d) A 100-hour inspection under this subsection may be performed and the aircraft may be returned to service by an AMO certificated in accordance with Part 6 of these regulations.

8.3.1.5 PROGRESSIVE INSPECTIONS

(a) A progressive inspection programme may be used for aircraft with a maximum certificated take-off mass of 5,700 kg (12,566 lb) or less.

(b) Aircraft inspected under a progressive inspection programme may be used for compensation or hire.

(c) Each registered owner or operator of an aircraft desiring to use a progressive inspection programme shall submit a written request to the Authority, and shall provide:

(1) An AMO appropriately rated in accordance with Part 6 of these regulations, or the manufacturer of the aircraft to supervise or conduct the progressive inspection;

(2) A current inspection procedures manual that is available and readily understandable to pilot and maintenance personnel and contains, in detail:

(i) An explanation of the progressive inspection, including the continuity of inspection responsibility, the making of reports, and the keeping of records and technical reference material;

(ii) An inspection schedule, specifying the intervals in hours or days when routine and detailed inspections will be performed and including instructions for exceeding an inspection interval by not more than 10 hours while en-route and for changing an inspection interval because of service experience;

(iii) Sample routine and detailed inspection forms and instructions for their use; and

(iv) Sample reports and records and instructions for their use;

(3) Enough housing and equipment for necessary disassembly and proper inspection of the aircraft; and

(4) Appropriate current technical information for the aircraft.

(d) The frequency and detail of the progressive inspection shall provide for the complete inspection of the aircraft within each 12 calendar-months and shall be consistent with the current manufacturer's recommendations, field service experience, and the type of operation in which the aircraft is engaged.

(e) The progressive inspection schedule shall ensure that the aircraft, at all times, is airworthy and will conforms to all applicable aircraft specifications, type certificate data sheets, ADs, and other approved data acceptable to the Authority.

(f) Each owner or operator shall include in the progressive inspection programme the name and address of the person responsible for the scheduling of the inspections required by the programme and shall provide a copy of the programme to the person performing inspection on the aircraft.

(g) If the progressive inspection programme is discontinued, the owner or operator shall immediately notify the Authority, in writing, of the discontinuance.

(1) After the discontinuance, the first annual inspection under Part 8 is due within 12 calendar months after the last complete inspection of the aircraft under the progressive inspection programme.

(2) The 100-hour inspection is due within 100 hours after the last complete inspection under the progressive inspection programme.

(3) A complete inspection of the aircraft, for the purpose of determining when the annual and 100 hour inspections are due, requires a detailed inspection of the aircraft and all its components in accordance with the progressive inspection programme.

(4) A routine inspection of the aircraft and a detailed inspection of several components are not considered to be a complete inspection.

8.3.1.6 CONTINUING AIRWORTHINESS INSPECTIONS

(a) The registered owner or operator of each large aeroplane with a maximum certificated take-off mass of over 5,700 kg (12,566 lb), turbine-powered multi-engine aeroplane, or turbine-powered rotorcraft shall select, identify in the aircraft continuing airworthiness records, and use one of the following continuing airworthiness inspection programmes for the inspection of the aircraft:

(1) A current inspection programme recommended by the manufacturer;

(2) A continuing airworthiness maintenance programme for that make and model of aircraft currently approved by the Authority for use by an AOC holder; or

(3) Any other inspection programme established by the registered owner or operator of that aircraft and approved by the Authority.

(b) Each owner or operator shall include in the selected inspection programme the name and address of the person responsible for the scheduling of the inspections required by the programme and shall provide a copy of the programme to the person performing inspection on the aircraft.

Note: The aircraft manufacturer's inspection programme and any other inspection programme approved by the Authority, will specify who can perform aircraft maintenance and inspections and approve the aircraft for return to service.

8.3.1.7 CHANGES TO AIRCRAFT MAINTENANCE INSPECTION PROGRAMMES

(a) Whenever the Authority finds that revisions to an approved inspection programme are necessary for the continued adequacy of the programme, the owner or operator shall, after notification by the Authority, make any changes in the programme found to be necessary.

(b) Within 30 days after receiving the notice from the Authority, the owner or operator may petition the Authority to reconsider the notice.

(c) Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Authority.

8.3.1.8 REQUIRED MAINTENANCE

(a) Each owner or operator of an aircraft shall:

(1) Have that aircraft inspected as prescribed in 8.3 of this part and shall have discrepancies repaired as prescribed in the performance rules of Part 5 of these regulations;

(2) Repair, replace, remove, or inspect any inoperative instruments or items of equipment at the next required inspection, except when permitted to be deferred under the provisions of an MEL;

(3) Ensure that a placard has been installed on the aircraft when listed discrepancies include inoperative instruments or equipment; and

(4) Ensure that maintenance personnel make appropriate entries in the aircraft continuing airworthiness records indicating the aircraft has been approved for return to service.

8.3.1.9 CONTINUING AIRWORTHINESS RECORDS RETENTION

(a) Except for records maintained by an AOC holder, each registered owner or operator shall retain the following continuing airworthiness records until the work is repeated or superseded by other work of equivalent scope and detail:

(1) Records of the maintenance, overhaul, modifications, repairs, and inspections and records of the 100-hour, annual, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft to include:

(i) A description (or reference to data acceptable to the Authority) of the work performed,

(ii) The date of completion of the work performed; and

(iii) The signature and certificate number of the person approving the aircraft for return to service; and

(2) Records containing the following information:

(i) The total time-in-service of the airframe, each engine, each propeller, and each rotor

(ii) The current status of all life-limited aeronautical products;

(iii) The time since the last overhaul of all items installed on the aircraft that are required to be overhauled on a specified time basis;

(iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection programme under which the aircraft aeronautical products are maintained

(v) The current status of applicable ADs, including, for each, the method of compliance, the AD number, and the revision date. If the AD involves a recurring action, include the time and date when the next action is required; and

(vi) Copies of the forms prescribed by this part for each major modification to the airframe and currently installed engines, rotors, propellers, and appliances.

(b) The records specified in paragraph 8.3.1.9(a) of this subsection shall be retained and transferred with the aircraft at the time the aircraft is sold or leased.

(c) A list of defects shall be retained until the defects are repaired and the aircraft is approved for return to service.

(d) The owner or operator shall make all continuing airworthiness records required by this subsection available for inspection by the Authority.

Note 1: Guidance regarding electronic aircraft continuing airworthiness records is included in ICAO Doc 9760, Airworthiness Manual.

Note 2: Continuing airworthiness record requirements for AOC holders are prescribed in Part 9 of these regulations.

8.3.1.10 LEASE OR SALE OF AIRCRAFT—TRANSFER OF CONTINUING AIRWORTHINESS RECORDS

(a) Any owner or operator who sells or leases a Curaçao-registered aircraft shall transfer to the purchaser or lessor, at the time of sale or lease, the records for that aircraft as identified in § 8.3.1.9, which shall be maintained in a form and format that ensures readability, security, and integrity of the records at all times in plain language form or in coded form at the election of the purchaser or lessor if the coded form provides for the preservation and retrieval of information in a manner acceptable to the Authority.

8.4 FLIGHT CREW REQUIREMENTS

8.4.1.1 COMPOSITION OF THE FLIGHT CREW

(a) The number and composition of the flight crew may not be less than that specified in the flight manual or other documents associated with the certificate of airworthiness.

(b) Where radio equipment is installed in the aircraft, the flight crew shall include at least one member who holds a valid radio licence authorising operation of the type of radio transmitting equipment to be used.

(c) When navigation necessary for the safe operation of the aeroplane cannot be accomplished from the pilot's station the flight crew shall include a member who holds a flight navigator licence.

(d) A CP is required for IFR commercial air transport operations, unless the Authority has issued an exemption in accordance with the exemption process in Part 1 of these regulations, for the use of an autopilot in lieu of a CP. If such operations are to be conducted outside Curaçao, the Authority shall have an arrangement with the States where operations are conducted. This exemption is applicable for aeroplanes with a maximum certificated take-off mass of 5,700 kg (12,566 lb) or less or helicopters with a maximum certificated take-off mass of 3 175 kg (7000 lb) or less.

(e) When a separate FE's station is incorporated in the design of an aeroplane and the FE function cannot be accomplished from the pilot's station by a pilot who holds a FE licence without interference with regular duties, the flight crew shall include at least one crew member who holds an FE licence engineer licence especially assigned to that station.

8.4.1.2 FLIGHT CREW QUALIFICATIONS

(a) The PIC shall ensure that the licences of each flight crew member have been issued or rendered valid by the State of Registry and contain the proper ratings, and that all the flight crew members have maintained recency of experience.

(b) No person may operate a civil aircraft in commercial air transport or aerial work unless that person is qualified for the specific operation and in the specific type of aircraft used.

(c) The owner or operator of an aircraft shall ensure that the flight crew members demonstrate the ability to speak and understand the language used for radiotelephony communications and for international operations.

8.4.1.3 AUTHORISATION IN LIEU OF A TYPE RATING

(a) The Authority may authorise a pilot to operate an aircraft requiring a type rating without a type rating for up to 60 days, provided:

(1) The Authority has determined that an equivalent level of safety can be achieved through the operating limitations on the authorisation;

(2) The applicant shows that compliance with this subsection is impracticable for the flight or series of flights;

(3) The operations:

(i) Involve only a ferry flight, training flight, test flight, or skill test for a pilot licence or rating;

(ii) Are conducted within the Curaçao FIR, unless, by previous agreement with the Authority of the other State, the aircraft is flown to an adjacent contracting State for maintenance;

(iii) Are not for compensation or hire unless the compensation or hire involves payment for the use of the aircraft for training or taking a skill test; and

(iv) Involve only the carriage of crew members considered essential for the flight.

(4) If the purpose of the authorisation provided by paragraph 8.4.1.3(a) of this subsection cannot be accomplished within the time limit of the authorisation, the Authority may authorise an additional period of up to 60 days.

8.4.1.4 LICENCES REQUIRED

(a) Except as provided for in Subsection 8.4.1.3 of this part, no person may act as PIC or in any other capacity as a required flight crew member of a civil aircraft of:

(1) Curaçao registry, unless he or she carries in his or her personal possession the appropriate and current Curacao licence or validation for that flight crew position for that type of aircraft and a valid medical certificate;

(2) foreign registry unless he or she carries in his or her personal possession a valid and current licence for that type of aircraft, issued or validated by the State in which the aircraft is registered.

8.4.1.5 RATING REQUIRED FOR INSTRUMENT FLIGHT RULES OPERATIONS

(a) No person may act as pilot of a civil aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless:

(1) The pilot holds an instrument rating or an ATPL licence with an appropriate aircraft category, class, and type (if required) rating for the aircraft being flown;

(2) For a helicopter, the pilot holds a helicopter instrument rating

8.4.1.6 SPECIAL AUTHORISATION REQUIRED FOR CATEGORY II/III OPERATIONS

(a) Except as shown in paragraph 8.4.1.6(b) of this subsection), no person may act as pilot of a civil aircraft in a Category II/III operation unless:

(1) In the case of a PIC, he or she holds a current CAT II or III pilot authorization issued by the State of Registry for that aircraft type; or

(2) In the case of a CP, he or she is authorized by the State of Registry to act as CP in that aircraft type in CAT II/III operations.

(b) An authorisation is not required for individual pilots of an AOC holder that has operations specifications approving CAT II or III operations.

8.4.1.7 PILOT LOGBOOKS

(a) Each pilot shall show the aeronautical training and experience used to meet the requirements for a licence or rating, or for recency of experience, by a reliable record.

(b) Each PIC shall carry his or her logbook on all general aviation international flights.

(c) A student pilot shall carry his or her logbook, including the proper flight instructor endorsements, on all solo cross-country flights.

Note: The acceptable methods of logging experience are outlined in Part 2 of these regulations.

8.4.1.8 PILOT RECENCY AND PROFICIENCY – GENERAL AVIATION OPERATIONS

(a) The recency and proficiency requirements for general aviation operations are listed in Part 2: 2.3.1.6 of these regulations.

8.4.1.9 FLIGHT CREW—LIMITATIONS ON USE OF SERVICES FOR COMMERCIAL AIR TRANSPORT

(a) No person may serve as a flight crew member in commercial air transport, nor may any AOC holder use a flight crew member in commercial air transport unless that person is otherwise qualified for the operations for which he or she is to be used.

(b) The qualifications, training and proficiency checking for flight crew members engaged in commercial air transport operations are provided in 8.10 of this part.

(c) The recency and proficiency requirements for flight crew members engaged in commercial air transport operations are prescribed in 8.4.1.10 through 8.4.1.14 of this part.

8.4.1.10 PILOT RECENCY—TAKE-OFF AND LANDINGS, COMMERCIAL AIR TRANSPORT OPERATIONS

(a) No person may act as PIC or CP of an aircraft carrying passengers unless, within the preceding 90 days, that person has:

(1) Made three take-offs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type or in an FSTD approved for the purpose.

(2) For a tailwheel aeroplane, made the three take-offs and landings required by paragraph 8.4.1.10(a)(1) of this subsection in a tailwheel aeroplane with each take-off and landing to a full stop.

(3) For night operations, made the three take-offs and landings required by paragraph 8.4.1.10(a)(1) of this subsection at night with each take-off and landing to a full stop.

(b) A pilot who has not met the recency of experience for take-offs and landings shall satisfactorily complete a requalification curriculum acceptable to the Authority.

(c) The requirements of paragraphs 8.4.1.10(a) and (b) of this subsection may be satisfied in an FSTD approved by the Authority.

8.4.1.11 PILOT RECENCY- INSTRUMENT FLIGHT RULES OPERATIONS

(a) No person may act as a pilot under IFR, or in IMC, unless that person has, within the preceding 6 calendar months:

(1) Logged at least 6 hours of instrument flight time including at least 3 hours in flight in the category of aircraft; and

(2) Completed at least six instrument approaches.

(b) A pilot who has completed an instrument proficiency check with an authorised representative of the Authority retains currency for IFR operations for 6 calendar-months following that check.

(c) Requirements of paragraphs (a) and (b) may be satisfied in a flight simulator approved by the Authority.

8.4.1.12 PILOT RECENCY – CRUISE RELIEF PILOT, COMMERCIAL AIR TRANSPORT OPERATIONS

(a) No person may act as a cruise relief pilot in commercial air transport unless within the preceding 90 days, that person has either:

(1) Operated as PIC, CP, or cruise relief pilot on the same type of aircraft; or

(2) Carried out flying skill refresher training including normal, abnormal and emergency procedures specific to cruise flight on the same type of aircraft or in an FSTD approved for the purpose, and has practiced approach and landing procedures, where the approach and landing procedure practice may be performed as the pilot who is not flying the aircraft.

(b) When a cruise relief pilot is flying several variants of the same type of aircraft or different types of aircraft with similar characteristics in terms of operating procedures, systems, and handling, the recency or refresher training may be combined, if approved by the Authority.

8.4.1.13 PILOT RECENCY – NIGHT VISION GOGGLES

(a) No person may act as PIC in a night vision goggle operation unless that person has completed the required training prescribed in Part 2: 2.3.2.9 of these regulations and has performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle

operation, within the preceding 60 days to act as PIC with passengers on board, or within the preceding 120 days to act as PIC without passengers on board:

(1) 3 take-offs and landings, with each take-off and landing including a climbout, cruise, descent, and approach phase of flight, if the pilot intends to use night visions goggles during the take-off and landing phase of flight;

(2) 3 hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;

(3) 3 area departure and area arrival tasks;

(4) 3 tasks of transitioning from aided night flight to unaided night flight and back to aided night flight; or

(5) 3 night vision goggle operations, or when operating helicopters or powered-lifts, 6 night vision goggle operations.

(b) No person may act as PIC in a night vision goggle operation unless that person has successfully completed the night vision goggles proficiency check required in Part 2: 2.3.2.9, with the Authority or an authorised representative of the Authority.

8.4.1.14 PILOT PROFICIENCY - COMMERCIAL AIR TRANSPORT OPERATIONS

(a) The qualification, training and proficiency checking requirements for flight crew members engaged in commercial air transport are prescribed in 8.10 of this part. Additionally, the requirements in paragraphs 8.4.1.14(b) and (c) of this subsection shall be met, as applicable.

(b) ALL PILOTS. No person shall act as a pilot of an aircraft unless that person has, within the preceding 12 months, successfully passed two proficiency checks conducted by an authorised representative of the Authority. The proficiency check requirement:

(1) Shall ensure that piloting technique and the ability to execute emergency procedures is checked in such a way as to demonstrate the pilot's competence on each type or variant of a type of aircraft, including where the operations may be conducted under IFR;

(2) Shall not be satisfied by the conduct of two checks that are similar and that occur within a period of 4 consecutive months; and

(3) May be combined for several variants of the same type of aircraft or different types of aircraft with similar characteristics in terms of operating procedures, systems and handling, if approved by the Authority.

(c) SINGLE-PILOT OPERATIONS. No person shall act as PIC of an aircraft unless that person has completed the following proficiency requirements in the class of aeroplane in an environment representative of the operation:

(1) For operations under the IFR or at night, the person shall have accumulated at least 50 hours flight time on the class of aeroplane, of which at least 10 hours shall be as PIC;

(2) For operations under the IFR, the person shall have accumulated at least 25 hours flight time under the IFR on the class of aeroplane, which may form part of the 50 flight time in paragraph 8.4.1.14(c)(1) of this subsection;

(3) For operations at night, the person shall have accumulated at least 15 hours flight time at night, which may form part of the 50 hours flight time in paragraph 8.4.1.14(c)(1) of this subsection; and

(4) The person shall have successfully completed training programmes that include, in addition to the operator's training programme, passenger briefing with respect to emergency evacuation, autopilot management, and the use of simplified in-flight documentation.

(d) The aircraft pilot proficiency check and the instrument proficiency check shall be accomplished by the Authority or an authorised representative of the Authority in the category, class and type of aircraft to be operated, or in an FSTD approved for the purpose, to the requirements prescribed in 8.10.1.20 of this part, in IS 8.10.1.20, and in the applicable skill test in Part 2 of these regulations.

(e) NIGHT VISION GOGGLES OPERATION. No person may act as PIC in a night vision goggle operation unless, the pilot has completed the required training prescribed in Part 2: 2.3.2.9 of these regulations and either:

(1) Meets the currency requirements in paragraph 8.4.1.13(a) of this part; or

(2) Passes the night vision goggles proficiency check required by paragraph 8.4.1.13(b) of this part with Authority or an authorised representative of the Authority.

8.4.1.15 PILOT PRIVILEGES AND LIMITATIONS

(a) A pilot may conduct operations only within the general privileges and limitations of each licence, rating or authorisation as specified in Part 2 of these regulations.

8.4.1.16 DECOMPRESSION SICKNESS AFTER SCUBA DIVING.

(a) A pilot who intends to fly after scuba diving shall allow the body sufficient time to rid itself of excess nitrogen absorbed during diving. If not, decompression sickness due to evolved gas can occur during exposure to low altitude and create a serious in-flight emergency.

(b) The waiting time before going to flight altitudes of up to 8,000 feet shall be at least:

(1) 12 hours after diving which has not required controlled ascent (non-decompression stop diving); and

(2) At least 24 hours after diving which has required controlled ascent (decompression stop diving).

(d) The waiting time before going to flight altitudes above 8,000 feet shall be at least 24 hours after any SCUBA dive.

(c) These above-mentioned altitudes are actual flight altitudes above mean sea level (AMSL) and not pressurized cabin altitudes.

8.5 CREW MEMBER DUTIES AND RESPONSIBILITIES

8.5.1.1 AUTHORITY AND RESPONSIBILITY OF THE PILOT-IN-COMMAND

(a) The PIC shall be responsible for the operations and safety of the aircraft and for the safety of all persons on board, during flight.

(b) The PIC of an aircraft shall have final authority as to the operation of the aircraft while he or she is in command.

(c) The PIC of an aircraft shall, whether manipulating the controls or not, be responsible for the operation of the aircraft in accordance with the rules of the air, except that the PIC may depart from these rules in emergency circumstances that render such departure absolutely necessary in the interests of safety.

(d) The PIC shall not conduct general aviation operations for which a specific approval is required unless such approval has been issued by the State of Registry. Specific approvals shall follow the layout and contain at least the information prescribed in IS 8.5.1.1.

8.5.1.2 COMPLIANCE WITH LOCAL REGULATIONS

(a) The PIC shall comply with the relevant laws, regulations and procedures of the States in which the aircraft is operated.

(b) If an emergency situation that endangers the safety of the aircraft or persons necessitates the taking of action that involves a violation of local regulations or procedures, the PIC shall:

(1) Notify the appropriate local Authority without delay;

(2) Submit a report of the circumstances, if required by the State in which the incident occurs; and

(3) Submit a copy of this report to the State of the Operator of the AOC or to the State of Registry, in general aviation.

(c) Each PIC shall submit to the Authority within 10 days, on a form and in a manner prescribed by the Authority, the report specified in paragraph 8.5.1.2(b) of this subsection.

8.5.1.3 NEGLIGENT OR RECKLESS OPERATIONS OF THE AIRCRAFT

(a) No person may operate an aircraft in a negligent or reckless manner so as to endanger life or property of others.

8.5.1.4 FITNESS OF FLIGHT CREW MEMBERS

(a) No person may act as PIC or in any other capacity as a required flight crew member when he or she is aware of any decrease in his or her medical fitness that might render the crew member unable to safely exercise the privileges of his or her licence.

(b) The PIC shall be responsible for ensuring that a flight is not:

(1) Commenced if any flight crew member is incapacitated from performing duties by any cause such as injury, sickness, fatigue, the effects of alcohol or drugs; or

(2) Continued beyond the nearest suitable aerodrome if a flight crew member's capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness or lack of oxygen.

8.5.1.5 PROHIBITION ON USE OF PSYCHOACTIVE SUBSTANCES, INCLUDING NARCOTICS, DRUGS OR ALCOHOL

(a) No person may act or attempt to act as a crew member of a civil aircraft:

(1) Within 10 hours after the consumption of any alcoholic beverage;

(2) While under the influence of alcohol; or

(3) While using any psychoactive substance that affects the person's faculties in any way contrary to safety

(b) A crew member shall, up to 10 hours before or immediately after acting or attempting to act as a crew member, on the request of a law enforcement officer or the Authority, submit to a test to indicate the presence of alcohol or other psychoactive substances in the blood.

(c) Whenever there is a reasonable basis to believe that a person may not be in compliance with this subsection and upon the request of the Authority, that person shall furnish the Authority or shall authorise any clinic, doctor, or other person to release to the Authority, the results of each blood test taken for the presence of alcohol or narcotic substances up to 10 hours before or immediately after acting or attempting to act as a crew member.

(d) Any test information provided to the Authority under the provisions of this section may be used as evidence in any legal proceeding.

8.5.1.6 FLIGHT CREW MEMBER USE OF SEAT BELTS AND SHOULDER HARNESSES

(a) Each flight crew member shall have his or her seat belts fastened during take-off and landing and at all other times when seated at his or her station.

(b) Each flight crew member occupying a station equipped with a shoulder harness shall fasten that harness during take-off and landing, except that the shoulder harness may be unfastened if the crew member cannot perform the required duties with the shoulder harness fastened.

(c) Each flight crew member occupying a seat equipped with a combined safety belt and shoulder harness shall have the combined safety belt and shoulder harness properly secured about that crew member during take-off and landing, except that the combined safety belt and shoulder harness may be unfastened if the crew member cannot perform the required duties with the combined safety belt and shoulder harness fastened.

(d) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crew members in the performance of their duties or with the rapid egress of occupants in an emergency.

8.5.1.7 FLIGHT CREW MEMBERS AT DUTY STATIONS

(a) Each required flight crew member shall remain at the assigned duty station during take-off and landing and during critical phases of flight.

(b) Each flight crew member shall remain at his or her station during all phases of flight unless:

(1) Absence is necessary for the performance of his or her duties in connection with the operation;

(2) Absence is necessary for physiological needs, provided one qualified pilot remains at the controls at all times; or

(3) The crew member is taking a rest period and a qualified relief crew member replaces him or her at the duty station.

(i) For the assigned PIC during the en-route cruise portion of the flight by a pilot who holds an ATPL and an appropriate type rating, and who is currently qualified as PIC or CP, and is qualified as PIC of that aircraft during the en-route cruise portion of the flight; and

(ii) In the case of the assigned CP, by a pilot qualified to act as PIC or CP of that aircraft during en-route operations

8.5.1.8 REQUIRED CREW MEMBER EQUIPMENT

(a) Each crew member involved in night operations shall have an independent portable light at his or her station.

(b) Each crew member shall have at his or her station an aircraft checklist containing the normal, abnormal, and emergency procedures relating to the operation of that type of aircraft.

(c) Each crew member shall have at his or her station current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

(d) Each flight crew member assessed as fit to exercise the privileges of a licence subject to the use of suitable correcting lenses, shall have a spare set of the correcting lenses readily available when performing as a required crew member in commercial air transport.

8.5.1.9 COMPLIANCE WITH CHECKLISTS

(a) The PIC shall ensure that the flight crew follows the approved checklist procedures when operating the aircraft.

8.5.1.10 SEARCH AND RESCUE INFORMATION

(a) For all international flights, the PIC shall have on board the aircraft essential information concerning the search and rescue services in the areas over which he or she intends to operate the aircraft.

8.5.1.11 PRODUCTION OF AIRCRAFT AND FLIGHT DOCUMENTATION

(a) The PIC shall, within a reasonable time of being requested to do so by a person authorised by the Authority, produce to that person the documentation required to be carried on the aircraft.

8.5.1.12 LOCKING OF FLIGHT DECK COMPARTMENT DOOR: COMMERCIAL AIR TRANSPORT

(a) The PIC shall ensure that the flight deck compartment door (if installed) is closed and locked at all times during passenger-carrying commercial air transport operations, except as necessary to accomplish approved operations or to provide for emergency evacuation, and as listed below:

(1) From the time all external doors are closed following embarkation, until

(2) Any such door is opened for disembarkation, except

(3) When necessary to permit access and egress by authorised persons.

(b) No person may operate a passenger-carrying aeroplane unless it is equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons; this door shall be capable of being locked and unlocked from either pilot's station, for aeroplanes with a maximum certificated take-off mass in excess of:

(1) 54 500 kg;

(2) 45 000 kg and with a passenger seating capacity greater than 19; or

(3) With a passenger seating capacity greater than 60.

8.5.1.13 ADMISSION TO THE FLIGHT DECK—COMMERCIAL AIR TRANSPORT

(a) No person may admit any person to the flight deck of an aircraft engaged in commercial air transport operations unless the person being admitted is:

(1) A crew member;

(2) A representative of the Authority responsible for certification, licensing or inspection, if this is required for the performance of his or her official duties; or

(3) Permitted by and carried out in accordance with instructions contained in the OM.

(b) The PIC shall ensure that:

(1) In the interest of safety, admission to the flight deck does not cause distraction and/or interference with the flight's operations; and

(2) All persons carried on the flight deck are made familiar with the relevant safety procedures.

8.5.1.14 ADMISSION OF INSPECTOR TO THE FLIGHT DECK – COMMERCIAL AIR TRANSPORT

(a) Whenever, in performing the duties of conducting an inspection, an inspector from the Authority presents inspector's credentials to the PIC of an aircraft engaged in commercial air transport operations, the PIC shall give the inspector free and uninterrupted access to the flight deck of the aircraft.

8.5.1.15 DUTIES DURING CRITICAL PHASES OF FLIGHT: COMMERCIAL AIR TRANSPORT

(a) No flight crew member may perform any duties during a critical phase of flight except those required for the safe operation of the aircraft.

(b) No PIC may permit a flight crew member to engage in any activity during a critical phase of flight that could distract or interfere with the performance of his or her assigned duties.

8.5.1.16 MANIPULATION OF THE CONTROLS—COMMERCIAL AIR TRANSPORT

(a) No PIC may allow an unqualified person to manipulate the controls of an aircraft during commercial air transport operations.

(b) No person may manipulate the controls of an aircraft during commercial air transport operations unless he or she is qualified to perform the applicable crew member functions and is authorised by the AOC holder.

8.5.1.17 SIMULATED ABNORMAL SITUATIONS IN FLIGHT: COMMERCIAL AIR TRANSPORT

(a) No person may cause or engage in simulated abnormal or emergency situations or the simulation of IMC by artificial means during commercial air transport operations.

8.5.1.18 COMPLETION OF THE AIRCRAFT TECHNICAL LOG—COMMERCIAL AIR TRANSPORT AND AERIAL WORK

(a) The PIC shall ensure that all portions of the aircraft technical log are completed at the appropriate points before, during and after flight operations, including:

(1) The journey logbook; and

(2) The aircraft maintenance records section.

Note: Requirements for the journey logbook and maintenance records section of the aircraft technical log are prescribed in 9.4.1.5 and 9.5.1.9 of these regulations.

8.5.1.19 REPORTING MECHANICAL IRREGULARITIES

(a) Each PIC shall be responsible for reporting to the operator, at the termination of the flight, all known or suspected defects in the aeroplane.

(b) Each PIC shall be responsible for reporting to the operator, at the termination of the flight, all known or suspected defects in the helicopter.

8.5.1.20 REPORTING OF FACILITY AND NAVIGATION AID INADEQUACIES

(a) Each crew member shall report, without delay, any inadequacy or irregularity of a facility or navigational aid observed in the course of operations to the person responsible for that facility or navigational aid.

8.5.1.21 REPORTING OF HAZARDOUS CONDITIONS

(a) The PIC shall report to the appropriate ATC facility, without delay and with enough detail to be pertinent to the safety of other aircraft, any hazardous flight conditions encountered en-route, including those associated with meteorological conditions.

(b) The PIC shall report the runway braking action special air-report when the runway braking action encountered is not as good as reported.

Note: The procedures for making special air-reports regarding runway braking action are contained in ICAO Doc 4444, Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM), Chapter 4 and Appendix 1.

8.5.1.22 REPORTING OF INCIDENTS

(a) AIR TRAFFIC INCIDENT REPORT. The PIC shall submit, without delay, an air traffic incident report whenever an aircraft in flight has been endangered by:

(1) A near collision with another aircraft or object;

(2) Faulty air traffic procedures or a lack of compliance with applicable procedures by ATC or the flight crew; or

(3) A failure of ATC facilities.

(b) BIRDS. In the event a bird constitutes an in-flight hazard or an actual bird strike occurs, the PIC shall, without delay:

(1) Inform the appropriate ground station whenever a potential bird hazard is observed; and

(2) Submit a written bird strike report after landing.

(c) DANGEROUS GOODS. The PIC shall inform the appropriate ATC facility, if the situation permits, when an in-flight emergency occurs involving dangerous goods on board.

(d) UNLAWFUL INTERFERENCE. The PIC shall submit a report to the local authorities and to the Authority, without delay, following an act of unlawful interference with the crew members on board an aircraft.

8.5.1.23 ACCIDENT NOTIFICATION

(a) The PIC shall notify the nearest appropriate Authority, by the quickest available means, of any accident involving his or her aircraft that results in serious injury or death of any person, or substantial damage to the aircraft or property.

(b) The PIC shall submit a report to the Authority of any accident that occurred while he or she was responsible for the flight.

8.5.1.24 OPERATION OF COCKPIT VOICE AND FLIGHT DATA RECORDERS

(a) The PIC shall ensure that whenever an aircraft has flight recorders installed, those recorders are operationally checked and operated continuously from the instant:

(1) For an FDR, from the instant the aircraft begins its take-off roll until it has completed the landing roll; and

(2) For a CVR, from the initiation of the pre-start checklist until the end of the securing aircraft checklist.

(b) The PIC may not permit an FDR or a CVR to be disabled, switched off or erased during flight, unless necessary to preserve the data for an accident or incident investigation.

(c) In the event of an accident or incident, the PIC shall act to preserve the recorded data for subsequent investigation upon completion of flight.

Note: The ICAO Annex Standard is that a PIC shall not turn off the CVR/FDR in-flight. However, paragraph 8.5.1.24(b) of this subsection is in the regulations of many Contracting States to enable the PIC to stop the recording in order to prevent recording over an accident or incident that would otherwise be lost.

8.5.1.25 CREW MEMBER OXYGEN—MINIMUM SUPPLY AND USE

(a) The PIC shall ensure that breathing oxygen and masks are available to crew members in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of the faculties of crew members.

(b) In no case shall the minimum supply of oxygen on board the aircraft be less than that prescribed by the Authority in Part 7.

Note: The requirements for oxygen supply and use are prescribed in 7.9.1.13 of these regulations.

(c) The PIC shall ensure that all flight crew members, when engaged in performing duties essential to the safe operation of an aircraft in flight, use breathing oxygen continuously at cabin altitudes exceeding 3,000 m (10000 ft) for a period in excess of 30 minutes and whenever the cabin altitude exceeds 4,000 m (13000 ft).

(d) One pilot at the controls of a pressurised aircraft in flight shall wear and use an oxygen mask:

(1) For general aviation operations, at FLs above 350, if there is no other pilot at a pilot duty station; and

(2) For commercial air transport operations, at FLs above 250, if there is no other pilot at a pilot duty station, unless equipped with the crew oxygen masks that are of the quick-donning, inflatable harness type and are stowed in a container.

8.5.1.26 PORTABLE ELECTRONIC DEVICES

(a) No PIC or SCCM may permit any person to use, nor may any person use, on board an aircraft, a portable electronic device that may adversely affect the performance of aircraft systems and equipment unless:

(1) For IFR operations other than commercial air transport, the PIC allows such a device before its use; or

(2) For commercial air transport operations, the AOC holder makes a determination of acceptable devices and publishes that information in the OM for the crew members' use; and

(3) The PIC informs passengers of the permitted use.

8.5.1.27 CARRIAGE OF DANGEROUS GOODS

(a) No person shall carry dangerous goods in an aircraft registered in Curaçao or operated in Curaçao except:

(1) With the written permission of the Authority and subject to any condition the Authority may impose in granting such permission; and

(2) In accordance with ICAO Doc 9284, Technical Instructions for the Safe Transport of Dangerous Goods by Air, and any variations to those instructions that the Authority may from time to time mandate and provide notification of to ICAO.

8.5.1.28 MICROPHONES

(a) For AOC holders operating aircraft, a required flight crew member shall use a boom or throat microphone to communicate with another flight crew member and ATS below FL 100/10000 ft or the transition level/altitude, whichever is higher.

(b) For general aviation operations in an aeroplane, helicopter, or powered-lift aircraft, a required flight crew member shall use a boom or throat microphone to communicate with another flight crew member and ATS below FL 100/10000 ft or the transition level/altitude, whichever is higher.

(c) For aerial work operations, a required flight crew member shall use a boom or throat microphone to communicate with another flight crew member and ATS below FL 100/10000 ft or the transition level/altitude, whichever is higher, as applicable to the mission.

8.6 FLIGHT PLANNING AND SUPERVISION

8.6.1 GENERAL

8.6.1.1 SUBMISSION OF A FLIGHT PLAN

(a) Before operating one of the following, a pilot shall file a VFR or IFR flight plan, as applicable, for:

(1) Any flight (or portion thereof) to be provided with ATC service;

(2) Any IFR flight within advisory airspace;

(3) Any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate the provision of flight information, alerting and search and rescue services;

(4) Any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate co-ordination with appropriate military units or with ATC facilities in adjacent states in order to avoid the possible need for interception for the purpose of identification; and

(5) Any flight across international borders

(b) The PIC shall submit a flight plan to the appropriate ATC facility before departure or during flight, unless arrangements have been made for submission of repetitive flight plans

(c) Unless otherwise prescribed by the appropriate ATC Authority a pilot should submit a flight plan to the appropriate ATC facility:

(1) At least 60 minutes before departure; or

(2) If submitted during flight, at a time that will ensure its receipt by the appropriate ATC facility at least ten minutes before the aircraft is estimated to reach:

(i) The intended point of entry into a control area or advisory area; or

(ii) The point of crossing an airway or advisory route

8.6.1.2 AIR TRAFFIC CONTROL FLIGHT PLAN—COMMERCIAL AIR TRANSPORT

(a) No person may take-off an aircraft in commercial air transport if an ATC flight plan has not been filed, except as authorised by the Authority.

8.6.1.3 CONTENTS OF A FLIGHT PLAN

(a) Each person filing an IFR or VFR flight plan shall include in the flight plan the following information:

(1) Aircraft identification;

(2) Flight rules and type of flight;

(3) Number and type(s) of aircraft and wake turbulence category;

(4) Equipment;

(5) Departure aerodrome and alternate (if required);

(6) Estimated off-block time;

(7) Cruising speed(s);

(8) Cruising level(s);

(9) Route to be followed;

(10) En-route alternate aerodrome (if required);;

(11) Destination aerodrome and alternate(s) (if required);

(12) Fuel endurance;

(13) Total number of persons on board;

(14) Emergency and survival equipment; and

(15) Other information.

8.6.1.4 PLANNED RECLEARANCE

(a) If during flight planning a person determines that there is a possibility depending on fuel endurance that a flight may be able to change destinations and still comply with minimum fuel supply planning requirements, that person shall notify the appropriate ATC facility of this possibility when the flight plan is submitted.

Note: The intent of this provision is to facilitate a new clearance to a revised destination, normally beyond the filed destination aerodrome.

8.6.1.5 CHANGES TO A FLIGHT PLAN

(a) When a change occurs to a flight plan submitted for an IFR flight or a VFR flight operated as a controlled flight, the pilot shall report that change as soon as practicable to the appropriate ATC facility.

(b) For VFR flights other than those operated as a controlled flight, the PIC shall report significant changes to a flight plan as soon as practicable to the appropriate ATC facility.

Note: Information submitted before departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change and shall be reported.

8.6.1.6 CLOSING A FLIGHT PLAN

(a) The PIC shall make a report of arrival either in person or by radio to the appropriate ATC facility at the earliest possible moment after landing at the destination aerodrome, unless ATC automatically closes a flight plan.

(b) When a flight plan has been submitted for a portion of a flight, but not the arrival at destination, the pilot shall close that flight plan en-route with the appropriate ATC facility.

(c) When no ATC facility exists at the arrival aerodrome, the pilot shall contact the nearest ATC facility to close the flight plan as soon as practicable after landing and by the quickest means available.

(d) Pilots shall include the following elements of information in their arrival reports:

(1) Aircraft identification;

(2) Departure aerodrome;

(3) Destination aerodrome (only in the case of a diversionary landing);

(4) Arrival aerodrome; and

(5) Time of arrival.

8.6.2 FLIGHT PLANNING AND PREPARATION

8.6.2.1 AIRCRAFT AIRWORTHINESS AND SAFETY PRECAUTIONS

(a) The PIC may not operate a civil aircraft in flight until satisfied that:

(1) The aircraft is airworthy and duly registered and that appropriate certificates are aboard the aircraft;

(2) The instruments and equipment as prescribed in Part 7, are installed in the aircraft and are appropriate, taking into account the expected flight conditions; and

(3) Any necessary maintenance has been performed and an approval for return to service, if applicable, has been issued with respect to the aircraft.

(b) For commercial air transport operations, the PIC shall certify by signing the aircraft technical log that he or she is satisfied that the requirements of paragraph 8.6.2.1(a) of this subsection have been met for a particular flight.

8.6.2.2 ADEQUACY OF OPERATING FACILITIES

(a) No person may commence a flight unless it has been determined by every reasonable means available that the ground and/or water areas and facilities available and directly required for such flight and for the safe operation of the aircraft, are adequate, including communication facilities and navigation aids.

(b) An operator shall ensure that a flight will not commence or continue as planned unless it has been ascertained by every reasonable means available that the airspace containing the intended route from aerodrome of departure to aerodrome of arrival, including the intended take-off, destination, and en-route alternate aerodromes, can be safely used for the planned operation. When intending to operate over or near conflict zones, a risk assessment shall be conducted and appropriate risk mitigation measures taken to ensure a safe flight

(c) An operator shall ensure that any inadequacy of facilities observed in the course of operations is reported to the Authority responsible for those facilities, without undue delay.

(d) Subject to their published conditions of use, aerodromes and their facilities shall be kept continuously available for flight operations during their published hours of operations, irrespective of meteorological conditions.

(e) An operator shall, as part of its safety management system, assess the level of RFFS protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aeroplane intended to be used.

(f) Information related to the level of RFFS protection that is deemed acceptable by the operator shall be contained in the OM.

Note 1: "Reasonable means" denotes the use, at the point of departure or while the aircraft is in flight, of information available to the operator either through official information published by the Aeronautical Information Services or readily obtainable from other sources.

Note 2: ICAO Doc 10084, Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones, contains further guidance on risk assessment for air operators when flying over or near conflict zones.

Note 3: ICAO Annex 6, Part I, Attachment I, contains guidance on assessing an acceptable level of RFFS protection at aerodromes.

Note 4: It is not intended that this guidance limit or regulate the operation of an aerodrome. The assessment performed by the operator does not in any way affect the RFFS requirements of ICAO Annex 14, Volume I, for aerodromes.

Note 5: ICAO Annex 19 includes safety management provisions for air operators. Further guidance is contained in ICAO Doc 9859, Safety Management Manual (SMM).

8.6.2.3 METEOROLOGICAL REPORTS AND FORECASTS

(a) Before commencing a flight, the PIC shall be familiar with all available meteorological information appropriate to the intended flight.

(b) The PIC shall include, during preparation for a flight away from the vicinity of the place of departure, and for every flight under IFR:

(1) A study of available current meteorological reports and forecasts; and

(2) The planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned, because of meteorological conditions.

8.6.2.4 METEOROLOGICAL LIMITATIONS FOR VISUAL FLIGHT RULES FLIGHTS

(a) No person will commence a flight to be conducted in accordance with VFR unless available current meteorological reports, or a combination of current reports and forecasts, indicate that the meteorological conditions along the route, or that part of the route to be flown under VFR, will, at the appropriate time, allow VFR operations.

8.6.2.5 INSTRUMENT FLIGHT RULES DESTINATION AERODROMES

(a) No person may conduct an IFR flight unless:

(1) At the time of take-off, the meteorological conditions at the departure aerodrome are at or above the operator's established aerodrome operating minima for that operation; and

(2) At the time of take-off or point of in-flight re-planning, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions at the aerodrome of intended landing or at each alternate aerodrome will be, at the estimated time of use, at or above the operator's established aerodrome operating minima for that operation.

(3) The operator has been approved to specify appropriate incremental values for height of cloud base and visibility to be added to the operator's established heliport or landing location operating minima.

Note 1: A partial exception is granted for commercial air transport IFR flight planning, to the effect that the meteorological conditions at the destination do not have to be at or above the approach minima to release and commence a flight, as long as the designated alternate aerodrome meets the IFR meteorological selection criteria.

Note 2: A widely accepted time margin for "estimated time of use" is 1 hour before and after the earliest and latest time of arrival. Additional considerations can be found in ICAO Doc 9976, Flight Planning and Fuel Management Manual.

8.6.2.6 INSTRUMENT FLIGHT RULES DESTINATION ALTERNATE REQUIREMENT

(a) [AAC] No person may commence an IFR flight in an aeroplane without at least one destination alternate aerodrome listed in the flight plan unless:

(1) The duration of the flight from the departure aerodrome, or from the point of in-flight re-planning, to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use, a reasonable certainty exists:

(i) That, at the ETA at the aerodrome of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under VMC; and

(ii) Separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational IAP; or

(2) The aerodrome of intended landing is isolated and there is no suitable destination alternate aerodrome, and:

(i) There is a standard IAP prescribed for the aerodrome of intended landing by the jurisdictional authorities; and

(ii) A point of no return has been determined; and

(iii) A flight shall not be continued past the point of no return unless available current meteorological information indicates that the following meteorological conditions will exist at the estimated time of use:

(A) A cloud base of at least 600 m (2 000 ft) above the aerodrome elevation; and

(B) Visibility of at least 5.5 km (3 NM) or of 4 km (2 NM) more than the minimum associated with the IAP.

(b) [AOC] No person may commence an IFR flight in an aeroplane:

(1) without at least one destination alternate aerodrome listed in the flight plan unless:

(i) the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use there is a reasonable certainty that

(A) the approach and landing may be made under VMC and

(B) separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational IAP, or

(ii) The aerodrome of intended landing is isolated, and

(A) for each flight into an isolated aerodrome a point of no return shall be determined; and

(B) a flight to be conducted to an isolated aerodrome shall not be continued past the point of no return unless a current assessment of meteorological conditions, traffic, and other operational conditions indicate that a safe landing can be made at the estimated time of use; and

(C) The fuel requirements of paragraph 8.6.2.15(b)(4)(iv) of this part are met.

(2) without at least two destination alternate aerodromes listed in the operational and ATC flight plan when, for the destination aerodrome:

(i) meteorological conditions as at the estimated time of use will be below the operator's established aerodrome operating minima for that operation; or

(ii) meteorological information is not available.

Note 1: Separate runways are two or more runways at the same aerodrome configured such that if one runway is closed, operations to the other runway(s) can be conducted.

Note 2: ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, contains guidance on planning operations to isolated aerodromes.

(c) [AAC] No person may commence an IFR flight in a helicopter,

(1) where no alternate aerodrome is required unless,

(i) The operation is conducted as general aviation: and

(ii) Available current meteorological information indicates that the following meteorological conditions will exist from 2 hours before to 2 hours after the ETA:

(A) A cloud base of at least 300 m (1000 ft) above the aerodrome elevation, or at least 120 m (400 ft) above the lowest applicable approach minimum, whichever is higher; and

(B) Visibility of at least 3 km (2 SM).

Note: These may be considered as minimum values where a reliable and continuous meteorological watch is maintained. When only an "area" type forecast is available, these values may be increased accordingly.

(2) without at least one destination alternate heliport listed in the flight plan unless the available information indicates that conditions, at the heliport of intended landing and at least one alternate heliport will, at the ETA, be at or above the heliport operating minima.

(d) [AOC] No person may commence an IFR flight in a helicopter:

(1) without at least one destination alternate heliport or landing location listed in the flight plan, unless the available information indicates that conditions at the heliport of intended landing will, at the estimated time of arrival, be at or above the heliport operating minima;

(2) without at least two destination alternate heliports, forecast to be at or above the helicopter operating minima, listed in the operational and ATC flight plan when, at the time of flight departure, the intended heliport destination is forecast to be below the helicopter operating minima; or

(3) If the heliport of intended landing is isolated and no alternate heliport or landing location is available, in which case a point of no return shall be determined; or

(4) Unless the operator has been approved by the Authority to specify appropriate incremental values for height of cloud base and visibility to be added to the operator's established heliport or landing location operating minima.

(e) The ceiling and visibility requirements for operations conducted in accordance with paragraphs 8.6.2.6(a) through (d) of this subsection may be reduced upon approval of the Authority for:

(1) Other categories of aircraft, such as powered-lift, and airships; and

(2) Commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, that contains the following:

(i) Capabilities of the operator;

(ii) Overall capability of the aeroplane and its systems;

(iii) Available aerodrome technologies, capabilities and infrastructure;

(iv) Quality and reliability of meteorological information;

(v) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(vi) Specific mitigation measures.

Note: ICAO Doc 9859, Safety Management Manual (SMM), and ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, contain guidance on performing a safety risk assessment and determining variations, including examples of variations.

8.6.2.7 INSTRUMENT FLIGHT RULES ALTERNATE AERODROME SELECTION CRITERIA

(a) If alternate minimums are published, no PIC may designate an alternate aerodrome in an IFR flight plan unless the current available forecast indicates that the meteorological conditions at the ETA at that alternate will be at or above:

(1) [AAC] Those published alternate minima upon take-off from the departure aerodrome; or

(2) [AOC] The operator's established minima for that operation upon

(i) take-off from the departure aerodrome, or

(ii) the point of in-flight re-planning.

(b) If alternate minimums are not published, and if there is no prohibition against using the aerodrome as an IFR planning alternate, each PIC shall ensure that the meteorological conditions at the ETA at that alternate will be at or above:

(1) For aeroplanes:

(i) For a PA procedure, a ceiling of at least 180 m (600 ft) and visibility of not less than 3 km (2 SM); or

(ii) For a NPA procedure, a ceiling of at least 240 m (800 ft) and visibility of not less than 5 km (3 SM).

(2) For helicopters:

(i) A ceiling 60 m (200 ft) above the minimum for the approach to be flown, and visibility at least 1 SM but never less than the minimum visibility for the approach to be flown: or

(ii) If no IAP has been published and no IAP has been issued by the Authority to the operator, for the alternate airport, the ceiling and visibility minima are those allowing descent from the MEA, approach, and landing under basic VFR.

(c) The Planning Minima Table will be used in selecting IFR alternate aerodromes.

Planning Minima

(Ceiling & RVR/visibility required, if applicable)

Type of Approach	**Aerodrome with**	
	At least two separate approach procedures based on two separate aids serving two separate runways (see note below)	At least two separate approach procedures based on two separate aids serving one runway or at least one approach procedure based on one aid serving one runway
Precision Approach CAT I, III (ILS, MLS)	PA CAT I minima	NPA minima
Precision Approach CAT 1 (ILS, MLS)	NPA minima	Circling minima or, if not available, NPA minima plus 60 m (200 ft)/1 000 m (3 300 ft)
Non-Precision Approach	The lower of NPA minima plus 60 m (200 ft)/1 000 m (3 300 ft) or circling minima	The higher of NPA minima plus 60 m (200 ft)/1 000 m (3 300 ft) or circling minima
Circling Approach	Circling minima	Circling minima

Note: Runways on the same aerodrome are considered to be separate runways when they are separate landing surfaces that may overlay or cross, such that if one of the runways is blocked it will not prevent the

planned type of operations on the other runway, and each of the landing surfaces has a separate approach based on a separate aid.

8.6.2.8 OFFSHORE ALTERNATES FOR HELICOPTER OPERATIONS

(a) No person may designate an offshore alternate landing site:

(1) when it is possible to carry enough fuel to have an on-shore alternate landing site, or

(2) when the environment around the offshore alternate is hostile.

Note: The selection of offshore alternates may be exceptional cases, the details of which have been approved by the Authority, and may not include payload enhancement in IMC.

(b) Each person selecting an off-shore alternate landing site shall consider the following:

(1) Until the point of no return, using an on-shore alternate. The offshore alternate may be used only after a point of no return.

(2) Attaining one engine inoperative performance capability before arrival at the alternate.

(3) Guaranteeing helideck availability.

(4) The meteorological information at the helideck shall be available from a source approved by the Authority.

(5) For IFR operations, an IAP shall be prescribed and available.

(6) Attaining mechanical reliability of critical control systems and critical components when determining the suitability of the alternate.

Note: The landing technique specified in the flight manual following control system failure may preclude the selection of certain helidecks as alternate aerodromes. The mechanical reliability of critical control systems shall be taken into account when determining the suitability of and necessity for an offshore alternate.

8.6.2.9 TAKE-OFF ALTERNATE AERODROMES—COMMERCIAL AIR TRANSPORT OPERATIONS

(a) No person may release or take-off an aeroplane without a suitable take-off alternate specified in the flight plan if either:

(1) it would not be possible to return to the aerodrome of departure, or

(2) meteorological conditions at the aerodrome of departure are below the operator's established aerodrome landing minima for that operation.

(b) Each operator shall ensure that each take-off alternate specified shall be located within the following flight time from the aerodrome of departure:

(1) For aeroplanes with two engines, 1 hour flight time at a one-engine-inoperative cruising speed, determined from the Aircraft Operating Manual, calculated in ISA and still-air conditions using the actual take-off mass; or

(2) For aeroplanes with three or more engines, 2 hours flight time at an all engines operating cruising speed, determined from the Aircraft Operating Manual, calculated in ISA and still-air conditions using the actual take-off mass; or

(3) For aeroplanes engaged in EDTO where an alternate aerodrome meeting the distance criteria of paragraph 8.6.2.9(b)(1) or (2) of this subsection is not available, the first available alternate aerodrome located within the distance of the operator's specified maximum diversion time considering the actual take-off mass.

(c) The ceiling and visibility requirements for operations conducted in accordance with paragraphs 8.6.2.9 (a) and (b) of this subsection may be reduced upon approval of the Authority for:

(1) Commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, that contains the following:

(i) Capabilities of the operator;

(ii) Overall capability of the aeroplane and its systems;

(iii) Available aerodrome technologies, capabilities and infrastructure;

(iv) Quality and reliability of meteorological information;

(v) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(vi) Specific mitigation measures.

Note: ICAO Doc 9859, Safety Management Manual, and ICAO Doc 9976, Flight Planning and Fuel Management Manual, contain guidance on performing a safety risk assessment and on determining variations, including examples of variations.

8.6.2.10 MAXIMUM DISTANCE FROM AN ADEQUATE AERODROME FOR AEROPLANES WITHOUT AN EXTENDED DIVERSION TIME OPERATIONS –[AOC]

(d) Unless the State of the Operator has issued a specific approval for EDTO, an AOC holder shall not operate an aeroplane with two or more engines over a route that contains a point further from an adequate aerodrome than, in the case of:

(1) Turbine-powered aeroplanes, the distance flown in 60 minutes at the one-engine-inoperative cruise speed determined in accordance with paragraph 8.6.2.10(b) of this subsection; or

(2) Piston-engined aeroplanes:

(i) The distance flown in 120 minutes at the one-engine-inoperative cruise speed determined in accordance with paragraph 8.6.2.10(b) of this subsection; or

(ii) 555 km (300 NM), whichever is less.

(e) An AOC holder shall determine a speed for the calculation of the maximum distance to an adequate aerodrome for each aeroplane with two or more engines operating, not exceeding Vmo based upon the true airspeed that the aeroplane can maintain with one engine inoperative under the following conditions:

(1) International Standard Atmosphere;

(2) Level flight:

(i) For turbine-powered aeroplanes at:

(A) FL 170; or

(B) The maximum FL to which the aeroplane, with one engine inoperative, can climb and maintain, using the gross rate of climb specified in the Aircraft Flight Manual, whichever is less.

(ii) For reciprocating-engine aeroplanes, at:

(A) FL 80; or

(B) The maximum FL to which the aeroplane, with one engine inoperative, can climb and maintain, using the gross rate of climb specified in the Aircraft Flight Manual, whichever is less.

(3) Maximum continuous thrust or power on the remaining operating engine;

(4) An aeroplane mass not less than that resulting from:

(i) Take-off at sea level at maximum certificated take-off mass until the time elapsed since take-off is equal to the applicable threshold prescribed in paragraph 8.6.2.10(a) of this subsection;

(ii) All engines climb to the optimum long range cruise altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in subparagraph 8.6.2.10(a) of this subsection; and

(iii) All engines cruise at the long range cruise speed at this altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in paragraph 8.6.2.10(a) of this subsection.

(f) An AOC holder shall ensure that the following data, specific to each type or variant, is included in the OM:

(1) The one-engine-inoperative cruise speed determined in accordance with paragraph 8.6.2.10(b) of this subsection; and

(1) The maximum distance from an adequate aerodrome determined in accordance with paragraphs 8.6.2.10(a) and (b) of this subsection.

Note: The speeds and altitudes (FLs) specified above are only intended to be used for establishing the maximum distance from an adequate aerodrome.

8.6.2.11 REQUIREMENTS FOR EXTENDED DIVERSION TIME OPERATIONS - AEROPLANES [AOC]

(a) An AOC holder shall not conduct operations beyond the threshold distance determined in accordance with Subsection 8.6.2.10 of this part unless approved to do so by the Authority. The specific approval shall identify the applicable threshold time established for each particular aeroplane and engine combination.

(b) In requesting EDTO approval, each AOC holder shall show to the satisfaction of the Authority that:

(1) FOR AEROPLANES:

(i) For all aeroplanes,

(A) the most limiting EDTO significant system time limitation, if any indicated in the Aircraft Flight Manual (directly or by reference) and relevant to that particular operation is not exceeded; and

(B) the additional fuel required by Subsection 8.6.2.15 shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by the Authority.

(ii) For aeroplanes with two turbine engines, the aeroplane is EDTO certified and the Authority has verified the:

(A) Reliability of the propulsion system;

(B) Airworthiness certification for EDTO of the aeroplane type; and

(C) EDTO maintenance programme; and

(D) Maintenance control manual or EDTO manual.

(2) It has conducted a safety risk assessment which demonstrates how an equivalent level of safety will be maintained, taking into account the following:

(i) Capabilities of the operator;

(ii) Overall reliability of the aeroplane;

(iii) Reliability of each time-limited system;

(iv) Relevant information from the aeroplane manufacturer; and

(v) Specific mitigation measures.

(c) Before conducting an EDTO flight, an AOC holder shall ensure that a suitable EDTO en-route alternate is available, within either the approved diversion time or a diversion time based on MEL-generated serviceability status of the aeroplane whichever is shorter.

(d) No AOC holder shall commence a flight unless, during the possible period of arrival, the required en-route alternate aerodrome will be available and the available information indicates that conditions at the aerodrome will be at or above the aerodrome operating minima approved for the operation.

(e) No AOC holder shall conduct operations beyond 60 minutes, from a point on a route to an en-route alternate aerodrome unless it ensures that:

(1) For all aeroplanes;

(i) En-route alternate aerodromes are identified; and

(ii) The most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;

(2) For aeroplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at identified en-route alternate aerodromes will be at or above the operator's established aerodrome operating minima for the operation at the estimated time of use; and

(3) these requirements are incorporated into the operators:

(i) operational control and flight dispatch procedures;

(ii) operating procedures; and

(iii) training programmes.

(f) No AOC Holder shall proceed beyond the threshold time approved by the Authority unless:

(1) the identified en-route alternate aerodromes have been re-evaluated for availability; and

(2) the most up to date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator's established aerodrome operating minima for that operation; or.

(3) conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use and an alternative course of action has been determined.

Note 1: Guidance on the establishment of an appropriate threshold time and on specific approval of EDTOs is contained in ICAO Annex 6, Part I, Attachment C, and in ICAO Doc 10085, Extended Diversion Time Operations Manual.

Note 2: FAA AC 120-42B (as amended), Extended Operations (ETOPS and Polar Operations), provides additional guidance.

8.6.2.12 EN-ROUTE ALTERNATE AERODROMES— EXTENDED DIVERSION TIME OPERATIONS [AOC]

(a) The PIC shall ensure that the required route alternate aerodromes for EDTO are selected and specified in ATC flight plans in accordance with the EDTO diversion time approved by the Authority.

(b) No person shall select an aerodrome as an EDTO en-route alternate aerodrome unless the appropriate weather reports or forecasts, or any combination thereof, indicate that during a period commencing 1 hour before and ending 1 hour after the expected time of arrival at the aerodrome, the weather conditions will be at or above the planning minima prescribed in the table below, and in accordance with the operator's EDTO approval.

(c) The ceiling and visibility requirements for operations conducted in accordance with paragraphs 8.6.2.12(a) and (b) of this subsection may be reduced upon approval of the Authority for:

(1) Commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, that contains the following:

(i) Capabilities of the operator;

(ii) Overall capability of the aeroplane and its systems;

(iii) Available aerodrome technologies, capabilities and infrastructure;

(iv) Quality and reliability of meteorological information;

(v) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(vi) Specific mitigation measures.

Note 1: ICAO Doc 9859, Safety Management Manual (SMM), and ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, provide guidance on performing a safety risk assessment and on determining variations, including examples of variations.

Note 2: The forecast weather criteria used in the selection of alternate aerodromes for IFR flight will also be used for the selection of EDTO alternates.

8.6.2.13 FUEL, OIL, AND OXYGEN PLANNING AND CONTINGENCY FACTORS

(a) No person may commence a flight unless he or she takes into account the fuel, oil, and oxygen needed to ensure the safe completion of the flight, including any reserves to be carried for contingencies.

(b) For aeroplanes in AOC operations, the amount of usable fuel to be carried shall, as a minimum, be based on:

(1) The following data:

(i) Current aeroplane-specific data derived from a fuel consumption monitoring system, if available; or

(ii) If current aeroplane-specific data is not available, data provided by the aeroplane manufacturer, and

(2) The operating conditions for the planned flight including:

(i) Anticipated aeroplane mass;

(ii) NOTAMs;

(iii) Current meteorological reports or a combination of current reports and forecasts;

(iv) ATC procedures, restrictions and anticipated delays; and

(v) The effects of deferred maintenance items and/or configuration deviations; and

(vi) Any other conditions that may delay the landing of the aeroplane or increase fuel, oil and/or oxygen consumption.

(c) The pre-flight calculation of usable fuel required shall include:

(1) TAXI FUEL. Which shall be the amount of fuel expected to be consumed before take-off, taking into account local conditions at the departure aerodrome and APU fuel consumption;

(2) TRIP FUEL. Which shall be the amount of fuel required to enable the aeroplane to fly from take-off until landing at the destination aerodrome, taking into account the operating conditions in paragraph 8.6.2.13(b)(2) of this subsection;

(3) CONTINGENCY FUEL. Which shall be the amount of fuel required to compensate for unforeseen factors. It shall not be less than 5 per cent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel but, in any case, shall not be lower than the amount required to fly for 5 minutes at holding speed at 450 m (1 500 ft) above the destination aerodrome in standard conditions;

Note: Unforeseen factors are those factors that could have an influence on the fuel consumption to the destination aerodrome, such as deviations of an individual aeroplane from the expected fuel consumption data, deviations from forecast meteorological conditions, extended delays, and deviations from planned routings and/or cruising levels.

(4) DESTINATION ALTERNATE FUEL. Which shall be:

(i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to:

(A) Perform a missed approach at the destination aerodrome;

(B) Climb to the expected cruising altitude;

(C) Fly the expected routing;

(D) Descend to the point where the expected approach is initiated; and

(E) Conduct the approach and landing at the destination alternate aerodrome; or

(ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in 8.6.2.13(c)(4)(i), required to enable the aeroplane to proceed to the destination alternate aerodrome which requires the greater amount of alternate fuel; or

(iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the aeroplane to fly for 15 minutes at holding speed at 450 m (1 500 ft) above destination aerodrome elevation in standard conditions; or

(iv) Where the aerodrome of intended landing is an isolated aerodrome:

(A) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or 2 hours, whichever is less; or

(B) For a turbine-engined aeroplane, the amount of fuel required to fly for 2 hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;

(5) FINAL RESERVE FUEL. Which shall be the amount of fuel on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required:

(i) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes; or

(ii) For a turbine-engined aeroplane, the amount of fuel required to fly for 30 minutes at holding speed at 450 m (1 500 ft) above aerodrome elevation in standard conditions;

(6) ADDITIONAL FUEL. Which shall be the supplementary amount of fuel required to enable the aeroplane to descend as necessary and proceed to land at an alternate aerodrome in the event of engine failure or loss of pressurization based on the assumption that such a failure occurs at the most critical point along the route; and

(7) DISCRETIONARY FUEL. Which shall be the extra amount of fuel to be carried at the discretion of the PIC.

(d) Operators shall determine one final reserve fuel value for each aeroplane type and variant in their fleet rounded up to an easily recalled figure.

(e) The use of fuel after flight commencement for purposes other than originally intended during pre-flight planning shall require a re-analysis and, if applicable, an adjustment of the planned operation.

Note: Nothing in this subsection precludes the in-flight amendment of a flight plan to re-plan that flight to another aerodrome, provided the requirements of this subsection can be complied with from the point where the flight is re-planned.

(f) For helicopters, each person computing the required minimum fuel and oil supply shall ensure that additional fuel and oil are carried to provide for the increased consumption that would result from any additional operating conditions in paragraph 8.6.2.13(b)(2) of this subsection, as applied to helicopters, and any of the following contingencies:

(1) Expected winds or other meteorological conditions;

(2) Possible variations in ATC routings

(3) Anticipated traffic delays;

(4) A complete IAP and possible missed approach at destination;

(5) Loss of pressurization en-route, if applicable;

(6) Loss of one power-unit en-route; and

(7) Any other conditions that may delay the landing of the helicopter or increase fuel, oil and/or oxygen (if applicable) consumption.

(g) IN-FLIGHT FUEL MANAGEMENT. The PIC shall:

(1) Continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome/heliport where a safe landing can be made with the planned final reserve fuel remaining upon landing;

(2) Request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome/heliport with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome/heliport;

(3) Advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome/heliport may result in landing with less than the planned final reserve fuel; and

(4) Declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome/heliport where a safe landing can be made is less than the planned final reserve fuel.

Note 1: The protection of final reserve fuel is intended to ensure a safe landing at any aerodrome when unforeseen occurrences may not permit safe completion of an operation as originally planned. Guidance on flight planning, including the circumstances that may require re-analysis, adjustment, and/or re-planning of the planned operation before take-off or en-route, is contained in ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual.

Note 2: The declaration of MINIMUM FUEL informs ATC that all planned landing site options have been reduced to a specific landing site of intended landing, that no precautionary landing site is available, and that any change to the existing clearance, or any air traffic delays, may result in landing with less than the planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delay occur.

Note 3: A precautionary landing site refers to a landing site, other than the site of intended landing, where it is expected that a safe landing can be made prior to the consumption of the planned final reserve fuel.

Note 4: The planned final reserve fuel refers to the value calculated in paragraph 8.6.2.13(c)(5) of this subsection and is the minimum amount of fuel required upon landing at any landing site. The declaration of MAYDAY MAYDAY MAYDAY FUEL informs ATC that all available landing options have been reduced to a specific site and a portion of the final reserve fuel may be consumed prior to landing.

Note 5: The pilot estimates with reasonable certainty that the fuel remaining upon landing at the nearest safe landing site will be less than the final reserve fuel taking into consideration the latest information available to the pilot, the area to be overflown (i.e., with respect to the availability of precautionary landing areas), meteorological conditions, and other reasonable contingencies.

Note 6: The words "MAYDAY FUEL" describe the nature of the distress conditions as required in ICAO Annex 10, Volume II: 5.3.2.1.1(b)(3).

(h) When conducting operations beyond 60 minutes from a point on a route to an en-route alternate aerodrome, each operator shall ensure that:

(1) En-route alternate aerodromes are identified; and

(2) The PIC has access to current information on the identified en-route alternate aerodromes, including operational status and meteorological conditions.

8.6.2.14 MINIMUM FUEL REQUIREMENTS FOR VISUAL FLIGHT RULES FLIGHTS

(a) [AAC] AEROPLANES. No person may commence a flight in an aeroplane under VFR unless, considering the wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed:

(1) For flights during the day, for at least 30 minutes thereafter;

(2) For flights during the night, for at least 45 minutes thereafter, and

(b) [AAC] HELICOPTERS. No person may commence a flight in a helicopter under VFR unless, considering the wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed:

(1) For 20 minutes thereafter; and

(2) Have an additional amount of fuel sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator to the satisfaction of the Authority.

8.6.2.15 MINIMUM REQUIREMENTS FOR INSTRUMENT FLIGHT RULES FLIGHTS

(a) [AAC] AEROPLANES. No person may commence a flight under IFR unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to:

(1) When a destination alternate aerodrome is required, fly from the aerodrome of intended landing to an alternate aerodrome, and after that, for at least 45 minutes at normal cruising altitude;

(2) When a destination alternate aerodrome is not required, fly to the aerodrome of intended landing and after that for at least 45 minutes at normal cruising altitude.

(b) [AOC] AEROPLANES. No person may commence a flight under IFR, or continue past the point of in-flight re-planning, unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to include the following:

(1) TAXI FUEL – which shall be the amount of fuel expected to be consumed before take-off taking into account local conditions at the departure aerodrome and APU fuel consumption;

(2) TRIP FUEL – which shall be the amount of fuel required to enable the aeroplane to fly from take-off, or the point of in-flight re-planning, until landing at the destination aerodrome taking into account the operating conditions in the data provided by the manufacturer;

(3) CONTINGENCY FUEL – which shall be the amount of fuel required to compensate for unforeseen factors. It shall be 5 per cent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel, but

in any case, shall not be lower than the amount required to fly for 5 minutes at holding speed at 450 m (1500 ft) above the destination aerodrome in standard conditions;

(4) DESTINATION ALTERNATE FUEL – which shall be:

(i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to:

(A) Perform a missed approach at the destination aerodrome;

(B) Climb to the expected cruising altitude;

(C) Fly the expecting routing;

(D) Descend to the point where the expected approach is initiated; and

(E) Conduct the approach and landing at the destination alternate aerodrome;

(ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in paragraph 8.6.2.15(4)(i) of this subsection, required to enable the aeroplane to proceed to the destination alternate aerodrome that requires the greater amount of alternate fuel; or

(iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the aeroplane to fly for 15 minutes at holding speed at 450 m (1500 ft) above destination aerodrome elevation in standard conditions; or

(iv) Where the aerodrome of intended landing is an isolated aerodrome:

(A) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or two hours, whichever is less; or

(B) For a turbine-engined aeroplane, the amount of fuel required to fly for 2 hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;

(5) FINAL RESERVE FUEL – which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required, or a pre-calculated value for each aeroplane type and variant in the fleet rounded up to an easily recalled figure:

(i) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes, under speed and altitude conditions specified by the Authority; or

(ii) For a turbine-engined aeroplane, the amount of fuel required to fly for 30 minutes at holding speed at 450 m (1500 ft) above aerodrome elevation in standard conditions;

(6) ADDITIONAL FUEL – which shall be the supplementary amount of fuel required if the minimum fuel calculated in accordance with trip fuel, contingency fuel, destination alternate fuel and final reserve fuel above is not sufficient to:

(i) Allow the aeroplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss or of pressurization, whichever requires the greater amount of fuel based on the assumption that such a failure occurs at the most critical point along the route:

(A) To fly for 15 minutes at holding speed at 450 m (1500 ft) above the aerodrome elevation in standard conditions; and

(B) Make an approach and landing;

(C) Allow an aeroplane engaged in EDTO to comply with the EDTO critical fuel scenario as established by the Authority; and

(D) Meet additional requirements not covered above.

Note: Fuel planning for a failure that occurs at the most critical point along a route may place the aeroplane in a fuel emergency situation.

(7) DISCRETIONARY FUEL – Which shall be the extra amount of fuel to be carried at the discretion of the PIC, or

(8) Notwithstanding the provisions in paragraphs 8.6.2.15(b)(1) through (7) of this subsection the Authority may approve a variation to these requirements provided the operator can demonstrate an equivalent level of safety will be maintained through a safety risk assessment that includes at least the following:

(i) Flight fuel calculations;

(ii) Capabilities of the operator to include:

(A) A data-driven method that includes a fuel consumption monitoring programme; and/or

(B) The advanced use of alternate aerodromes; and

(C) Specific mitigation measures.

Note: ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, contains guidance on the specific safety risk assessment, fuel consumption monitoring programmes, and the advanced use of alternate aerodromes.

(c) [AAC] Helicopters. No person may commence a flight under IFR unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to:

(1) When a destination alternate is required,

(i) Fly to and execute an approach, and a missed approach, at the heliport to which the flight is planned, and thereafter

(ii) fly for 30 minutes at a holding speed at 450 m (1500 ft) above the alternate under standard temperature conditions, and approach and land; and

(iii) have a reserve for contingencies specified by the operator and approved by the Authority.

(2) When a destination alternate is not required, to fly to the heliport to which the flight is planned and thereafter:

(i) fly for 30 minutes at a holding speed at 450 m (1500 ft) above the alternate under standard temperature conditions, and approach and land; and

(ii) have a reserve for contingencies specified by the operator and approved by the Authority.

8.6.2.16 FLIGHT PLANNING DOCUMENT DISTRIBUTION AND RETENTION—COMMERCIAL AIR TRANSPORT

(a) For commercial air transport operations, the PIC shall complete and sign the following flight preparation documents before departure:

(1) An operational flight plan, including NOTAMs and weather pertinent to the flight planning decisions regarding minimum fuel supply, en-route performance, and destination and alternate aerodromes

(2) A load manifest, showing the distribution of the load, the CG, take-off and landing mass and compliance with maximum operating mass limitations, and performance analysis; and

(3) An applicable aircraft technical log page, if mechanical irregularities were entered after a previous flight, maintenance or inspection functions were performed or an approval for return to service was issued at the departure aerodrome.

(b) No person may take-off an aircraft in commercial air transport unless all flight release documents, signed by the PIC, are retained and available at the point of departure.

(c) The PIC shall carry on the aircraft, to the destination aerodrome, a copy of the documents specified in paragraph 8.6.2.16(a) of this subsection.

(d) Completed flight preparation documents shall be kept by the AOC holder for a period of 3 months.

Note 1: The Authority may approve a different retention location where all documents can be available for subsequent review.

Note 2: The requirements for flight plans are contained in ICAO Annex 2 and ICAO Doc 4444, Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM).

8.6.2.17 AIRCRAFT LOADING, MASS AND BALANCE

(a) No person may operate an aircraft unless all loads carried are properly distributed and safely secured.

(b) No person may operate an aircraft unless the calculations for the mass of the aeroplane the CG location indicate that the flight can be conducted safely, taking into account the flight conditions expected.

Note: When load masters, load planners or other qualified personnel are provided by the AOC holder in a commercial air transport operation, the PIC may delegate these responsibilities, but shall ascertain that proper loading procedures are followed.

(c) For commercial air transport operations, no PIC may commence a flight unless the PIC is satisfied that the loading and mass and balance calculations contained in the load manifest are accurate and comply with the aircraft limitations.

8.6.2.18 MAXIMUM ALLOWABLE MASS TO BE CONSIDERED ON ALL LOAD MANIFESTS

(a) The PIC shall ensure that the maximum allowable mass for a flight does not exceed the maximum allowable take-off mass:

(1) For the specific runway and conditions existing at the take-off time; and

(2) Considering anticipated fuel and oil consumption that allows compliance with applicable en-route performance, landing mass, and landing distance limitations for destination and alternate aerodromes.

8.6.2.19 FLIGHT RELEASE REQUIRED—COMMERCIAL AIR TRANSPORT

(a) No person may start a flight under a flight following system without specific authority from the person authorised by the AOC holder to exercise operational control over the flight.

(b) No person may commence a passenger-carrying flight in commercial air transport unless a qualified person authorised by the AOC holder to perform operational control functions has issued a flight release for that specific operation or series of operations.

8.6.2.20 OPERATIONAL FLIGHT PLAN—COMMERCIAL AIR TRANSPORT

(a) No person may commence a flight unless the operational flight plan has been signed by the PIC.

(b) A PIC may sign the operational flight plan only when the PIC and the person authorised by the operator to exercise operational control have determined that the flight can be safely completed.

Note: The operational flight plan shall include the routing and fuel calculations, with respect to the meteorological and other factors expected, to complete the flight to the destination and all required alternates.

(c) The PIC signing the operational flight plan shall have access to the applicable flight planning information for fuel supply, alternate aerodromes, weather reports and forecasts and NOTAMs for the route and aerodrome.

(d) No person may continue a flight from an intermediate aerodrome without a new operational flight plan if the aircraft has been on the ground for more than 6 hours.

8.6.2.21 TIME CAPABILITY OF CARGO COMPARTMENT FIRE SUPPRESSION SYSTEM

(a) No person may plan a flight if the diversion time to an aerodrome where a safe landing could be made exceeds the cargo compartment fire suppression time capability of the aeroplane, when one is identified in the relevant aeroplane documentation, unless the Authority specifies a reduction of the operational safety margin.

Note 1: Cargo compartment fire suppression time capabilities will be identified in the relevant aeroplane documentation when they are to be considered for the operation.

Note 2: Fifteen minutes is an operational safety margin commonly retained for that purpose.

Note 3: Refer to ICAO Annex 6, Part I: 4.7 and Attachment B, for considerations of time capability of cargo compartment fire suppression systems for aeroplanes engaged in EDTO.

8.7 AIRCRAFT OPERATING AND PERFORMANCE LIMITATIONS

8.7.1 ALL AIRCRAFT

8.7.1.1 APPLICABILITY

(a) This Section prescribes the operating and performance limitations for all civil aircraft.

8.7.1.2 GENERAL

(a) No person may operate an aircraft that:

(1) Exceeds its designed performance limitations for any operation, as established by the State of Registry;

(2) Exceeds the operating limitations contained in the Aircraft Flight Manual, or its equivalent;

(3) Exceeds the terms of its certificate of airworthiness; or

(4) Exceeds the mass limitations, if applicable, imposed by the terms of its noise certification standards, as contained in the applicable part of ICAO Annex 16, Volume I, unless otherwise approved by the Authority.

8.7.1.3 AIRCRAFT PERFORMANCE CALCULATIONS

(a) Each operator shall ensure that the performance data contained in the Aircraft Flight Manual, Rotorcraft Flight Manual, or other authorised source is used to determine compliance with the appropriate requirements of 8.7 of this part.

(b) When applying performance data, each person performing calculations shall account for all factors that significantly affect the performance of the aircraft configuration, including, but not limited to, the:

(1) Mass of the aeroplane;

(2) Operating procedures;

(3) Pressure-altitude appropriate to the elevation of the aerodrome;

(4) Runway slope;

(5) Ambient temperature;

(6) Wind;

(7) Surface conditions of the runway at the expected time of use (e.g., the presence of snow, slush, water and/or ice for landplanes, water surface condition for seaplanes); and

(8) Operation of any system or systems that may have an adverse effect on performance.

(c) The factors described in paragraph 8.7.1.3(b) of this subsection shall be taken into account directly as operations parameters or indirectly by means of allowances or margins, that may be provided in the design performance limits or in the terms of the AOC in accordance with which the aeroplane is being operated.

Note 1: The code of performance reflects, for the conduct of operations, both the various phases of flight and the operational environment. ICAO Doc 10110, Helicopter Code of Performance Development Manual, provides guidance to assist States in establishing a code of performance.

Note 2: Guidelines for using runway surface condition information on board aircraft are contained in ICAO Doc 9981, Procedures for Air Navigation Services – Aerodromes (PANS-Aerodromes), and ICAO Doc 10064, Aeroplane Performance Manual.

8.7.1.4 GENERAL MASS AND OBSTRUCTION CLEARANCE LIMITATIONS

(a) No person may take-off an aircraft without ensuring that the maximum allowable mass for a flight does not exceed the maximum allowable take-off or landing mass, or any applicable en-route performance or landing distance limitations considering the:

(1) Condition of the take-off and landing areas to be used;

(2) Gradient of runway to be used (landplanes only);

(3) Pressure altitude;

(4) Ambient temperature;

(5) Current and forecast winds; and

(6) Any known conditions (e.g., atmospheric and aircraft configuration) that may adversely affect aircraft performance, or compliance with noise certification standards if required.

(b) No person may take-off an aircraft at a mass that, assuming normal engine operation, cannot safely clear all obstacles during all phases of flight, including all points along the intended en-route path or any planned diversions.

8.7.2 AIRCRAFT USED IN COMMERCIAL AIR TRANSPORT

8.7.2.1 APPLICABILITY

(a) This Section prescribes aircraft performance and operating limitations for aircraft used in commercial air transport operations, except for those used by air transport operators holding a special authorization or waiver granted by the Authority, that exempts the aircraft from specific operating and performance limitations.

8.7.2.2 GENERAL

(a) Each person operating an aircraft engaged in commercial air transport shall comply with the provisions of Section 8.7.2. of this part.

(b) Each person operating a rotorcraft identified as Class 1, 2, or 3 in international commercial air transport shall comply with the code of performance prescribed in IS: 8.7.2.2(B).

(c) The Authority may grant exemptions in accordance with Part 1 of these regulations, from the requirements of Section 8.7.2 of this part if special circumstances make a literal observance of a requirement unnecessary for safety.

(d) Where full compliance with the requirements of Section 8.7.2 of this part cannot be shown due to specific design characteristics (e.g., seaplanes, airships, or supersonic aircraft), the operator shall apply approved performance standards that ensure a level of safety not less restrictive than those of relevant requirements of this Section.

(e) No person may operate in revenue passenger-carrying a single-engine aircraft or an aircraft type certificated for operation by a single pilot unless that aircraft is continually operated in daylight, VFR, excluding over-the-top, and over routes and diversions therefrom that permit a safe forced landing to be executed in the event of an engine failure.

(1) Notwithstanding Subsection 8.7.2.2(e) of this subsection, the Authority may approve single-pilot operations in propeller driven, turbine-powered aircraft under IFR, at night, or under IMC for aircraft with a maximum certificated take-off mass of 5 700 kg (12 566 lb) or less and a maximum approved passenger seating configuration of nine or less, provided it meets the equipment requirements of Part 7 of these regulations.

(2) Notwithstanding paragraph 8.7.2.2(e)(1) of this subsection, the Authority may approve single-pilot operations in propeller-driven, turbine-powered aircraft under IFR, at night, or under IMC for aircraft with a maximum certificated take-off mass of 5 700 kg (12 566 lb) or less with a passenger seating configuration of more than 9 passengers if the aircraft is type certificated for operations by a single pilot, provided it meets the equipment requirements of Part 7 of these regulations and the Authority has authorised an exemption from paragraph 8.7.2.2(e)(1) of this subsection in the operator's operations specifications. If such operations are to be conducted outside Curacao, the State shall have an arrangement with the States where operations will be conducted.

Note: Subsection 8.7.2.2(e)(2) of this subsection is not currently in compliance with ICAO Annex 6, Part I: 4.9.1, but is included here at the request of States that operate aircraft with a passenger seating configuration of 14. ICAO is giving consideration to changing the passenger seating configuration requirements of nine or less in propeller-driven aircraft.

(f) No person may operate a multi-engine aircraft in revenue passenger-carrying operations that is unable to comply with any of the performance limitations prescribed in 8.7.2.5 through 8.7.2.9 of this part unless that aircraft is continually operated:

(1) In daylight;

(2) VFR, excluding over-the-top operations; and

(3) At a mass that will allow it to climb, with the critical engine inoperative, at least 15 m (50 ft) a minute when operating at the MEAs of the intended route or any planned diversion, or at 1500 m (5,000 ft) MSL, whichever is higher.

(g) Multiengine aircraft that are unable to comply with paragraph 8.7.2.2(f) of this subsection are, for the purpose of this section, considered to be single-engine aircraft and shall comply with the requirements of paragraph 8.7.2.2(e) of this subsection.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.1.1 and 3.2.2.1, provides additional guidance.

8.7.2.3 SINGLE AND MULTI-ENGINE AEROPLANE OPERATIONS

(a) No person may operate a single-engine aeroplane in revenue passenger-carrying operations unless that aeroplane is continually operated in daylight, VFR, and over such routes and diversions therefrom that permit a safe forced landing to be executed in the event of an engine failure.

(1) Notwithstanding paragraph 8.7.2.3(a) of this subsection, the Authority may approve single-engine operations in propeller-driven, turbine-powered aeroplanes under IFR, at night, or under IMC for aeroplanes with a maximum certificated take-off mass of 5 700 kg (12 566 lb)

or less and a maximum approved passenger seating configuration of nine or less, provided it meets the equipment requirements of Part 7 of these regulations.

(2) Notwithstanding paragraph 8.7.2.3(a)(1) of this subsection, the Authority may approve single-engine operations in propeller-driven, turbine-powered aeroplanes under IFR, at night, or under IMC for aeroplanes with a maximum certificated take-off mass of 5 700 kg (12 566 lb) or less with a passenger seating configuration of more than nine passengers if the aeroplane is type certificated for operations by a single pilot, provided it meets the equipment requirements of Part 7 of these regulations and the Authority has authorised an exemption from paragraph 8.7.2.3(a)(1) of this subsection in the operator's operations specifications. If such operations are to be conducted outside Curacao, Curacao shall have an arrangement with the States where operations will be conducted

(b) No person shall operate a single-engine turbine-powered aeroplanes at night and/or in IMC unless the airworthiness certification of the aeroplane is appropriate and acceptable to the Authority and the overall safety of the operation is consistent with commercial air transportation operations as provided by:

(1) The reliability of the turbine engine;

(2) The operator's maintenance procedures, operating practices, and flight dispatch procedures;

(3) Crew training programmes; and

(4) Equipment and additional requirements provided in accordance with paragraph 8.7.2.3(d) of this subsection.

(c) No person shall operate a single-engine turbine-powered aeroplane at night and/or in IMC unless the aeroplane has an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 01 January 2005 shall have an automatic trend monitoring system.

(d) IS: 8.7.2.3 prescribes additional airworthiness and operational requirements applicable to the operation of single-engine turbine-powered aeroplanes at night and/or in IMC with respect to:

(1) Turbine engine reliability

(2) Systems and equipment

(3) MEL;

(4) Aircraft Flight Manual information

(5) Event reporting

(6) Operator planning

(7) Flight crew experience, training and checking

(8) Route limitations over water; and

(9) Operator certification or validation

(e) No person may operate a multi-engine aeroplane in revenue passenger-carrying operations that is unable to comply with any of the performance limitations of 8.7.2.4 through 8.7.2.8 of this part unless that aeroplane is continually operated:

(1) In daylight;

(2) In VFR, excluding over the top operations; and

(3) At a mass that will allow it to climb, with the critical engine inoperative, at least 15 m (50 ft) a minute when operating at the MEAs of the intended route or any planned diversion, or at 1500 m (5000 ft) MSL, whichever is higher.

(f) Multi-engine aeroplanes that are unable to comply with paragraph 8.7.2.3(e)(3) of this subsection are, for the purpose of this section, considered to be a single-engine aeroplane and shall comply with the requirements of paragraph 8.7.2.3(a) of this subsection.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.1.1 and 3.2.2.1, provides additional guidance.

8.7.2.4 AIRCRAFT PERFORMANCE CALCULATIONS

(a) No person may take off an aircraft used in commercial air transport without ensuring that the applicable operating and performance limitations required for this subsection can be accurately computed based on the Aircraft Flight Manual, Rotorcraft Flight Manual, or other data source approved by the Authority.

(b) Each person calculating performance and operating limitations for aircraft used in commercial air transport shall ensure that performance data used to determine compliance with this section can, during any phase of flight, accurately account for:

(1) Any reasonably expected adverse operating conditions that may affect aircraft performance;

(2) One engine failure for aircraft having two engines, if applicable; and

(3) Two engine failure for aircraft having three or more engines, if applicable.

(c) When calculating the performance and limitation requirements of 8.7.2.5 through 8.7.2.9 of this part, each person performing the calculation shall, for all engines operating and for inoperative engines, accurately account for:

(1) In all phases of flight:

(i) The effect of fuel and oil consumption on aircraft mass;

(ii) The effect of fuel consumption on fuel reserves resulting from changes in flight paths, winds, and aircraft configuration;

(iii) The effect of fuel jettisoning on aircraft mass and fuel reserves, if applicable and approved;

(iv) The effect of any ice protection system, if applicable and weather conditions require its use;

(v) Ambient temperatures and winds along intended route and any planned diversion; and

(vi) Flight paths and minimum altitudes required to remain clear of obstacles; and

(2) During take-off and landing:

(i) The condition of the take-off runway or area to be used, including any contaminates (e.g., water, slush, snow, ice);

(ii) The gradient of runway to be used;

(iii) The runway length including clearways and stopways, if applicable;

(iv) Pressure altitudes at take-off and landing sites;

(v) Current ambient temperatures and winds at take-off;

(vi) Forecast ambient temperatures and winds at each destination and planned alternate landing site;

(vii) The ground handling characteristics (e.g., braking action) of the type of aircraft; and

(viii) Landing aids and terrain that may affect the take-off path, landing path, and landing roll.

Note 1: Where conditions are different from those on which the performance is based, compliance may be determined by interpolation or by computing the effects of changes in the specific variables, if the results of the interpolation or computations are substantially as accurate as the results of direct tests.

Note 2: To allow for wind effect, take-off and landing data based on still air may be corrected by taking into account not more than 50 per cent of any reported headwind component and not less than 150 per cent of any reported tailwind component.

8.7.2.5 TAKE-OFF LIMITATIONS

(a) Aeroplanes. No person may take-off an aeroplane used in commercial air transport unless the following requirements are met when determining the maximum permitted take-off mass:

(1) The take-off run shall not be greater than the length of the runway.

(2) For turbine-powered aeroplanes:

(i) The take-off distance shall not exceed the length of the runway plus the length of any clearway, except that the length of any clearway included in the calculation shall not be greater than one-half the length of the runway; and

(ii) The accelerate-stop distance shall not exceed the length of the runway, plus the length of any stopway, at any time during take-off until reaching V1.

(3) For reciprocating-engine aeroplanes:

(i) The accelerate-stop distance shall not exceed the length of the runway at any time during take-off until reaching V1.

(4) If the critical engine fails at any time after the aeroplane reaches V1, to continue the take-off and reach a height, as indicated by the take-off path data, before passing over the end of the runway, either:

(i) By a height of at least 9 m (35 ft) vertically for turbine-powered aeroplanes or 15 m (50 ft) for reciprocating-engine aeroplanes; and

(ii) By at least 60 m (200 ft) horizontally within the aerodrome boundaries and by at least 90 m (300 ft) horizontally after passing the boundaries, without banking more than 15 degrees at any point on the take-off flight path.

(b) Helicopters. No person may take-off a helicopter used in commercial air transport that, in the event of a critical engine failure, cannot:

(1) For Class 1 helicopters:

(i) At or before the take-off decision point, discontinue the take-off and stop within the rejected take-off area; or

(ii) After the take-off decision point, continue the take-off and then climb, clearing all obstacles along the flight path, until a suitable landing site is found.

(2) For Class 2 helicopters:

(i) Before reaching a defined point after take-off, safely execute a forced landing within the rejected take-off area, or

(ii) At any point after reaching a defined point after take-off, continue the take-off and then climb, clearing all obstacles along the flight path, until a suitable landing site is found.

(3) For Class 3 helicopters:

(i) Clear the obstacles along its flight path by an adequate margin; or

(ii) Maintain minimum flight altitude; or

(iii) At engine failure permit a safe, forced landing.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.1.1, 3.2.5.1, and 3.2.5.2, and ICAO Doc 10064, Aeroplane Performance Manual, provide additional guidance.

8.7.2.6 EN-ROUTE LIMITATIONS- AEROPLANE—ALL ENGINES OPERATING

(a) No person may take off a reciprocating-engine aeroplane used in commercial air transport at a mass that does not allow a rate of climb of at least 6.9 V_{so}, (that is, the number of feet per minute obtained by multiplying the aeroplane's minimum steady flight speed by 6.9) with all engines operating, at an altitude of at least 300 m (1 000 ft) above all terrain and obstructions within 10 miles of each side of the track.

8.7.2.7 EN-ROUTE LIMITATIONS—ONE ENGINE INOPERATIVE

(a) AEROPLANES. No person may take-off an aeroplane used in commercial air transport having two engines unless that aeroplane can, in the event of a power failure at the most critical point en-route, continue the flight to a suitable aerodrome where a landing can be made while allowing:

(1) For reciprocating-engine aeroplanes:

(i) At least a rate of climb of (0.079-0.106/N) $V_{so}2$ (when V_{so} is expressed in knots) at an altitude of 300 m (1 000 ft) above all terrain and obstructions within 9.3 km (5 NM) on each side of the intended track; and

(ii) A positive slope at an altitude of at least 450 m (1500 ft) above the aerodrome where the aeroplane is assumed to land.

(2) For turbine-powered transport category aeroplanes:

(i) A positive slope at an altitude of at least 300 m (1000 ft) above all terrain and obstructions within 9.3 km (5 NM), on each side of the intended track;

(ii) A net flight path from cruising altitude to the intended landing aerodrome that allows at least 600 m (2000 ft) clearance above all terrain and obstructions within 9.3 km (5 NM), on each side of the intended track; and

(iii) A positive slope at an altitude of at least 450 m (1500 ft) above the aerodrome where the aeroplane is assumed to land;

Note 1: The climb rate specified in paragraph 8.7.2.7(a)(1)(i) of this subsection may be amended to 0.026 $V_{so}2$ for large transport category aircraft issued a type certificate before 1953.

Note 2: The 9.3 km (5 NM) clearance margin stated in paragraph 8.7.2.7(a) of this subsection shall be increased to 18.5 km (10 NM) if navigational accuracy does not meet the 95% containment level.

(b) HELICOPTERS. No person shall take-off a helicopter used in commercial air transport having two engines unless that helicopter can, in the event of the critical engine failing at any point in the en-route phase, continue the flight to the destination or alternate landing site without flying below the minimum flight altitude at any point and clearing all obstacles in the approach path by a safe margin.

Note 3: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.2 and 3.2.5.4, provides additional guidance.

8.7.2.8 EN-ROUTE LIMITATIONS—TWO ENGINES INOPERATIVE

(a) AEROPLANES. No person may take-off an aeroplane used in commercial air transport having three or more engines at such a mass where there is no suitable landing aerodrome within 90 minutes at any point along the intended route (with all engines operating at cruising power), unless that aeroplane can, in the event of simultaneous power failure of two critical engines at the most critical point along that route, continue to a suitable landing aerodrome while allowing:

(1) For turbine-powered aeroplanes:

(i) A net flight path (considering the ambient temperatures anticipated along the track) clearing vertically by at least 600 m (2000 ft) all terrain and obstructions within 9.3 km (5 NM) on each side of the intended track;

(ii) A positive slope at 450 m (1500 ft) above the aerodrome of intended landing; and

(iii) Enough fuel to continue to the aerodrome of intended landing, to arrive at an altitude of at least 450 m (1500 ft) directly over the aerodrome, and thereafter to fly for 15 minutes at cruise power.

Note: The consumption of fuel and oil after the engine failure is the same as the consumption that is allowed for in the net flight path data in the Aircraft Flight Manual.

(2) For reciprocating-engine aeroplanes:

(i) A rate of climb at 0.013 $(V_{so})^2$ feet per minute (that is, the number of feet per minute is obtained by multiplying the number of knots squared by 0.013) at an altitude of 300m (1000 ft) above the highest ground or obstruction within 18.6 km (10 NM) on each side of the intended track, or at an altitude of 1500 m (5000 ft), whichever is higher; and

(ii) Enough fuel to continue to the aerodrome of intended landing and to arrive at an altitude of at least 300 m (1000 ft) directly over that aerodrome.

Note 1: When the two engines of the reciprocating-engine aeroplane are predicted to fail at an altitude above the prescribed minimum altitude, compliance with the prescribed rate of climb need not be shown during the descent from the cruising altitude to the prescribed minimum altitude, if those requirements can

be met once the prescribed minimum altitude is reached, and assuming descent to be along a net flight path and the rate of descent to be 0.013 $V_{so}2$ greater than the rate in the approved performance data.

Note 2: If fuel jettisoning is authorised (or planned), the aeroplane's mass at the point where the two engines fail is considered to be not less than that which would include enough fuel to proceed to an aerodrome and to arrive at an altitude of at least 300 m (1000 ft) directly over that aerodrome.

(b) Helicopters. No person shall take-off a Class 1 or Class 2 helicopter used in commercial air transport having three or more engines unless that helicopter can, in the event of two critical engines failing simultaneously at any point in the en-route phase, continue the flight to a suitable landing site.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.3 and 3.2.5.5, provides additional guidance.

8.7.2.9 LANDING LIMITATIONS

(a) AEROPLANES. No person may take-off an aeroplane used in commercial operations unless its mass on arrival at either the intended destination aerodrome or any planned alternate aerodrome would allow a full stop landing from a point 15 m (50 ft) above the intersection of the obstruction clearance plane and the runway, and within:

(1) For turbine-powered aeroplanes, 60 per cent of the effective length of each runway; and

(2) For reciprocating-engine aeroplanes, 70 per cent of the effective length of each runway.

Note: Guidelines for using runway surface condition information on board aircraft are contained in ICAO Doc 10064, Aeroplane Performance Manual.

(b) For the purpose of determining the allowable landing mass at the destination aerodrome, each person determining the landing limit shall ensure that:

(1) The aeroplane is landed on the most favourable runway and in the most favourable direction, in still air; or

(2) The aeroplane is landed on the most suitable runway considering the probable wind velocity and direction, runway conditions, the ground handling characteristics of the aeroplane, and other conditions such as landing aids and terrain.

Note: If the runway at the landing destination is reported or forecast to be wet or slippery, the landing distance available shall be at least 115 per cent of the required landing distance unless, based on a showing of actual operating landing techniques on wet or slippery runways, a shorter landing distance (but not less than that required paragraph 8.7.2.9(a) of this subsection has been approved for a specific type and model aeroplane and this information is included in the Aircraft Flight Manual.

(c) A turbine-powered transport category aeroplane that would be prohibited from taking off because it could not meet the requirements of paragraph 8.7.2.9(a)(1) of this subsection may take off if an alternate aerodrome is specified that meets all the requirements of paragraph 8.7.2.9(a) of this subsection.

(d) HELICOPTERS. No person may take-off a helicopter used in commercial air transport unless, with all engines operating on arrival at the intended destination landing site or any planned alternate landing, it can clear all obstacles on the approach path and can land and stop within the landing distance available.

(e) HELICOPTERS. No person may take-off a helicopter used in commercial air transport unless, in the event of any engine becoming inoperative in the approach and landing phase on arrival at the intended destination landing site or any planned alternate landing, it can:

(1) For Class 1 helicopters:

(i) Before the landing decision point, clear all obstacles on the approach path and be able to land and stop within the landing distance available or to perform a balked landing and clear all obstacles in the flight path by an adequate margin; or

(ii) After the landing decision point, land and stop within the landing distance available.

(2) For Class 2 helicopters:

(i) Before reaching a defined point before landing, safely execute a forced landing within the landing distance available.

(3) For Class 3 helicopters:

(i) Safely execute a forced landing within the landing distance available.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.4.1, 3.2.4.4.2, 3.2.4.4.3, 3.2.5.6, and 3.2.5.7, provides additional guidance.

8.7.2.10 ADDITIONAL REQUIREMENTS FOR CLASS 3 HELICOPTERS OPERATING IN INSTRUMENT METEOROLOGICAL CONDITIONS

(a) Except for special VFR flights, no person may operate a performance Class 3 helicopter in IMC unless:

(1) The surface environment over which the operation is to be performed is acceptable to the Authority;

(2) The helicopter is certificated for flight under IFR; and

(3) The operation is approved by the Authority taking into consideration the overall level of safety provided by:

(i) The reliability of the engines; and

(ii) The operator's maintenance procedures, operating practices, crew training programmes; and equipment including the operator's vibration health monitoring practices for the tail-rotor drive system.

(b) Except for special VFR flights, no person may operate a performance Class 3 helicopter in IMC unless the operator has an engine trend monitoring system and uses the instruments, systems and operational/maintenance procedures to monitor the engines that are recommended by the helicopter manufacturer.

Note: See ICAO Annex 6, Part III, Chapter 3, for additional guidance on helicopter performance operating limitations.

8.8 FLIGHT RULES

8.8.1 ALL OPERATIONS

8.8.1.1 OPERATION OF AIRCRAFT ON THE GROUND

(a) No person may taxi an aircraft on the movement area of an aerodrome unless the person at the controls:

(1) Has been authorised by the owner, the lessee, or a designated agent;

(2) Is fully competent to taxi the aircraft;

(3) Is qualified to use the radio if radio communications are required; and

(4) Has received instruction from a competent person in respect of aerodrome layout, and where appropriate, information on routes, signs, marking, lights, ATC signals and instructions, and phraseology and procedures, and is able to conform to the operational standards required for safe aircraft movement at the aerodrome.

(b) No person shall cause a helicopter rotor to be turned under power unless there is a qualified pilot at the controls.

(c) No person shall taxi an aircraft under the guidance of a signalman unless:

(1) The standard marshalling signals to the aircraft are provided in a clear and precise manner using the signals as prescribed by the Authority in IS: 8.8.2.11.

(2) The signalman is wearing a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation; and

(3) The signalman and all participating ground personnel are using daylight-fluorescent wands, table-tennis bats or gloves for all signalling during daylight hours and illuminated wands at night or in low visibility.

8.8.1.2 TAKE-OFF CONDITIONS

(a) Before commencing take-off, a PIC shall ensure that:

(1) According to the available information, the weather at the aerodrome and the condition of the runway intended to be used will allow for a safe take-off and departure; and

(2) The RVR or visibility in the take-off direction of the aircraft is equal to or better than the applicable minimum.

8.8.1.3 FLIGHT INTO KNOWN OR EXPECTED ICING

(a) No person may take-off an aircraft or continue to operate an aircraft en-route when icing conditions are expected or encountered, without ensuring that the aircraft is certified for icing operations and has sufficient operational de-icing or anti-icing equipment.

(b) No person may take-off an aircraft when frost, ice or snow is adhering to the wings, control surfaces, propellers, engine inlets or other critical surfaces of the aircraft which might adversely affect the performance or controllability of the aircraft.

(c) For commercial air transport operations, no person may take-off an aircraft when conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless the aircraft has been inspected for icing, and the procedures approved for the AOC holder by the Authority are followed to ensure ground de-icing and anti-icing is accomplished.

8.8.1.4 ALTIMETER SETTINGS

(a) Each person operating an aircraft except a balloon or a glider, shall maintain the cruising altitude or FL by reference to an altimeter setting.

(b) The lowest usable FL is determined by the atmospheric pressure in the area of operation.

(c) The flight crew shall use the altimeter settings provided by the ATC service of Curaçao.

Note: In areas of the world where it may not be possible to get an altimeter setting, reference the State's procedures in the AIP.

8.8.1.5 MINIMUM SAFE ALTITUDES—GENERAL

(a) Except when necessary for take-off or landing, no person may operate an aircraft below the following altitudes:

(b) ANYWHERE. An altitude allowing, if a power unit fails, continuation of flight or an emergency landing without undue hazard to persons or property on the surface.

(c) OVER CONGESTED AREAS. Over any congested area of a city, town, or settlement, or over any open-air assembly of persons, an altitude of 300 m (1000 ft) above the highest obstacle within a horizontal radius of 600 m (2000 ft) of the aircraft.

(d) OVER OTHER THAN CONGESTED AREAS. An altitude of 150 m (500 ft) above the surface, except over open water or sparsely populated areas where the aircraft may not be operated closer than 150 m (500 ft) to any person, vessel, vehicle, or structure.

(e) HELICOPTERS. Pilots of helicopters are not subject to the proximity restrictions provided they are operated in a manner that is not hazardous to persons and property on the surface. The PIC of a helicopter shall comply with any routes or altitudes for the area that are prescribed for helicopters by the Authority.

(f) Altitudes are prescribed by ICAO Annex 2: 3.1.2, 4.6; 5.1.2.

8.8.1.6 MINIMUM SAFE VISUAL FLIGHT RULES ALTITUDES

(a) Except when necessary for take-off or landing, no person may operate an aircraft below the following altitudes:

(1) During the day, under VFR, no person may operate an aircraft at an altitude less than 300 m (1000 ft) above the surface or within 300 m (1000 ft) of any mountain, hill, or other obstruction to flight; and

(2) At night, under VFR, no person may operate an aircraft at an altitude less than 300 m (1000 ft) above the highest obstacle within a horizontal distance of 8 km (5 SM) from the centre of the intended course, or, in designated mountainous areas, less than 600 m (2000 ft) above the highest obstacle within a horizontal distance of 8 km (5 SM) from the centre of the intended course.

8.8.1.7 INSTRUMENT APPROACH OPERATING MINIMA

(a) No person may operate to or from an aerodrome using operating minima lower than those which may be established for that aerodrome by the State of the Aerodrome, unless that State specifically approves that operation in accordance with the provisions prescribed in IS: 8.8.1.7.

(1) For commercial operators, the State of the Operator, and for general aviation, the State of Registry, shall authorise operational credit(s) for operations with aeroplanes equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS, or CVS. Where the operational credit relates to LVO, the State of the Operator shall issue a specific approval. Such authorisations shall not affect the classification of the IAP.

(2) Operational credit includes:

(i) For the purposes of an approach ban, a minima below the aerodrome operating minima;

(ii) Reducing or satisfying the visibility requirements; or

(iii) Requiring fewer ground facilities as compensated for by airborne capabilities.

Note 1: Guidance on operational credit for aircraft equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS, and CVS is contained in ICAO Annex 6, Part I, Attachment I, and ICAO Doc 9365, Manual of All-Weather Operations.

Note 2: Information regarding a HUD or equivalent displays, including references to RTCA and EUROCAE documents, is contained in ICAO Doc 9365, Manual of All-Weather Operations.

Note 3: Automatic landing system – helicopter is an automatic approach using airborne systems that provide automatic control of the flight path to a point aligned with the landing surface, from which the pilot can transition to a safe landing by means of natural vision without the use of automatic control.

(b) No person may conduct instrument approach operations at an aerodrome below 800 m (2600 ft) visibility unless RVR information is provided.

(c) Instrument approach operations shall be classified based on the designed lowest operating minima below which an approach operation shall only be continued with the required visual reference as follows:

(1) Type A: an MDH or a DH at or above 75 m (250 ft); and

(2) Type B: a DH below 75 m (250 ft). Type B instrument approach operations are categorized as:

(i) CAT I: a DH not lower than 60 m (200 ft) with either a visibility not less than 800 m or an RVR not less than 550 m;

(ii) CAT II: a DH lower than 60 m (200 ft) but not lower than 30 m (100 ft) and an RVR not less than 300 m;

(iii) CAT IIIA: a DH lower than 30 m (100 ft) or no DH and an RVR less than 300 m or no RVR limitations

(d) The operating minima for 2D instrument approach operations using IAPs shall be determined by establishing an MDA or an MDH, minimum visibility and, if necessary, cloud conditions.

(e) The operating minima for 3D instrument approach operations using IAPs shall be determined by establishing a decision altitude or DH and the minimum visibility or RVR.

(f) The Authority shall issue a specific approval for instrument approach operations in low visibility which shall only be conducted when RVR information is provided

(g) For take-off in low visibility, the State of Registry shall issue a specific approval for the minimum take-off RVR.

Note 1: Where DH and RVR fall into different categories of operation, the instrument approach operation would be conducted in accordance with the requirements of the most demanding category (e.g., an operation with a DH in the range of CAT IIIA but with an RVR in the range of CAT IIIB would be considered a CAT IIIB operation or an operation with a DH in the range of CAT II but with an RVR in the range of CAT I would be considered a CAT II operation). This does not apply if the RVR and/or DH has been approved as operational credits

Note 2: The required visual reference means that section of the visual aids or approach area that should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach operation the required visual reference is the runway environment.

Note 3: Guidance on approach classification as it relates to instrument approach operations, procedures, runways, LVO and navigation systems is contained in ICAO Doc 9365, Manual of All-Weather Operations.

Note 4: For guidance on applying a continuous descent final approach (flight technique on NPA procedures (2D instrument approach operations Type A), refer to ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume I, Section 4, Chapter 1. Continuous descent final approach with manual calculation of the required rate of descent (see ICAO Doc 8168, Volume I, Part I, Section 4: 1.7 and 1.8) are considered 2D instrument approach operations. Continuous descent final approach with advisory VNAV guidance calculated by on-board equipment (see ICAO Doc 8168, Part II, Section 5) are considered 3D instrument approach operations.

8.8.1.8 CATEGORY II AND III OPERATIONS—GENERAL OPERATING RULES

(a) No person may operate a civil aircraft in a CAT II or CAT III operation unless:

(1) The PIC and CP of the aircraft hold the appropriate authorisations and ratings prescribed in Part 2 of these regulations;

(2) Each flight crew member has adequate knowledge of, and familiarity with, the aircraft and the procedures to be used; and

(3) The instrument panel in front of the pilot who is controlling the aircraft has appropriate instrumentation for the type of flight control guidance system that is being used.

(b) Unless otherwise authorised by the Authority, no person may operate a civil aircraft in a CAT II or CAT III operation unless each ground component required for that operation and the related airborne equipment is installed and operating.

(c) When the approach procedure being used provides for and requires the use of a DH, the authorised DH is the highest of the following:

(1) The DH prescribed by the approach procedure.

(2) The DH prescribed for the PIC; or

(3) The DH for which the aircraft is equipped.

(d) Unless otherwise authorised by the Authority, no pilot operating an aircraft in a CAT II or CAT III approach that provides and requires the use of a DH may continue the approach below the authorised DH unless the following conditions are met:

(1) The aircraft is in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres, and where that descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing; and

(2) At least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

(i) The approach light system, except that the pilot may not descend below 30 m (100 ft) above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable.

(ii) The threshold.

(iii) The threshold markings.

(iv) The threshold lights.

(v) The touchdown zone or touchdown zone markings; or

(vi) The touchdown zone lights.

(e) Unless otherwise authorised by the Authority, each pilot operating an aircraft shall immediately execute an appropriate missed approach whenever, before touchdown, the requirements of paragraph 8.8.1.8(d) of this subsection are not met.

(f) No person operating an aircraft using a CAT III approach without DH may land that aircraft except in accordance with the provisions of the Letter of Authorisation issued by the Authority.

(g) The Authority shall issue a specific approval for the minimum take-off RVR for take-off in low visibility.

(h) No person may conduct CAT II or CAT III instrument approaches and landing operations below 800 m (2600 ft) visibility unless RVR information is provided.

(i) The State of the Operator shall issue a specific approval for instrument approach operations in low visibility which shall only be conducted when RVR information is provided.

(j) Paragraphs 8.8.1.8(a) through (g) of this subsection do not apply to operations conducted by AOC holders issued a certificate under Part 9 of these regulations. No person may operate a civil aircraft in a CAT II or CAT III operation conducted by an AOC holder unless the operation is conducted in accordance with that AOC holder's approved training programme and operations specifications.

Note: CAT II approval is required prior to obtaining CAT III approval.

Note 2: ICAO Doc 9365, Manual of All-Weather Operations, provides additional guidance.

Note 3: In general, visibility for take-off is defined in terms of RVR. An equivalent horizontal visibility may also be used.

8.8.1.9 CATEGORY II AND CATEGORY III MANUAL

(a) Except as provided in paragraph 8.8.1.9(c) of this subsection, no person may operate a civil aircraft in a CAT II or CAT III operation unless:

(1) There is available in the aircraft a current and approved CAT II or CAT III manual, as appropriate, for that aircraft;

(2) The operation is conducted in accordance with the procedures, instructions, and limitations in the appropriate manual; and

(3) The instruments and equipment listed in the manual that are required for a particular CAT II or CAT III operation have been inspected and maintained in accordance with the maintenance programme contained in the manual.

(b) Each operator shall keep a current copy of each approved manual at its main base of operations and shall make each manual available for inspection upon request by the Authority.

(c) Paragraphs 8.8.1.9(a) and (b) of this subsection do not apply to operations conducted by an AOC holder issued a certificate under Part 9 of these regulations, which will have approved CAT II or CAT III operations included as a part of its OM. IS: 8.8.1.9 provides specific Category II and III Manual requirements.

(d) Specific CAT II and CAT III manual requirements are prescribed in IS 8.8.1.9.

Note 1: CAT II approval is required to prior to obtaining CAT III approval.

Note 2: ICAO Doc 9365, Manual of All-Weather Operations, provides additional guidance.

8.8.1.10 EXEMPTION FROM CERTAIN CATEGORY II OPERATIONS

(a) The Authority may grant an exemption from the requirements of 8.8.1.8 and 8.8.1.9 of this part for the operation of small aircraft in CAT II operations if the operator can demonstrate to the Authority that the proposed operation can be safely conducted.

Note: Such authorisation does not permit operation of the aircraft carrying persons or property for compensation or hire.

8.8.1.11 DIVERSION DECISION—ENGINE INOPERATIVE

(a) Except as provided in paragraph 8.8.1.11(b) of this subsection, the PIC shall land the aircraft at the nearest suitable aerodrome at which a safe landing can be made whenever an engine of an aircraft fails or is shut down to prevent possible damage.

(b) If not more than one engine of an aeroplane having three or more engines fails, or its rotation is stopped, the PIC may proceed to an aerodrome if the PIC decides that proceeding to that aerodrome is as safe as landing at the nearest suitable aerodrome after considering the:

(1) Nature of the malfunction and the possible mechanical difficulties that may occur if flight is continued;

(2) Altitude, mass, and usable fuel at the time of engine stoppage;

(3) Weather conditions en-route and at possible landing points;

(4) Air traffic congestion;

(5) Type of terrain; and

(6) Familiarity with the aerodrome to be used.

8.8.1.12 OPERATING NEAR OTHER AIRCRAFT—INCLUDING FORMATION FLIGHTS

(a) No person may operate an aircraft so close to another aircraft as to create a collision hazard.

(b) No person may operate an aircraft in formation flight except:

(1) By arrangement with the PIC of each aircraft in the formation, and

(2) If in controlled airspace, in accordance with conditions prescribed by the appropriate air traffic authority, which includes that:

(i) The formation operates as a single aircraft with regard to navigation and position reporting;

(ii) Separation between aircraft in the flight shall be the responsibility of the flight leader and the PICs of the other aircraft in flight;

(iii) Separation between aircraft shall include periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and break-away; and

(iv) A distance not exceeding 1 km (0.5 NM) laterally and longitudinally and 30 m (100 ft) vertically from the flight leader shall be maintained by each aircraft.

(c) No person may operate an aircraft, carrying passengers for hire, in formation flight.

8.8.1.13 RIGHT-OF-WAY RULES—EXCEPT WATER OPERATIONS

(a) GENERAL.

(1) Each pilot shall maintain vigilance so as to see and avoid other aircraft

(2) When a rule of this subsection gives another aircraft the right-of-way, the pilot shall give way to that aircraft and may not pass over, under, or ahead of it unless passing well clear and taking into account the effect of aircraft wake turbulence.

(3) Each pilot who has the right-of-way shall maintain his or her heading and speed but is still responsible for taking such action, including collision-avoidance manoeuvres based on resolution advisories provided by ACAS equipment, as will best avert collision.

(b) IN DISTRESS. An aircraft in distress has the right-of-way over all other air traffic.

(c) CONVERGING.

(1) When aircraft of the same category are converging at approximately the same altitude (except head-on, or approximately so), the aircraft to the other's right has the right-of-way.

(2) If the converging aircraft are of different categories:

(i) A balloon has the right-of-way over any other category of aircraft;

(ii) A glider has the right-of-way over an airship, and power driven heavier than air aircraft; and

(iii) An airship has the right-of-way over a power driven heavier than air aircraft

(d) TOWING OR REFUELLING. An aircraft towing or refuelling other aircraft has the right-of- way over all other engine-driven aircraft, except aircraft in distress.

(e) APPROACHING HEAD-ON. When aircraft are approaching each other head-on, or nearly so, each pilot of each aircraft shall alter course to the right.

(f) OVERTAKING. Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft, whether climbing, descending or in horizontal flight, shall alter course to the right to pass well clear.

(g) LANDING. Aircraft, while on final approach to land or while landing, have the right-of-way over other aircraft in flight or operating on the surface.

(h) MORE THAN ONE LANDING AIRCRAFT. When two or more aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the lower altitude has the right-of-way.

(i) The PIC shall not take advantage of the right of way landing rules in paragraphs 8.8.1.13(g) and (h) in this subsection to cut in front of another aircraft that is on final approach to land or to overtake that aircraft.

(j) EMERGENCY LANDING. Aircraft that are compelled to land have the right-of-way over other aircraft.

(k) TAKING OFF. Aircraft taking off have the right-of-way over aircraft taxiing on the manoeuvring area of an aerodrome.

(l) SURFACE MOVEMENT OF AIRCRAFT.

(1) APPROACHING HEAD-ON. When aircraft are approaching each other head-on, or approximately so, the pilot of each aircraft shall stop, or wherever practicable alter course to the right so as to keep well clear

(2) CONVERGING. When two aircraft are converging on a course, the pilot who has the other aircraft on his right shall give way.

(3) OVERTAKING. Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft shall keep well clear.

(m) AIRCRAFT TAXIING ON THE MANOEUVRING AREA OF AN AERODROME.

(1) The pilot of an aircraft taxiing on the manoeuvring area shall stop and hold at all runway-holding positions unless otherwise authorised by the aerodrome control tower.

(2) The pilot of an aircraft taxiing on the manoeuvring area shall stop and hold at all lighted stop bars and may proceed further when the lights are switched off.

(3) The pilot of an aircraft taxiing on the manoeuvring area of an aerodrome shall give way to aircraft:

(i) taking off or about to take-off; or

(ii) landing or in the final stages of an approach to landing.

8.8.1.14 RIGHT-OF-WAY RULES—WATER OPERATIONS

(a) GENERAL. Each person operating an aircraft on the water shall, insofar as possible, keep clear of all vessels and avoid impeding their navigation, and shall give way to any vessel or other aircraft that is given the right-of-way by any rule of this subsection.

(b) CONVERGING OR CROSSING. When aircraft, or an aircraft and a vessel, are on crossing courses, the aircraft or vessel to the other's right has the right-of-way.

(c) APPROACHING HEAD-ON. When aircraft, or an aircraft and a vessel, are approaching head-on, or approximately so, each shall alter its course to the right to keep well clear.

(d) OVERTAKING. Each aircraft or vessel that is being overtaken has the right-of-way, and the one overtaking shall alter course to keep well clear.

(e) SPECIAL CIRCUMSTANCES. When aircraft, or an aircraft and a vessel, approach so as to involve risk of collision, each aircraft or vessel shall proceed with careful regard to existing circumstances, including the limitations of the respective craft

(f) LANDING AND TAKING OFF. Aircraft landing on or taking off from the water shall keep well clear of all vessels and shall avoid impeding their navigation.

8.8.1.15 USE OF AIRCRAFT LIGHTS

(a) If an aircraft has red rotating beacon lights, or other lights installed to show that the engine is running, the pilot shall switch those lights on before starting engines and shall display those lights at all times the engines are running.

(b) No person may operate an aircraft between the period from sunset to sunrise unless:

(1) The aircraft has lighted navigation lights; and

(2) If anti-collision lights are installed, those lights are lighted.

(c) No person may park or move an aircraft between the period from sunset to sunrise in, or in a dangerous proximity to, a movement area of an aerodrome, unless the aircraft:

(1) Is clearly illuminated;

(2) Has lighted navigation lights, or

(3) Is in an area that is marked by obstruction lights, or

(4) Has lights to indicate when the engine is running.

(d) No person may anchor an aircraft unless that aircraft:

(1) Has lighted anchor lights; or

(2) Is in an area where anchor lights are not required on vessels.

(e) No person may operate an aircraft on water during the period from sunset to sunrise unless:

(1) The aircraft displays lights as required by the International Regulations for Preventing Collisions at Sea (most recent edition); or

(2) The aircraft displays lights as similar as possible in characteristics and position to those required by the International Regulations for Preventing Collisions at Sea if it is not practical to display the lights exactly as required.

(f) A pilot is permitted to switch off or reduce the intensity of any flashing lights fitted to meet the requirements of this subsection if they do or are likely to:

(1) Adversely affect the satisfactory performance of duties; or

(2) Subject an outside observer to harmful dazzle.

8.8.1.16 SIMULATED INSTRUMENT FLIGHT

(a) No person may operate an aircraft in simulated instrument flight unless:

(1) The aircraft has fully functioning dual controls,

(2) The other control seat is occupied by a safety pilot who holds at least a private pilot licence with category and class ratings appropriate to the aircraft being flown, and

(3) The safety pilot has adequate vision forward and to each side of the aircraft, or a competent observer in the aircraft adequately supplements the vision of the safety pilot.

(b) No person may engage in simulated instrument flight conditions during commercial air transport operations.

8.8.1.17 IN-FLIGHT SIMULATION OF ABNORMAL SITUATIONS

(a) No person may simulate an abnormal or emergency situation during commercial air transport operations.

8.8.1.18 DROPPING, SPRAYING, TOWING

(a) Except under conditions prescribed by the Authority, no pilot may take the following actions:

(1) Dropping, dusting or spraying from an aircraft;

(2) Towing of aircraft or other objects; or

(3) Allowing parachute descents.

8.8.1.19 AEROBATIC FLIGHT

(a) No person may operate an aircraft in aerobatic flight:

(1) Over any city, town or settlement;

(2) Over an open air assembly of persons;

(3) Within the lateral boundaries of the surface areas of Class B, C, D or E airspace designated for an aerodrome;

(4) Below an altitude of 450 m (1500 ft) above the surface;

(5) When the flight visibility is less than 5 km (3 SM), and

(6) Unless in compliance with any other conditions prescribed by the Authority.

(b) No person may operate an aircraft in manoeuvres exceeding a bank of 60 degrees or pitch of 30 degrees from level flight attitude unless all occupants of the aircraft are wearing parachutes packed by a qualified parachute rigger, licensed in accordance with Part 2 of these regulations, in the preceding 12 calendar months.

8.8.1.20 FLIGHT TEST AREAS

(a) No person may flight-test an aircraft except over open water, or sparsely populated areas having light air traffic.

8.8.1.21 PROHIBITED AREAS AND RESTRICTED AREAS

(a) No person may operate an aircraft in a prohibited area, or in restricted areas, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established.

8.8.1.22 OPERATIONS IN MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS OR REDUCED VERTICAL SEPARATION MINIMA AIRSPACE

(a) No person may operate a civil aircraft of Curaçao registry in the North Atlantic airspace designated as MNPS airspace or in airspace designated as RVSM without a written authorisation issued by the Authority.

(b) No person may operate an aircraft in MNPS or RVSM airspace, except in accordance with the conditions of the procedures and restrictions required for this airspace.

Note: Part 7 contains requirements regarding navigation equipment for operations in MNPS and RVSM airspace.

(c) No person may operate an aircraft in airspace where a Regional Air Navigation Agreement, MNPS, or RVSM airspace has been prescribed, except in accordance with:

(1) The conditions of the procedures and restrictions required for this airspace; and

(2) A written authorisation issued by the Authority.

(d) No person may operate a civil aircraft of Curacao registry in the North Atlantic airspace designated as NAT HLA airspace or in airspace designated as RVSM without a written authorisation issued by the Authority.

Note 1: ICAO bulletin NAT Doc 007, V.2018-2, North Atlantic Airspace and Operations Manual, has re-designated the North Atlantic MNPS airspace to the NAT HLA. ICAO Regional Air Navigation Agreements may be consulted for other specific airspace areas.

Note 2: ICAO Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive, provides additional guidance.

Note 3: Part 7 of these regulations contains requirements regarding navigation equipment for operations in MNPS and RVSM airspace.

8.8.1.23 OPERATIONS ON OR IN THE VICINITY OF A CONTROLLED OR AN UNCONTROLLED AERODROME

(a) When approaching to land at an aerodrome, each pilot of:

(1) An aeroplane shall make all turns of that aeroplane to the left; or to the right, if appropriately indicated by the Authorities having jurisdiction over that aerodrome; and

(2) A helicopter shall avoid the flow of aeroplanes.

(b) When departing an aerodrome, each pilot of an aircraft shall comply with any traffic patterns established by the authorities having jurisdiction over that aerodrome.

(c) Each pilot of an aircraft shall land and take-off into the wind unless safety, the runway configurations, or traffic considerations determine that a different direction is preferable.

(d) Each pilot operating an aircraft either on or in the vicinity of an aerodrome shall:

(1) Observe other aerodrome traffic for the purpose of avoiding collision; and

(2) Conform with or avoid the pattern of traffic formed by other aircraft in operation.

(e) Each pilot of an aircraft when operating to, from, or through an aerodrome having an operational control tower shall also comply with the requirements at Subsection 8.8.2.8 of this part.

(f) Aerodrome traffic management at controlled and uncontrolled aerodromes may be supplemented or directed by the use of universal aviation signals, such as the light displays and visual markings prescribed in IS 8.8.2.11.

8.8.1.24 AERODROME TRAFFIC PATTERN ALTITUDES—TURBOJET, TURBOFAN, OR LARGE AIRCRAFT

(a) When arriving at an aerodrome, the PIC of a turbojet, turbofan, or large aircraft shall enter the traffic pattern at least 450 m (1500 ft) AGL until further descent is required for landing.

(b) When departing an aerodrome, the PIC of a turbojet, turbofan, or large aircraft shall climb to 450 m (1500 ft) AGL as rapidly as practicable.

8.8.1.25 COMPLIANCE WITH VISUAL AND ELECTRONIC GLIDE SLOPES

(a) The PIC of an aeroplane approaching to land on a runway served by a visual approach slope indicator shall maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.

(b) The PIC of a turbojet, turbofan, or large aeroplane approaching to land on a runway served by an ILS shall fly that aeroplane at or above the glide slope from the point of interception to the middle marker.

8.8.1.26 RESTRICTION OR SUSPENSION OF OPERATIONS: COMMERCIAL AIR TRANSPORT

(a) If a PIC or an AOC holder knows of conditions, including aerodrome and runway conditions, that are a hazard to safe operations, that person shall restrict or suspend all commercial air transport operations to such aerodromes and runways as necessary until those conditions are corrected.

8.8.1.27 CONTINUATION OF FLIGHT WHEN DESTINATION AERODROME IS TEMPORARILY RESTRICTED—COMMERCIAL AIR TRANSPORT

(a) No PIC may allow a flight to continue toward any aerodrome of intended landing where commercial air transport operations have been restricted or suspended, unless:

(1) In the opinion of the PIC, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the ETA; or

(2) There is no safer procedure.

8.8.1.28 INTERCEPTION OF CIVIL AIRCRAFT

(a) When intercepted by a military or government aircraft, each PIC shall comply with the International Standards when interpreting and responding to visual signals and communication, as prescribed in IS: 8.8.1.28.

(b) No pilot may conduct an international flight unless the procedures and signals relating to interception of aircraft, as prescribed in IS: 8.8.1.28, are readily available on the flight deck.

8.8.1.29 NOISE ABATEMENT PROCEDURES

(a) Each AOC holder shall operate its aircraft in accordance with the noise abatement procedures approved by the Authority.

(b) Unless otherwise directed by the Authority, the noise abatement procedures specified by an AOC holder for any one aeroplane type shall be the same for all aerodromes.

Note: A single procedure may not satisfy requirements at some aerodromes.

8.8.1.30 SINGLE PILOT OPERATIONS - AEROPLANE

(a) An aeroplane shall not be operated under IFR or at night by a single pilot unless approved by the State of the Operator.

(b) An aeroplane shall not be operated under IFR or at night by a single pilot unless;

(1) The Aircraft Flight Manual does not require a flight crew of more than one;

(2) the aeroplane is propeller driven and turbine powered and complies with Subsection 8.7.2.2 (e)(1) of this part;

(3) the maximum approved passenger seating configuration is not more than nine, or the aeroplane is propeller driven and turbine powered and complies with Subsection 8.7.2.2(e)(2) and the maximum approved passenger seating configuration is more than nine;

(4) the maximum certificated take-off mass does not exceed 5,700 kg (12,566 lb);

(5) the aeroplane is equipped as described in paragraphs 7.2.1.4(c), (d), and (e) of these regulations;

(6) the PIC has satisfied the requirements of experience, training, checking, and recency described in 8.10.1.41 of this part.

(c) Notwithstanding paragraphs 8.8.1.30(b)(2) and (3) of this subsection, the aeroplane shall be operated in compliance with paragraph 8.7.2.2(a) of this part.

(d) Any exemption for single pilot operations with more than nine passengers shall be authorised by the Authority in the operations specifications, as required by paragraph 8.7.2.2(e)(2) of this part

(e) If such operations are to be conducted outside Curaçao, Curaçao shall have an arrangement with the States where the operations will be conducted.

8.8.1.31 SINGLE ENGINE AEROPLANE OPERATIONS

(a) Except as provided in paragraphs 8.8.1.31(b) and (c) of this subsection single-engine aeroplanes, shall only be operated in conditions of weather and light, and over such routes and diversions therefrom, that permit a safe forced landing to be executed in the event of engine failure.

(b) In approving operations by single-engine turbine-powered aeroplanes, at night and/or in IMC, the State of the Operator shall ensure that the airworthiness certification of the aeroplane is appropriate and that the overall level of safety intended by the provisions of Parts 5 and 8 of these regulations is provided by;

(1) the reliability of the turbine engine;

(2) the operator's maintenance procedures, operating practices, flight dispatch procedures and crew training programmes; and

(3) equipment, and other requirements provided in accordance with 8.7.2.3 of this part and IS: 8.7.2.3

(c) All single-engine turbine-powered aeroplanes operated at night and /or in IMC shall have an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 01 January 2005 shall have an automatic trend monitoring system.

8.8.1.32 AEROPLANE OPERATING PROCEDURES FOR RATES OF CLIMB AND DESCENT

(a) Unless otherwise specified in an ATC instruction, to avoid unnecessary ACAS II resolution advisories in aircraft at or approaching adjacent altitudes or FLs, each operator shall specify procedures by which an aeroplane climbing or descending to an assigned altitude or FL, especially with an autopilot engaged, may do so at a rate less than 8 m (26 ft)/sec or 450 m (1500 ft)/min (depending on the instrumentation available throughout the last 300 m (1000 ft) of climb or descent to the assigned level when the pilot is made aware of another aircraft at or approaching an adjacent altitude or FL.

Note: Material concerning the development of these procedures is contained in ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume I, Part III, Section 3, Chapter 3.

8.8.1.33 REMOTELY PILOTED AIRCRAFT

(a) No person shall operate an RPA in a manner that would cause a hazard to persons, property or other aircraft.

(b) OPERATING RULES. A person operating an RPA shall comply with the general operating rules as listed below.

(1) A person operating an RPA, registered in Curaçao or holding an operator certificate from Curaçao, and its RPAS,

(i) Shall not operate in Curaçao without appropriate authorisation from the Authority,

(ii) Shall not engage in international air navigation without appropriate authorisation from the State from which the take-off of the RPA is made.

(iii) Shall not operate across the territory of another State, without special authorisation issued by each State in which the flight is to operate, which shall be obtained prior to

take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned.

Note: This authorisation may be in the form of agreements between the States involved.

(iv) Shall not operate over the high seas without prior coordination with the appropriate ATS authority, which shall be obtained prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned.

(v) Shall operate in accordance with conditions specified by the State of Registry, the State of the Operator if different from the State of Registry, and the State(s) in which the flight is to operate; and

(vi) Shall ensure that the RPAS meets the performance and equipment carriage requirements for the specific airspace in which the flight is to operate.

(2) Once authorization has been received from the Authority, the operator:

(i) Shall file a flight plan prior to operation of an RPA.

(ii) Shall notify the Authority and ATC immediately in the event of a flight cancellation, and

(iii) Shall, in the case of changes to the proposed flight, submit such changes to the Authority for consideration.

(c) CERTIFICATES AND LICENCES. No person may operate an RPA, registered in Curaçao or holding an operator certificate from Curaçao unless the RPA, the RPAS and the RP have obtained the proper approvals of the Authority, as listed below.

(1) An RPAS shall be approved, taking into account the interdependencies of the components, in accordance with Part 5 of these regulations, including:

(i) A certificate of airworthiness for the RPA, and

(ii) The associated RPAS components specified in the type design certificate and maintained in accordance with Curacao regulations.

(2) An operator shall have an RPAS operator certificate issued in accordance with Curacao regulations.

(3) RPs shall be licensed or shall have their licences rendered valid in accordance with Part 2 of these regulations.

Note 1: ICAO Assembly Resolution A37-15 Appendix G resolves that pending the coming into force of International Standards respecting particular categories, classes, or types of aircraft, certificates issued or rendered valid, under national regulations, by the Contracting State in which the aircraft is registered shall be recognised by other Contracting States for the purposes of flight over their territories, including landings and take-offs.

Note 2: Certification and licensing Standards are not yet developed by ICAO. Thus, in the meantime, any certification and licensing need not be automatically deemed to comply with the SARPs of the related ICAO Annexes, including Annexes 1, 6, and 8, until such time as the related RPAS SARPs are developed.

Note 3: Notwithstanding ICAO Assembly Resolution A37-15, Article 8 of the Chicago Convention assures each Contracting State of the absolute sovereignty over the authorisation for RPA operations over its territory.

(d) REQUEST FOR AUTHORISATION.

(1) The request for authorisation referred to paragraph 8.8.1.33(b) of this subsection shall be made by providing the required information in the application contained in IS 8.8.1.33; and

(2) A request for authorization to operate an RPA in Curaçao shall be made by following the in 10.2.1.3 of these regulations and providing the required information in the application contained in IS 10.2.1.3.

8.8.1.34 UNMANNED FREE BALLOONS

(a) No person shall operate an unmanned free balloon in a manner that would cause a hazard to persons, property, or other aircraft.

(b) CLASSIFICATION. Unmanned free balloons shall be classified as:

(1) LIGHT. An unmanned free balloon that carries a payload of one or more packages with a combined mass of less than 4 kg (9 lb), unless qualifying as a heavy balloon below;

(2) MEDIUM. An unmanned free balloon that carries a payload of two or more packages with a combined mass of 4 kg (9 lb) or more, but less than 6 kg (13 lb), unless qualifying as a heavy balloon; or

(3) HEAVY. An unmanned free balloon that carries a payload that:

(i) Has a combined mass of 6 kg (13 lb) or more; or

(ii) Includes a package of 3 kg (6 lb) or more; or

(iii) Includes a package of 2 kg (4 lb) or more with an area density of more than 13 g (28 lb) per square centimetre; or

(iv) Uses a rope or other device for suspension of the payload that requires an impact force of 230 N or more to separate the suspended payload from the balloon.

Note 1: The area density referred to in paragraph 8.8.1.34(b)(3)(iii) of this subsection is determined by dividing the total mass in grams of the payload package by the area in square centimetres of its smallest surface.

Note 2: The impact force of 230 N referred to in paragraphs 8.8.1.34(b)(3)(iv) and (d)(9) of this subsection is a unit of measure of force equivalent to a breaking strain of greater than 50 lb.

(c) OPERATING RULES. No person shall operate an unmanned free balloon:

(1) Unless the balloon has received appropriate authorisation from Curacao;

(2) Across the territory of another State without appropriate authorisation from the other State concerned prior to the launching of the balloon;

(3) Except in accordance with the conditions specified by the State of Registry and the State(s) to be overflown;

(4) In such a manner that impact of the balloon, or any part thereof, including its payload, with the surface of the earth, creates a hazard to persons or property not associated with the operation; and

(5) Over the high seas without prior coordination with the appropriate ATS authority.

(d) OPERATING LIMITATIONS AND EQUIPMENT REQUIREMENTS. No person shall operate an unmanned free balloon:

(1) Without authorisation from the appropriate ATS authority;

(2) At or through any level below 18 000 m (60 000 ft) pressure altitude at which:

(i) There are clouds or obscuring phenomena of more than 4 oktas coverage; or

(ii) The horizontal visibility is less than 8 km (5 SM);

(3) By releasing it in a manner that will cause it to fly lower than 300 m (1 000 ft) over the congested areas of cities, towns, or settlements or an open-air assembly of persons not associated with the operation;

(4) Unless it is equipped with at least two payload flight-termination devices or systems, whether automatic or operated by telecommand, that operate independently of each other;

(5) That is polyethylene zero-pressure, unless is it equipped with at least two methods, systems, devices, or combinations thereof, that function independently of each other for terminating the flight of the balloon envelope;

(6) Unless the balloon envelope is equipped with either a radar reflective device(s) or radar reflective material that will present an echo to surface radar operating in the 200 MHz to 2 700 MHz frequency range, and/or the balloon is equipped with such other devices as will permit continuous tracking by the operator beyond the range of ground-based radar;

(7) In an area where ground-based SSR equipment is in use, unless it is equipped with an SSR transponder, with pressure-altitude reporting capability, that is continuously operating on an assigned code or that can be turned on, when necessary, by the tracking station;

(8) In an area where ground-based ADS-B equipment is in use, unless it is equipped with an ADS-B transmitter, with pressure-altitude reporting capability, that is continuously operated or that can be turned on when necessary by the tracking station;

(9) With a trailing antenna that requires a force of more than 230 N to break it at any point, unless the antenna has coloured pennants or streamers that are attached at not more than 15 m intervals;

(10) Below 18 000 m (60 000 ft) pressure-altitude between sunset and sunrise or such other period between sunset and sunrise (corrected to the altitude of operations) as may be prescribed by the appropriate ATS authority, unless the balloon and its attachments and payload, whether or not they become separated during the operation, are lighted; and

(11) That is equipped with a suspension device (other than a highly conspicuously coloured open parachute) more than 15 m (50 ft) long between sunrise and sunset below 18 000 m (60 000 ft) pressure-altitude unless the suspension device is coloured in alternate bands of high conspicuity colours or has coloured pennants attached.

(e) TERMINATION. The operator of an unmanned free balloon shall activate the appropriate termination device:

(1) When it becomes known that weather conditions are less than those prescribed for the operation;

(2) If a malfunction or any other reason makes further operation hazardous to air traffic or to persons or property on the surface; or

(3) Prior to unauthorised entry into the airspace over another State's territory.

(f) PRE-FLIGHT NOTIFICATION.

(1) No person shall operate a medium or heavy unmanned free balloon unless that person has made the following notifications to the appropriate ATS unit:

(i) The pre-flight notification prescribed in paragraph 8.8.1.34(f)(2) of this subsection, which shall be made at least 7 days prior to the flight; and

(ii) Any changes in the pre-launch information, which shall be made no later than:

(A) 6 hours before the estimated time of launch; or

(B) In the case of solar or cosmic disturbance investigations involving a critical time element, 30 minutes before the estimated time of launch.

(2) The pre-flight notification shall contain the following:

(i) Balloon flight identification or project code name;

(ii) Balloon classification and description;

(iii) SSR code, aircraft address, or NDB frequency, as applicable;

(iv) Operator's name and telephone number;

(v) Launch site;

(vi) Estimated time of launch (or time of commencement and completion of multiple launches);

(vii) Number of balloons to be launched and the scheduled interval between launches (if multiple launches);

(viii) Expected direction of ascent;

(ix) Cruising level(s) (pressure altitude);

(x) The estimated elapsed time to pass 18 000 m (60 000 ft) pressure altitude or to reach cruising level if at or below 18 000 m (60 000 ft), together with the estimated location; or, if the operation consists of continuous launchings, the time to be included is the estimated time at which the first and last in the series will reach the appropriate level;

(xi) The estimated date and time of termination of the flight and the planned location of the impact/recovery area:

(A) In the case of balloons carrying out flights of long duration, such that the date and time of termination of the flight and the location of impact cannot be forecast with accuracy, the term "long duration" shall be used;

(B) If there is to be more than one location of impact/recovery, each location is to be listed together with the appropriate estimated time of impact; or

(C) If there is to be a series of continuous impacts, the time to be included is the estimated time of the first and the last in the series.

(g) NOTIFICATION OF LAUNCH. The operator of a medium or heavy unmanned free balloon shall, immediately after launch, notify the appropriate ATS unit of the following:

(1) Balloon flight identification;

(2) Launch site;

(3) Actual time of launch;

(4) Estimated time at which 18 000 m (60 000 ft) pressure altitude will be passed, or the estimated time at which the cruising level will be reached if at or below 18 000 m (60 000 ft), and the estimated location; and

(5) Any changes to the information previously notified in the pre-flight notification information.

(h) NOTIFICATION OF CANCELLATION. The operator shall notify the ATS unit immediately of a cancellation of the launch of a medium or heavy unmanned free balloon for which a pre-flight plan has been filed.

(i) POSITION RECORDING AND REPORTS.

(1) The operator of a heavy unmanned free balloon shall monitor the flight path of the balloon and shall forward reports of the balloon's position to the ATS unit as follows:

(i) For operations at or below 18 000 m (60 000 ft) – every 2 hours;

(ii) For operations above 18 000 m (60 000 ft) – every 24 hours; or

(iii) Immediately, if the tracking of the balloon has been lost, providing:

(A) The balloon's last known position; and

(B) The re-establishment of tracking of the balloon.

(2) One hour before the beginning of the planned descent of a heavy unmanned free balloon, the operator of the balloon shall forward to the ATS unit the following information regarding the balloon:

(i) The current geographical position;

(ii) The current level (pressure altitude);

(iii) The forecast time of penetration of 18 000 m (60 000 ft) pressure altitude, if applicable; and

(iv) The forecast time and location of ground impact.

(3) The operator of a medium or heavy unmanned free balloon shall notify the appropriate ATS unit when the operation is completed.

8.8.2 CONTROL OF AIR TRAFFIC

8.8.2.1 AIR TRAFFIC CONTROL, CLEARANCES

(a) Each PIC shall obtain an ATC clearance before operating a controlled flight, or a portion of a flight as a controlled flight.

(b) Each PIC shall request an ATC clearance, including potential re-clearance in-flight, through the submission of a flight plan to an ATC facility.

(c) Whenever a PIC has requested a clearance involving priority, that PIC shall submit a report explaining the necessity for such priority, if requested by the appropriate ATC facility.

(d) No person operating an aircraft on a controlled aerodrome may taxi on the manoeuvring area or any runway without clearance from the aerodrome control tower.

8.8.2.2 ADHERENCE TO CURRENT AIR TRAFFIC CONTROL CLEARANCES

(a) When an ATC clearance has been obtained, no PIC may deviate from the clearance within the tolerances defined in 8.8.2.5 of this part, except in an emergency, unless he or she obtains an amended clearance.

Note 1: A flight plan may cover only part of a flight, as necessary, to describe that portion of the flight or those manoeuvres which are subject to ATC. A clearance may cover only part of a current flight plan, as indicated in a clearance limit or by reference to specific manoeuvres such as taxiing, landing or taking off.

Note 2: § 8.8.2.2(a) of this subsection does not prohibit a pilot from cancelling an IFR clearance when operating in VMC conditions or cancelling a controlled flight clearance when operating in airspace that does not require controlled flight.

(b) When operating in airspace requiring controlled flight, no PIC may operate contrary to ATC instructions, except in an emergency.

(c) Each PIC who deviates from an ATC clearance or instructions in an emergency, shall notify ATC of that deviation as soon as possible.

8.8.2.3 COMMUNICATIONS

(a) Each person operating an aircraft on a controlled flight shall maintain a continuous air-ground voice communication watch on the appropriate communication channel of, and shall establish two-way communication as required with, the appropriate ATC facility.

(b) Each person operating an aircraft on a controlled flight shall, except when landing at a controlled aerodrome, advise the appropriate ATC facility as soon as it ceases to be subject to ATC service.

Note 1: More specific procedures may be prescribed by the appropriate ATC authority in respect of aircraft forming part of aerodrome traffic at a controlled aerodrome.

Note 2: Automatic signalling devices may be used to satisfy the requirement to maintain a continuous air-ground voice communication watch, if authorised by the Authority.

8.8.2.4 ROUTE TO BE FLOWN

(a) Unless otherwise authorised or directed by the appropriate ATC facility, the PIC of a controlled flight shall, in so far as practicable:

(1) When on an established ATC route, operate along the defined centre line of that route; or

(2) When on any other route, operate directly between the navigation facilities and/or points defining that route.

(b) The PIC of a controlled flight operating along an ATC route defined by reference to VORs shall change over for primary navigation guidance from the facility behind the aircraft to that ahead of it at, or as close as operationally feasible to, the change-over point, where established.

Note: These requirements do not prohibit manoeuvring the aircraft to pass well clear of other air traffic or the manoeuvring of the aircraft in VFR conditions to clear the intended flight path both before and during climb or descent.

8.8.2.5 DEVIATIONS FROM CURRENT FLIGHT PLAN

(a) A PIC shall take the following action in the event that a controlled flight inadvertently deviates from its current flight plan:

(1) DEVIATION FROM TRACK. If the aircraft is off track, the PIC shall adjust the heading of the aircraft to regain track as soon as practicable.

(2) DEVIATION FROM ATC-ASSIGNED MACH NUMBER/INDICATED AIRSPEED. The appropriate ATS unit shall be informed immediately.

(3) DEVIATION FROM MACH NUMBER/TRUE AIRSPEED. Each PIC shall inform the appropriate ATC facility if the average Mach number/true airspeed at cruising level between reporting points varies from that given in the flight plan, or is expected to vary by plus or minus Mach 0.02 or more or plus or minus 19 km/h (10 kt) true airspeed or more from the current flight plan.

(4) CHANGE IN TIME ESTIMATE. Each PIC shall notify the appropriate ATC facility and give a revised estimated time as soon as possible if the time estimate for a reporting point, flight information region boundary, or destination aerodrome, whichever comes first, changes in excess of 2 minutes from that previously notified to ATC, or such other period of time as is prescribed by the appropriate ATC authority or on the basis of Regional Air Navigation Agreements, except where ADS-C is activated and serviceable in airspace where provided.

(b) When ADS-C services are provided and ADS-C is activated, the ATS unit shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the ADS event contract.

8.8.2.6 AIR TRAFFIC CONTROL CLEARANCE— CHANGE REQUESTS

(a) Requests for current flight plan changes shall include the following information:

(1) CHANGE OF CRUISING LEVEL. Aircraft identification, requested new cruising level and cruising Mach number/true airspeed at this level; and revised time estimates, when applicable, at subsequent reporting points or flight information region boundaries

(2) CHANGE OF MACH NUMBER/TRUE AIRSPEED. Aircraft identification; requested Mach number/true airspeed.

(3) CHANGE OF ROUTE.

(i) DESTINATION UNCHANGED. Aircraft identification, flight rules; description of new route of flight including related flight plan data beginning with the position from which the requested change of route is to commence; revised time estimates, and any other pertinent information.

(ii) DESTINATION CHANGE. Aircraft identification; flight rules; description of revised route of flight to revised destination aerodrome including related flight plan data, beginning with the position from which the requested change of route is to commence; revised time estimates; alternate aerodrome(s); and any other pertinent information.

8.8.2.7 POSITION REPORTS

(a) Each pilot of a controlled flight shall report to the appropriate ATC facility, as soon as possible, the time and level of passing each designated compulsory reporting point, together with any other required information, unless exempted from this requirement by the appropriate ATC Authority.

(b) Each pilot of a controlled flight shall make position reports in relation to additional points or intervals when requested by the appropriate ATC facility.

(c) When operating via data link communications providing position information to the appropriate ATS unit, each pilot of a controlled flight shall only provide voice position reports when requested by the appropriate ATC facility.

8.8.2.8 OPERATIONS ON OR IN THE VICINITY OF A CONTROLLED AERODROME

(a) No person may operate an aircraft to, from, through, or on an aerodrome having an operational control tower unless two-way communications are maintained between that aircraft and the control tower.

(b) On arrival, each PIC shall establish communications required by paragraph 8.8.2.8(a) of this subsection prior to 7.4 km (4 NM) from (a) prior to 18,5 km (10 nautical miles) from the Aerodrome Traffic Zone when operating from the surface up to and including 760 m (2500 ft).

(c) On departure, each PIC shall establish communications with the control tower before taxi.

(d) Take-off, landing, taxi clearance. No person may, at any aerodrome with an operating control tower, operate an aircraft on a runway or taxiway or take-off or land an aircraft, unless an appropriate clearance has been received by ATC.

Note: A clearance to "taxi to" the take-off runway is not a clearance to cross or taxi on to that runway. It does authorise the PIC to cross other runways during the taxi to the assigned runway. A clearance to "taxi to" any other point on the aerodrome is a clearance to cross all runways that intersect the taxi route to the assigned point.

(e) COMMUNICATIONS FAILURE. If the radio fails or two-way communication is lost, a PIC may continue a VFR flight operation and land if:

(1) The weather conditions are at or above basic VFR minimums; and

(2) Clearance to land from the ATC tower is given in accordance with the universal light signals and acknowledged by the PIC as prescribed in IS 8.8.2.11(e) and (f) for light signals and acknowledgement.

Note: During IFR operations, the two-way communications failure procedures prescribed in 8.8.4.19 of this part will apply.

8.8.2.9 UNLAWFUL INTERFERENCE

(a) A PIC shall, when and if possible, notify the appropriate ATC facility when an aircraft is being subjected to unlawful interference, including:

(1) Any significant circumstances associated with the unlawful interference, and

(2) Any deviation from the current flight plan necessitated by the circumstances.

(b) When an aircraft is subjected to unlawful interference, the PIC shall attempt to land as soon as practicable at:

(1) The nearest suitable aerodrome, or

(2) A dedicated aerodrome assigned by the appropriate Authority unless considerations aboard the aircraft dictate otherwise.

8.8.2.10 TIME CHECKS

(a) Each PIC shall use UTC, expressed in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight, in flight operations.

(b) Each PIC shall obtain a time check before operating a controlled flight and at such other times during the flight as may be necessary.

(c) Whenever time is used in the application of data link communications, it shall be accurate to within 1 second of UTC.

Note: The time check in paragraph 8.8.2.10(b) of this subsection is normally obtained from an ATS unit unless other arrangements have been made by the operator or by the appropriate ATC authority.

8.8.2.11 UNIVERSAL AVIATION SIGNALS

(a) Upon observing or receiving any of the designated universal aviation signals prescribed in IS: 8.8.2.11 and IS: 8.8.1.28, each person operating an aircraft shall take such action as may be required by the interpretation of the signal.

(b) The universal aviation signals shall have only the meaning indicated in the IS

(c) Each person using universal signals in the movement of aircraft shall only use them only for the purpose indicated.

(d) No person may use signals likely to cause confusion with universal aviation signals.

8.8.2.12 SIGNALMAN

(a) No person shall guide an aircraft unless trained, qualified and approved by the Authority to carry out the functions of a signalman.

(b) The signalman shall wear a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation.

(c) The signalman shall use the marshalling equipment prescribed in paragraph 8.8.1.1(c) of this part.

8.8.3 VISUAL FLIGHT RULES

8.8.3.1 VISUAL METEOROLOGICAL CONDITIONS

(a) No person may operate an aircraft under VFR when the flight visibility is less than, or at a distance from the clouds that is less than that prescribed, or the corresponding altitude and class of airspace in the following table

Airspace and VMC Minimums*			
Airspace Class	**A***B C D E**	**F G**	
		Above 900 m (3,000 ft) AMSL or above 300 m (1,000 ft) above terrain, whichever is the higher	At and below 900 m (3,000 ft) AMSL or 300 m (1,000 ft) above terrain, whichever is the higher
Distance from cloud	1500 m (4,920 ft) horizontally 300 m (1,000 ft) vertically		Clear of cloud and in sight of the surface
Flight visibility	8 km (5 SM) at and above 3,050 m (10,000 ft) AMSL 5 km (3 SM) below 3,050 m (10,000 ft) AMSL		5 km (3 SM) **
*When the height of the transition altitude is lower than 3,050 m (10,000 ft) AMSL, FL100 shall be used in lieu of 10,000 ft.			
** When so prescribed by the appropriate ATC authority lower flight visibilities to 1,500 m (4,920 ft) may be permitted for flights operating: at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or in circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels. Helicopters may be permitted to operate in less than 1,500 m (4,920 ft) flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.			
***The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace. ICAO Annex 2: 3.9; 4.1 FR 91.155(a)			

8.8.3.2 VISUAL FLIGHT RULES WEATHER MINIMUMS FOR TAKE-OFF AND LANDING

(a) No person may land or take-off an aircraft under VFR from an aerodrome located within a control zone, or enter the aerodrome traffic zone or traffic pattern airspace unless the:

(1) Reported ceiling is at least 450 m (1,500 ft); and

(2) Reported ground visibility is at least 5 km (3 SM); or

(3) Except when a clearance is obtained from ATC.

(b) No person may land or take-off an aircraft or enter the traffic pattern under VFR from an aerodrome located outside a control zone, unless VMC conditions are at or above those indicated in Subsection 8.8.3.1 of this part.

(c) The only exception to the required weather minimums of this subsection is during a special VFR operation.

8.8.3.3 SPECIAL VISUAL FLIGHT RULES OPERATIONS

(a) No person may conduct a special VFR flight operation to enter the traffic pattern, land or take-off an aircraft under special VFR from an aerodrome located in Class B, Class C, Class D or Class E airspace unless:

(1) Authorised by an ATC clearance;

(2) The aircraft remains clear of clouds; and

(3) The flight visibility is at least 1.5 km (1 SM).

(b) No person may conduct a special VFR flight operation in an aircraft between sunset and sunrise unless:

(1) The PIC is current and qualified for IFR operations; and

(2) The aircraft is qualified to be operated for IFR flight.

8.8.3.4 VISUAL FLIGHT RULES CRUISING ALTITUDES

(a) Each person operating an aircraft in level cruising flight under VFR at altitudes above 900 m (3,000 ft) from the ground or water, shall maintain an FL appropriate to the track as specified in the tables of cruising levels prescribed in IS: 8.8.3.4.

(b) Paragraph 8.8.3.4(a) of this subsection does not apply when otherwise authorised by ATC, when operating in a holding pattern, or during manoeuvring in turns.

8.8.3.5 AIR TRAFFIC CONTROL CLEARANCES FOR VISUAL FLIGHT RULES FLIGHTS

(a) Each pilot of a VFR flight shall obtain and comply with ATC clearances and shall maintain an air-ground voice communication watch before and during operations:

(1) Within Class B, Class C, and Class D airspace;

(2) As part of aerodrome traffic at controlled aerodromes; and

(3) Under special VFR.

8.8.3.6 VISUAL FLIGHT RULES FLIGHTS REQUIRING AIR TRAFFIC CONTROL AUTHORISATION

(a) Unless authorised by the appropriate ATC Authority, no pilot may operate in VFR flight:

(1) Above FL 200; or

(2) At transonic and supersonic speeds.

(b) ATC authorisation for VFR flights may not be granted in areas where a VSM of 300 m (1,000 ft) is applied above FL 290.

(c) No person may operate in VFR flight between sunset and sunrise unless:

(1) Authorised by the appropriate ATC authority, and

(2) Operating in accordance with any conditions prescribed by the Authority.

8.8.3.7 WEATHER DETERIORATION BELOW VISUAL METEOROLOGICAL CONDITIONS

(a) Each pilot of a VFR flight operated as a controlled flight shall, when he or she finds it is not practical or possible to maintain flight in VMC in accordance with the ATC flight plan:

(1) Request an amended clearance enabling the aircraft to continue in VMC to its destination or to an alternative aerodrome, or to leave the airspace within which an ATC clearance is required;

(2) If no clearance can be obtained, continue to operate in VMC and notify the appropriate ATC facility of the action being taken either to leave the airspace concerned or to land at the nearest suitable aerodrome;

(3) Operating within a control zone, request authorisation to operate as a special VFR flight; or

(4) Request clearance to operate in IFR, if currently rated for IFR operations.

8.8.3.8 CHANGING FROM VISUAL FLIGHT RULES TO INSTRUMENT FLIGHT RULES

(a) Each pilot operating in VFR who wishes to change to IFR shall:

(1) If a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan; or

(2) Submit a flight plan to the appropriate ATC facility and obtain a clearance before proceeding IFR when in controlled airspace.

8.8.3.9 TWO-WAY RADIO COMMUNICATION FAILURE IN VISUAL FLIGHT RULES

(a) COMMUNICATIONS FAILURE – GENERAL.

(1) In the event of a communications failure, the pilot shall attempt to establish communications with the appropriate air ATC using all other available means; and

(2) In addition, the pilot shall, when forming part of the aerodrome traffic at a controlled aerodrome, keep a watch for such instructions as may be issued by visual signals.

(b) If communication failure occurs in VMC while under ATC control, or if VMC conditions are encountered after the failure, each pilot shall:

(1) Continue the flight under VMC;

(2) Land at the nearest suitable aerodrome; and

(3) Report arrival to the appropriate ATC services unit by the most expeditious means possible.

8.8.4 INSTRUMENT FLIGHT RULES

8.8.4.1 INSTRUMENT FLIGHT PROCEDURES

(a) All aircraft operated in accordance with instrument flight procedures shall comply with the IFR and the aerodrome IAPs approved by the State where the operation will take place.

Note: Information for pilots on flight procedure parameters and operational procedures is contained in ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume I. Criteria for the construction of visual and instrument flight procedures are contained in ICAO DOC 8168, PANS-OPS, Volume II. Obstacle clearance criteria and procedures used in certain States may differ from PANS-OPS, and knowledge of these differences is important for safety reasons.

8.8.4.2 INSTRUMENT FLIGHT RULES IN CONTROLLED AIRSPACE

(a) No person may operate an aircraft in controlled airspace under IFR unless that person has:

(1) Filed an IFR flight plan; and

(2) Received an appropriate ATC clearance.

8.8.4.3 INSTRUMENT FLIGHT RULES FLIGHTS OUTSIDE CONTROLLED AIRSPACE

(a) Each PIC of an IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the appropriate ATC authority shall maintain an air-ground voice communication watch on the appropriate communication channel and shall establish two-way communication, as necessary, with the ATC facility providing flight information service.

(b) Each PIC of an IFR flight operating outside controlled airspace and required by the appropriate ATC authority to submit a flight plan, maintain an air-ground voice communication watch on the appropriate communication channel, and establish two-way communication, as necessary, with the ATC facility providing flight information service, shall report position as specified for controlled flights.

8.8.4.4 INSTRUMENT FLIGHT RULES TAKE-OFF MINIMUMS FOR COMMERCIAL AIR TRANSPORT

(a) Unless otherwise authorised by the Authority, no pilot operating an aircraft in commercial air transport operations may accept a clearance to take-off from a civil aerodrome under IFR unless weather conditions are at or above:

(1) For aircraft, other than helicopters, having two engines or less—1,500 m (1 SM) visibility.

(2) For aircraft having more than two engines—800 m (1/2 SM) visibility.

(3) For helicopters—800 m (1/2 SM) visibility

8.8.4.5 MINIMUM ALTITUDES FOR INSTRUMENT FLIGHT RULES OPERATIONS

(a) Operation of aircraft at minimum altitudes. Except when necessary for take-off or landing, no person may operate an aircraft under IFR below:

(1) The applicable minimum altitudes prescribed by the authorities having jurisdiction over the airspace being overflown; or

(2) If no applicable minimum altitude is prescribed by the authorities:

(i) Over high terrain or in mountainous areas, at a level which is at least 600 m (2,000 ft) above the highest obstacle located within 8 km (5 SM) of the estimated position of the aircraft; and

(ii) Elsewhere than as specified in paragraph (i), at a level which is at least 300 m (1,000 ft) above the highest obstacle located within 8 km (5 SM) of the estimated position of the aircraft.

(3) If an MEA and a MOCA are prescribed for a particular route or route segment, a person may operate an aircraft below the MEA down to, but not below, the MOCA, when within 40.7 km (22 NM) of the VOR concerned.

(b) Climb for obstacle clearance.

(1) If unable to communicate with ATC, each pilot shall climb to a higher minimum IFR altitude immediately after passing the point beyond which that minimum altitude applies

(2) If ground obstructions intervene, each pilot shall climb to a point beyond which that higher minimum altitude applies, at or above the applicable Minimum Crossing Altitude.

8.8.4.6 MINIMUM ALTITUDES FOR USE OF AN AUTOPILOT

(a) For en-route operations, no person may use an autopilot at an altitude above the terrain that is less than 152 m (500ft).

Note: If the maximum altitude loss specified in the Aircraft Flight Manual for a malfunction under cruise conditions when multiplied by two is more than 152 m (500 ft), then it becomes the controlling minimum altitude for use of the autopilot.

(b) For instrument approach operations, no person may use an autopilot at an altitude above the terrain that is less than 15 m (50 ft) below the MDA or DH.

Note: If the maximum altitude loss specified in the AFM for a malfunction under approach conditions when multiplied by two is more than 15 m (50 ft), then it becomes the controlling minimum altitude for use of the autopilot.

(c) For CAT III approaches, the Authority may approve the use of a flight control guidance system with automatic capability to touchdown.

8.8.4.7 INSTRUMENT FLIGHT RULES CRUISING ALTITUDE OR FLIGHT LEVEL IN CONTROLLED AIRSPACE

(a) Each person operating an aircraft under IFR in level cruising flight in controlled airspace shall maintain the altitude or FL assigned to that aircraft by ATC.

(b) Each person operating an aircraft in level cruising flight under IFR, or if authorised to employ cruise climb techniques between two levels, shall maintain a FL appropriate to the track as specified in the tables of cruising levels prescribed in IS: 8.8.3.4 or according to a modified table of cruising levels when so prescribed in accordance with IS: 8.8.3.4 for flight above FL 410.

(c) Paragraph (c) above does not apply when otherwise authorised by ATC or specified by the appropriate ATC authority in AIPs.

Note: The requirements for VFR cruising altitudes are in Subsection 8.8.3.4.

8.8.4.8 INSTRUMENT FLIGHT RULES CRUISING ALTITUDE OR FLIGHT LEVEL IN UNCONTROLLED AIRSPACE

(a) Each person operating an aircraft in level cruising flight under IFR, outside of controlled airspace, shall maintain an FL appropriate to the track as specified in the table of cruising levels prescribed in IS: 8.8.3.4 or according to a modified table of cruising levels when so prescribed in accordance with IS: 8.8.3.4 for flight above FL 410.

(b) A person may deviate from the cruising altitudes specified in paragraph (a) only when:

(1) Authorised by ATC for flight at or below 900 m (3,000 ft) above MSL; or

(2) When otherwise authorised by ATC.

8.8.4.9 INSTRUMENT FLIGHT RULES RADIO COMMUNICATIONS

(a) Each PIC of an aircraft operated under IFR in controlled airspace shall have a continuous watch maintained on the appropriate frequency and shall report by radio as soon as possible:

(1) The time and altitude of passing each designated reporting point, or the reporting points specified by ATC, except that while the aircraft is under radar control, only the passing of those reporting points specifically requested by ATC need be reported;

(2) Any unforecasted weather conditions encountered; and

(3) Any other information relating to the safety of flight, such as hazardous weather or abnormal radio station indications.

8.8.4.10 OPERATION UNDER INSTRUMENT FLIGHT RULES IN CONTROLLED AIRSPACE—MALFUNCTION REPORTS

(a) The PIC of each aircraft operated in controlled airspace under IFR shall report as soon as practical to ATC any malfunctions of navigational, approach, or communication equipment occurring in flight.

(b) In each report specified in paragraph (a), the PIC shall include the:

(1) Aircraft identification;

(2) Equipment affected;

(3) Degree to which the capability of the pilot to operate under IFR in the ATC system is impaired; and

(4) Nature and extent of assistance desired from ATC.

8.8.4.11 CONTINUATION OF INSTRUMENT FLIGHT RULES FLIGHT TOWARD A DESTINATION

(a) No pilot may continue an IFR flight toward an aerodrome or heliport of intended landing, unless the latest available meteorological information indicates that the conditions at that aerodrome, or at least one destination alternate aerodrome will, at the expected time of arrival, be at or above the specified instrument approach minima.

8.8.4.12 INSTRUMENT APPROACH PROCEDURES AND INSTRUMENT FLIGHT RULES LANDING MINIMUMS

(a) No person may make an instrument approach at an aerodrome except in accordance with IFR weather minimums and IAPs established for that aerodrome as set forth by the Authority.

(b) No AOC holder may make an instrument approach at an aerodrome except as set forth in the AOC holder's operations specifications.

8.8.4.13 COMMENCING AN INSTRUMENT APPROACH—COMMERCIAL AIR TRANSPORT

(a) No pilot may continue an approach below 300 m (1,000 ft.) above the aerodrome elevation or into the FAS unless:

(1) A source approved by the Authority issues a weather report for that aerodrome; and

(2) The latest weather report for that aerodrome reports the visibility or controlling RVR to be equal to or more than the minimums prescribed for that procedure; and

(3) The given available runway surface condition information and the aeroplane performance information indicates that a safe landing can be made.

(b) If a pilot begins the FAS of an IAP and subsequently receives a weather report indicating below-minimum conditions, the pilot may continue the approach to DH or MDA.

Note 1: For the purpose of this subsection, the FAS begins at the final approach fix or facility prescribed in the IAP. When a final approach fix is not prescribed for a procedure that includes a procedure turn, the FAS begins at the point where the procedure turn is completed and the aircraft is established inbound toward the aerodrome on the final approach course within the distance prescribed in the procedure.

Note 2: Criteria for the FAS is contained in ICAO Doc 8168, PANS-OPS, Volume II.

Note 2: Controlling RVR means the reported values of one or more RVR reporting locations (touchdown, mid-point and stop-end) used to determine whether operating minima are or are not met. Where RVR is used, the controlling RVR is the touchdown RVR, unless otherwise specified by State criteria.

Note 4: The procedures used by aerodromes to assess and report runway surface conditions are contained in ICAO Doc 9981, PANS-Aerodromes, and those for using runway surface condition information on board aircraft in the Aeroplane Performance Manual ICAO Doc 10064.

Note 5: Guidance on development of aeroplane performance information is contained in ICAO Doc 10064, Aeroplane Performance Manual.

8.8.4.14 INSTRUMENT APPROACHES TO CIVIL AERODROMES

(a) Each person operating a civil aircraft shall use a standard IAP prescribed by the authorities having jurisdiction over the aerodrome, unless otherwise authorised by the Authority.

(b) Authorised DH or MDA. For the purpose of this section, when the approach procedure being used provides for and requires the use of a DH or MDA, the authorised DH or MDA is the highest of the following:

(1) The DH or MDA prescribed by the approach procedure.

(2) The DH or MDA prescribed for the PIC.

(3) The DH or MDA for which the aircraft is equipped

8.8.4.15 OPERATION BELOW DECISION HEIGHT OR MINIMUM DESCENT ALTITUDE

(a) Where a DH or MDA is applicable, no pilot may operate a civil aircraft at any aerodrome or heliport below the authorised MDA, or continue an approach below the authorised DH unless:

(1) The aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres;

(2) For commercial air transport operations, a descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;

(3) The reported flight visibility is not less than the visibility prescribed in the standard instrument approach being used or the controlling RVR is above the specified minimum; and

(4) At least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

(i) The approach light system, except that the pilot may not descend below 30 m (100 ft) above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable.

(ii) The threshold;

(iii) The threshold markings;

(iv) Threshold lights;

(v) The runway end identifier lights;

(vi) The visual approach slope indicator;

(vii) The touchdown zone or touchdown zone markings;

(viii) The touchdown zone lights;

(ix) The runway or runway markings; or

(x) The runway lights.

Note 1: Controlling RVR means the reported values of one or more RVR reporting locations (touchdown, mid-point and stop-end) used to determine whether operating minima are or are not met. Where RVR is used, the controlling RVR is the touchdown RVR, unless otherwise specified by Curaçao criteria.

Note 2: The visual references above do not apply to CAT II and CAT III operations. The required visual references under CAT II and CAT III operations are stated in the AOC holder's approved operations specifications or in a special authorisation prescribed by the Authority.

8.8.4.16 LANDING DURING INSTRUMENT METEOROLOGICAL CONDITIONS

(a) No pilot operating a civil aircraft may land that aircraft when the flight visibility is less than the visibility prescribed in the standard IAP being used.

8.8.4.17 EXECUTION OF A MISSED APPROACH PROCEDURE

(a) Each pilot operating a civil aircraft shall immediately execute an appropriate missed approach procedure when either of the following conditions exists:

(1) Whenever the required visual reference criteria is not met in the following situations:

(i) When the aircraft is being operated below MDA; or

(ii) Upon arrival at the missed approach point, including a DH where a DH is specified and its use is required, and at any time after that until touchdown.

(2) Whenever an identifiable part of the aerodrome is not distinctly visible to the pilot during a circling manoeuvre at or above MDA, unless the inability to see an identifiable part of the aerodrome results only from a normal bank of the aircraft during the circling approach.

8.8.4.18 CHANGE FROM INSTRUMENT FLIGHT RULES FLIGHT TO VISUAL FLIGHT RULES FLIGHT

(a) A pilot electing to change from IFR flight to VFR flight shall notify the appropriate ATC facility specifically that the IFR flight is cancelled and then communicate the changes to be made to his or her current flight plan.

(b) When a pilot operating under IFR encounters VMC, he or she may not cancel the IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted VMC.

8.8.4.19 TWO-WAY RADIO COMMUNICATIONS FAILURE IN INSTRUMENT FLIGHT RULES

(a) Communications Failure: General

(1) In the event of communications failure, the pilot shall attempt to establish communications with the appropriate ATC unit using all other available means.

(2) In addition, the pilot shall, when forming part of the aerodrome traffic at a controlled aerodrome, shall keep a watch for such instructions as may be issued by visual signals.

(b) If radio failure occurs in VMC while under ATC control, or if VMC conditions are encountered after the failure, each pilot shall:

(1) Continue the flight under VMC;

(2) Land at the nearest suitable aerodrome; and

(3) Report arrival to the appropriate ATC services unit by the most expeditious means possible.

(c) If two-way radio communication failure occurs in IMC, or when the pilot of an IFR flight considers it inadvisable to continue the flight in VMC, the PIC shall:

(1) unless otherwise prescribed on the basis of regional air navigation agreement, in airspace where radar is not used in the provision of ATC, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 20 minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan;

(2) in airspace where radar is used in the provision of ATC, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following:

(i) The time the last assigned level or minimum flight altitude is reached; or

(ii) The time the transponder is set to Code 7600; or

(iii) The aircraft's failure to report its position over a compulsory reporting point; whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan;

(3) when being radar vectored or having been directed by ATC to proceed offset using RNAV without a specified limit, re-join the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

(4) proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with (5) below, hold over this aid or fix until commencement of descent;

(5) commence descent from the navigation aid of fix specified in (4) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to the ETA resulting from the current flight plan;

(6) Complete a normal IAP as specified for the designated navigation aid or fix; and

(7) land, if possible, within 30 minutes after ETA specified in (5) or the last acknowledged expected approach time, whichever is later.

8.8.4.20 THRESHOLD CROSSING HEIGHT FOR 3D INSTRUMENT APPROACH OPERATIONS

(a) An operator shall establish operational procedures designed to ensure that an aeroplane being used to conduct 3D instrument approach operations crosses the threshold by a safe margin with the aeroplane in the landing configuration and attitude.

8.9 PASSENGERS AND PASSENGER HANDLING

8.9.1 ALL PASSENGER CARRYING OPERATIONS

8.9.1.1 UNACCEPTABLE CONDUCT

(a) No person on board may interfere with a crew member in the performance of his or her duties.

(b) Each passenger shall fasten his or her seat belt and keep it fastened while the seat belt sign is lighted.

(c) No person on board an aircraft shall recklessly or negligently act or omit to act in such a manner as to endanger the aircraft or persons and property therein.

(d) No person may secrete himself or herself nor secrete cargo on board an aircraft.

(e) No person may smoke while the no-smoking sign is lighted.

(f) No person may smoke in any aeroplane lavatory.

(g) No person may tamper with, disable or destroy any smoke detector installed in any aeroplane lavatory.

8.9.1.2 REFUELLING OR DEFUELLING WITH PASSENGERS ON BOARD

(a) No PIC may allow an aeroplane to be refuelled when passengers are embarking, on board or disembarking unless:

(1) The aeroplane is manned by qualified personnel ready to initiate and direct an evacuation; and

(2) Two-way communication is maintained between the qualified personnel in the aeroplane and the ground crew supervising the refuelling.

(b) HELICOPTERS. No PIC may allow a helicopter to be refuelled or defuelled, or to have oxygen replenished, when passengers are embarking or disembarking or when refuelling with aviation gasoline or wide-cut type fuel or a mixture of these types of fuel unless:

(1) The helicopter is manned by qualified personnel ready to initiate and direct an evacuation; and

(2) Two-way communication is maintained between the qualified personnel in the helicopter and the ground crew supervising the refuelling.

(c) HELICOPTERS: A PIC may allow a helicopter to be refuelled with passengers on board, rotors stopped or turning, if:

(1) The helicopter is manned by qualified personnel who have briefed passengers on actions to take if an incident occurs, ready to initiate and direct an evacuation;

(2) Two-way communication is maintained between the qualified personnel in the helicopter and the ground crew supervising the refuelling; and

(3) During an emergency shutdown procedure, the flight crew shall ensure that any personnel or passengers outside the helicopter are clear of the rotor area.

Note1: Caution needs to be exercised when using radios for this purpose due to the potential for stray currents and radio-induced voltages.

Note 2: Provisions concerning aircraft refuelling are contained in Annex 14, Volume I, and guidance on safe refuelling practices is contained in ICAO Doc 9137, Airport Services Manual, Parts 1 and 8.

Note 3: Additional precautions are required when refuelling with fuels other than aviation kerosene or when refuelling results in a mixture of aviation kerosene with other aviation turbine fuels, or when an open line is used.

8.9.1.3 PASSENGER SEATS, SAFETY BELTS, AND SHOULDER HARNESSES

(a) The PIC shall ensure that each person on-board occupies an approved seat or berth with their own individual safety belt and shoulder harness (if installed) properly secured about them during take-off and landing.

(b) Each passenger shall have his or her seatbelt securely fastened at any other time the PIC determines it is necessary for safety.

(c) A safety belt provided for the occupant of a seat may not be used during take-off and landing by more than one person who has reached his or her second birthday.

Note: When cabin crew members are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted before take-off.

8.9.1.4 PASSENGER BRIEFING

(a) The PIC shall ensure that crew members and passengers are made familiar, by means of an oral briefing or by other means, with the location and use of the following items, if appropriate:

(1) Seat belts;

(2) Emergency exits;

(3) Life jackets;

(4) Oxygen dispensing equipment if the use of oxygen is anticipated; and

(5) Other emergency equipment provided for individual use, including passenger emergency briefing cards.

(b) The PIC shall ensure that all persons on board:

(1) are aware of the locations and general manner of use of the principal emergency equipment carried for collective use.

(2) are briefed about all subjects for the specific operations conducted by a commercial air transport operation and are included in the pertinent OM, as approved by the Authority

(3) For helicopter specific - are briefed on the actions to take if an incident occurs when a helicopter is refuelled or replenished with oxygen when passengers are onboard.

Note: When cabin crew members are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted before take-off.

(c) During take-off and landing, and whenever by reason of turbulence or any emergency occurring during flight the precaution is considered necessary, cabin crew members shall ensure that all passengers aboard the aircraft fasten their seat belts so as to be secured in their seats.

(d) For helicopter off-shore operations, the PIC shall ensure that each occupant of the aircraft wear:

(1) A life jacket or integrated survival suit, when operating beyond autorotational distance from land;

(2) A survival suit, when the sea temperature is less than 10˚C or when the estimated rescue time exceeds the calculated survival time.

8.9.1.5 INFLIGHT EMERGENCY INSTRUCTION

(a) In an emergency during flight, the PIC shall ensure that all persons on board are instructed in such emergency action as may be appropriate to the circumstances.

(b) When cabin crew members are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted.

8.9.1.6 PASSENGER OXYGEN—MINIMUM SUPPLY AND USE

(a) The PIC shall ensure that breathing oxygen and masks are available to passengers in sufficient quantities for all flights at such altitudes where a lack of oxygen might harmfully affect passengers.

(b) The PIC shall ensure that the minimum supply of oxygen prescribed by the Authority is on board the aircraft.

Note: The requirements for oxygen storage and dispensing apparatus are prescribed in Part 7.

(c) The PIC shall require all passengers to use oxygen continuously at cabin pressure altitudes above 4000 m (13,000 ft).

8.9.1.7 ALCOHOL OR DRUGS

(a) No person may permit the boarding or serving of any person who appears to be intoxicated or who demonstrates, by manner or physical indications, that that person is under the influence of drugs (except a medical patient under proper care).

8.9.2 COMMERCIAL AIR TRANSPORT PASSENGER CARRYING OPERATIONS

8.9.2.1 PASSENGER COMPLIANCE WITH INSTRUCTIONS

(a) Each passenger on a commercial air transport flight shall comply with instructions given by a crew member in compliance with this section.

8.9.2.2 DENIAL OF TRANSPORTATION

(a) An AOC holder may deny transportation because a passenger:

(1) Refuses to comply with the instructions regarding exit seating restrictions prescribed by the Authority; or

(2) Has a handicap that can be physically accommodated only by an exit row seat.

8.9.2.3 CARRIAGE OF PERSONS WITHOUT COMPLIANCE WITH THESE PASSENGER-CARRYING REQUIREMENTS

(a) The passenger-carrying requirements of paragraph (b) do not apply when carrying:

(1) A crew member not required for the flight;

(2) A representative of the Authority on official duty;

(3) A person necessary to the safety or security of cargo or animals; or

(4) Any person authorised by the AOC holder's OM procedures, as approved by the Authority.

(b) No person may be carried without compliance to the passenger carrying requirements unless:

(1) There is an approved seat with an approved seat belt for that person;

(2) That seat is located so that the occupant is not in any position to interfere with the flight crew members performing their duties;

(3) There is unobstructed access from their seat to the flight deck or a regular or emergency exit;

(4) There is a means for notifying that person when smoking is prohibited and when seat belts shall be fastened; and

(5) That person has been orally briefed by a crew member on the use of emergency equipment and exits.

8.9.2.4 CABIN CREW AT DUTY STATIONS

(a) During taxi, cabin crew members shall remain at their duty stations with safety belts and shoulder harness fastened except to perform duties related to the safety of the aircraft and its occupants.

(b) During take-off and landing, cabin crew members shall be located as near as practicable to required floor level exits and shall be uniformly distributed throughout the aircraft to provide the most effective egress of passengers in event of an emergency evacuation.

(c) When passengers are on board a parked aircraft, cabin crew members (or another person qualified in emergency evacuation procedures for the aircraft) will be placed in the following manner:

(1) If only one qualified person is required, that person shall be located in accordance with the AOC holder's OM procedures.

(2) If more than one qualified person is required, those persons shall be spaced throughout the cabin to provide the most effective assistance for the evacuation in case of an emergency.

8.9.2.5 EVACUATION CAPABILITY

(a) The PIC, SCCM and other person assigned by the AOC holder shall ensure that, when passengers are on board the aircraft before movement on the surface, at least one floor-level exit provides for egress of passengers through normal or emergency means.

8.9.2.6 ARMING OF AUTOMATIC EMERGENCY EXITS

(a) No person may cause an aeroplane carrying passengers to be moved on the surface, take-off or land unless each automatically deployable emergency evacuation assisting means installed on the aircraft is ready for evacuation.

8.9.2.7 ACCESSIBILITY OF EMERGENCY EXITS AND EQUIPMENT

(a) No person may allow carry-on baggage or other items to block access to the emergency exits when the aircraft is moving on the surface, during take-off or landing, or while passengers remain on board on the ground.

8.9.2.8 STOPS WHERE PASSENGERS REMAIN ON BOARD

(a) At stops where passengers remain on board the aircraft, the PIC, the CP, or both shall ensure that:

(1) All engines are shut down;

(2) At least one floor level exit remains open to provide for the deplaning of passengers; and

(3) There is at least one person immediately available who is qualified in the emergency evacuation of the aircraft and who has been identified to the passengers on board as responsible for the passenger safety.

(b) If refuelling with passengers on board, the PIC or a designated company representative shall ensure that the AOC holder's OM procedures are followed.

8.9.2.9 PASSENGER LOADING AND UNLOADING - AOC

(a) No person shall allow passenger loading or unloading of a propeller driven aircraft unless all engines are shut down unless the aircraft is using a passenger jetway to load and unload.

8.9.2.10 CARRIAGE OF PERSONS WITH REDUCED MOBILITY

(a) No person may allow a person of reduced mobility to occupy seats where their presence could:

(1) Impede the crew in their duties;

(2) Obstruct access to emergency equipment; or

(3) Impede the emergency evacuation of the aircraft.

8.9.2.11 EXIT ROW SEATING

(a) No AOC holder shall allow a passenger to sit in an emergency exit row if the PIC or SCA determine that it is likely that the passenger would be unable to understand and perform the functions necessary to open an exit and to exit rapidly.

(b) No cabin crew member may seat a person in a passenger exit seat if it is likely that the person would be unable to perform one or more of the applicable functions listed below:

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs:

(i) To reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;

(ii) To grasp and push, pull, turn, or otherwise manipulate those mechanisms;

(iii) To push, shove, pull, or otherwise open emergency exits;

(iv) To lift out, hold, deposit on nearby seats, or manoeuvre over the seatbacks to the next row objects the size and mass of over-wing window exit doors;

(v) To remove obstructions of size and mass similar to over-wing exit doors;

(vi) To reach the emergency exit expeditiously;

(vii) To maintain balance while removing obstructions;

(viii) To exit expeditiously;

(ix) To stabilise an escape slide after deployment; or

(x) To assist others in getting off an escape slide.

(2) The person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed above without the assistance of an adult companion, parent, or other relative.

(3) The person lacks the ability to read and understand instructions required by this section and related to emergency evacuation provided by the AOC holder in printed or graphic form or the ability to understand oral crew commands.

(4) The person lacks sufficient visual capacity to perform one or more of the above functions without the assistance of visual aids beyond contact lenses or eyeglasses.

(5) The person lacks sufficient aural capacity to hear and understand instructions shouted by cabin crew members, without assistance beyond a hearing aid.

(6) The person lacks the ability to adequately impart information orally to other passengers.

(7) The person has a condition or responsibilities, such as caring for small children, that might prevent the person from performing one or more of the functions listed above; or a condition that might cause the person harm if he or she performs one or more of the functions listed above.

(c) Determinations as to the suitability of each person permitted to occupy an exit seat shall be made by the cabin crew members or other persons designated in the AOC holder's OM.

(d) In the event a cabin crew member determines that a passenger assigned to an exit seat would be unable to perform the emergency exit functions, or if a passenger requests a non-exit seat, the cabin crew member shall expeditiously relocate the passenger to a non-exit seat.

(e) In the event of full booking in the non-exit seats, and if necessary to accommodate a passenger being relocated from an exit seat, the cabin crew member shall move a passenger who is willing and able to assume the evacuation functions, to an exit seat.

(f) Each AOC ticket agent shall, before boarding, assign seats consistent with the passenger selection criteria and the emergency exit functions, to the maximum extent feasible.

(g) Each AOC ticket agent shall make available for inspection by the public at all passenger loading gates and ticket counters at each aerodrome where the AOC holder conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(h) Each cabin crew member shall include in his or her passenger briefings a request that a passenger identifies himself or herself to allow reseating if he or she:

(1) Cannot meet the selection criteria;

(2) Has a non-discernible condition that will prevent him or her from performing the evacuation functions;

(3) May suffer bodily harm as the result of performing one or more of those functions; or

(4) Does not wish to perform emergency exit functions.

(i) Each cabin crew member shall include in his or her passenger briefings a reference to the passenger information cards and the functions to be performed in an emergency exit.

(j) Each passenger shall comply with instructions given by a crew member or other authorised employee of the AOC holder implementing exit seating restrictions.

(k) No PIC may allow taxi or pushback unless at least one required crew member has verified that all exit rows and escape paths are unobstructed and that no exit seat is occupied by a person the crew member determines is likely to be unable to perform the applicable evacuation functions.

(l) The procedures required by this standard will not become effective until final approval is granted by the Authority. Approval will be based solely upon the safety aspects of the AOC holder's procedures. In order to comply with this standard AOC holders shall:

(1) Establish procedures that address the requirements of this standard; and

(2) Submit their procedures for preliminary review and approval to the Authority.

8.9.2.12 PROHIBITION AGAINST CARRIAGE OF WEAPONS

(a) No person may, while on board an aircraft being operated in commercial air transport, carry on or about their person a deadly or dangerous weapon, either concealed or unconcealed. An AOC holder may permit a person to transport a weapon, in accordance with the AOC holder’s approved security programme:

(1) If the weapon is unloaded; and

(2) Both the weapon and ammunition are securely stowed in a place inaccessible to any person during the flight.

(b) Officials or employees of the State, or crew members who are authorised to carry weapons on board the aircraft in domestic flights, shall do so in accordance with the AOC holders approved security programme. The PIC shall be notified by the AOC as to the number of armed persons and the location of their seats.

(c) The persons identified in item (b) above may not carry weapons aboard an international flight unless there is prior agreement between Curaçao and all States in which the operation will be either conducted or overflown.

8.9.2.13 OXYGEN FOR MEDICAL USE BY PASSENGERS

(a) An AOC holder may allow a passenger to carry and operate equipment for the storage, generation or dispensing of medical oxygen only as prescribed by the Authority.

(b) No person may smoke, and no crew member may allow any person to smoke within 3 m (10 ft) of oxygen storage and dispensing equipment carried for the medical use of a passenger.

(c) No crew member may allow any person to connect or disconnect oxygen dispensing equipment to or from an oxygen cylinder while any other passenger is aboard the aircraft.

8.9.2.14 CARRY-ON BAGGAGE

(a) No person may allow the boarding of carry-on baggage unless it can be adequately and securely stowed in accordance with the AOC holder's approved OM procedures.

(b) No person may allow aircraft passenger entry doors to be closed in preparation for taxi or pushback unless at least one required crew member has verified that each article of baggage has been properly stowed in overhead racks with approved restraining devices or doors, or in approved locations.

(c) No person may allow carry-on baggage to be stowed in a location that would cause that location to be loaded beyond its maximum placard mass limitation.

Note: The stowage locations shall be capable of restraining the articles in crash impacts severe enough to induce the ultimate inertia forces specified in the emergency landing conditions under which the aircraft was type certificated.

8.9.2.15 CARRIAGE OF CARGO IN PASSENGER COMPARTMENTS

(a) No person may allow the carriage of cargo in the passenger compartment of an aircraft except as prescribed by the Authority below.

(b) Cargo may be carried anywhere in the passenger compartment if it is carried in an approved cargo bin that meets the following requirements:

(1) The bin shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by a factor of 1.15, using the combined mass of the bin and the maximum mass of cargo that may be carried in the bin.

(2) The maximum mass of cargo that the bin is approved to carry and any instructions necessary to ensure proper mass distribution within the bin shall be conspicuously marked on the bin.

(3) The bin may not impose any load on the floor or other structure of the aeroplane that exceeds the load limitations of that structure.

(4) The bin shall be attached to the seat tracks or to the floor structure of the aeroplane, and its attachment shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by either the factor 1.15 or the seat attachment factor specified for the aeroplane, whichever is greater, using the combined mass of the bin and the maximum mass of cargo that may be carried in the bin.

(5) The bin may not be installed in a position that restricts access to or use of any required emergency exit, or of the aisle in the passenger compartment.

(6) The bin shall be fully enclosed and made of material that is at least flame resistant.

(7) Suitable safeguards shall be provided within the bin to prevent the cargo from shifting under emergency landing conditions.

(8) The bin may not be installed in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passenger is provided.

(c) Cargo, including carry-on baggage, shall not be stowed in toilets.

(d) Cargo, including carry-on baggage shall not be stowed against bulkheads or dividers in passenger compartments that are incapable of restraining articles against movement forwards, sideways or upwards and unless the bulkheads or dividers carry a placard specifying the greatest mass that may be placed there, provided that:

(1) It is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions.

(2) It is packaged or covered to avoid possible injury to occupants.

(3) It does not impose any load on seats or in the floor structure that exceeds the load limitation for those components.

(4) It is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.

(e) Cargo, including carry-on baggage, may be carried anywhere in the passenger compartment of a small aircraft if it is carried in an approved cargo rack, bin, or compartment installed in or on the aircraft, if it is secured by an approved means, or if it is carried in accordance with each of the following:

(1) For cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence.

(2) It is packaged or covered to avoid possible injury to occupants.

(3) It does not impose any load on seats or in the floor structure that exceeds the load limitation for those components.

(4) It is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.

(5) It is not carried directly above seated occupants.

(6) It is stowed in compliance with these restrictions during take-off and landing.

(7) For cargo-only operations, if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aeroplane if an emergency occurs.

8.9.2.16 PASSENGER INFORMATION SIGNS

(a) The PIC shall turn on required passenger information signs during any movement on the surface, for each take-off and each landing, and when otherwise considered to be necessary.

8.9.2.17 REQUIRED PASSENGER BRIEFINGS

(a) No person may commence a take-off unless the passengers are briefed before take-off in accordance with the AOC holder's OM procedures on:

(1) Smoking limitations and prohibitions;

(2) Emergency exit location and use;

(3) Use of safety belts;

(4) Emergency floatation means location and use;

(5) Fire extinguisher location and operation;

(6) Placement of seat backs;

(7) If flight is above 3,050 m (10,000 ft) MSL, the normal and emergency use of oxygen;

(8) The passenger briefing card; and

(9) Use of other specialised equipment as required by the Authority.

(b) Immediately before or immediately after turning the seat belt sign off, the PIC or CP shall ensure that the passengers are briefed to keep their seat belts fastened while seated, even when the seat belt sign is off.

(c) Before each take-off, the PIC or CP shall ensure that any persons of reduced mobility are personally briefed on:

(1) The route to the most appropriate exit; and

(2) The time to begin moving to the exit in event of an emergency.

8.9.2.18 PASSENGER BRIEFING—EXTENDED OVERWATER OPERATIONS

(a) No person may commence extended overwater operations unless all passengers have been orally briefed on the location and operations of life preservers, life rafts and other flotation means, including a demonstration of the method of donning and inflating a life preserver.

8.9.2.19 PASSENGER SEAT BELTS

(a) Each passenger occupying a seat or berth shall fasten his or her safety belt and keep it fastened while the "Fasten Seat Belt" sign is lighted or, in aircraft not equipped with such a sign, whenever instructed by the PIC.

(b) No passenger safety belt may be used by more than one occupant during take-off and landing.

(c) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crew members in the performance of their duties or with the rapid egress of occupants in an emergency.

Note 1: A person who has not reached his or her second birthday may be held by an adult who is occupying a seat or berth.

Note 2: A berth, such as a multiple lounge or divan seat, may be occupied by two persons provided it is equipped with an approved safety belt for each person and is used during en-route flight only.

8.9.2.20 PASSENGER SEAT BACKS

(a) No PIC or CP may allow the take-off or landing of an aircraft unless each passenger seat back is in the upright position.

Note: Exceptions may only be made in accordance with procedures in the AOC holder's OM provided the seat back does not obstruct any passenger's access to the aisle or to any emergency exit.

8.9.2.21 STOWAGE OF FOOD, BEVERAGE AND PASSENGER SERVICE

(a) No PIC, CP or SCA may allow the movement of an aircraft on the surface, or the take-off or landing of an aircraft:

(1) When any food, beverage or tableware furnished by the AOC holder is located at any passenger seat; and

(2) Unless each food and beverage tray and seat back tray table is in the stowed position.

8.9.2.22 SECURING OF ITEMS OF MASS IN PASSENGER COMPARTMENT

(a) No person may allow the take-off or landing of an aircraft unless each item of mass in the passenger cabin is properly secured to prevent it from becoming a hazard during taxi, take-off and landing and during turbulent weather conditions.

(b) No person may allow an aircraft to move on the surface, take-off or land unless each passenger serving cart is secured in its stowed position.

8.10 CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS: COMMERCIAL AIR TRANSPORT

8.10.1.1 LIMITATION OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 65TH BIRTHDAY

(a) No person may serve nor may any AOC holder use a person as a required PIC in single pilot operations on aircraft engaged in commercial air transport operations if that person has reached his or her 60th birthday.

(b) For aircraft engaged in commercial air transport operations requiring more than one pilot as flight crew members, the AOC holder may use one pilot up to age 65 provided that the other pilot is less than age 60.

(c) For aircraft engaged in long-range commercial air transport operations requiring more than one pilot as flight crew members, the AOC holder may use one pilot up to age 65 provided that the other pilot is less than age 60.

(d) Check persons who have reached their 65th birthday or who do not hold an appropriate medical certificate may continue their check persons functions, but may not serve as or occupy the position of a required pilot flight crew member on an aeroplane engaged in international commercial air transport operations unless the other pilot is less than age 60.

Note: ICAO Annex 1 change effective November 23, 2006.

8.10.1.2 USE OF FLIGHT SIMULATION TRAINING DEVICES

(a) Each FSTD that is used for flight crew member qualification shall:

(1) Be specifically approved by the Authority for:

(i) The AOC holder;

(ii) The type aircraft, including type variations, for which the training or check is being conducted; and

(iii) The particular manoeuvre, procedure, or crew member function involved.

(2) Maintain the performance, functional, and other characteristics that are required for approval.

(3) Be modified to conform with any modification to the aeroplane being simulated that results in changes to performance, functional, or other characteristics required for approval.

(4) Be given a daily functional pre-flight check before use.

(5) Have a daily discrepancy log completed by the appropriate instructor or check person at the end of each training or check flight.

(b) The simulation device shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, heading reference) as those of the aircraft used by the operator.

(1) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.

(2) Operators that have standard instruments shall use simulators that have standard instruments

8.10.1.3 APPROVAL OF A FLIGHT SIMULATION TRAINING DEVICE FOR CREDIT IN TRAINING AND CHECKING

(a) No AOC holder may use a FSTD for training or checking unless that simulator has been specifically approved for the AOC holder in writing by the Authority.

(b) No AOC holder may use a simulator for credit in training, recency and checking other than that specified in the Authority's approval.

8.10.1.4 LICENCE REQUIREMENTS FOR PILOT-IN-COMMAND

(a) No pilot may act as PIC of an aircraft, certificated for operation with more than one pilot, in commercial air transportation operations unless he or she holds an ATPL with applicable category, class and type rating for that aircraft.

(b) No pilot may act as PIC of an aircraft, certificated for operation for one pilot, in commercial air transportation operations unless he or she holds a CPL or an ATPL with applicable category, class and type rating for that aircraft.

(c) If instrument privileges are to be exercised, the PIC shall hold an Instrument rating.

8.10.1.5 LICENCE REQUIREMENTS FOR CO-PILOT AND CRUISE RELIEF PILOT

(a) No pilot may act as CP of an aircraft in commercial air transport operations unless he or she holds either a CPL/Instrument Rating or an ATPL, each with category, class and type ratings, as applicable, for the aircraft operated.

(b) No pilot may act as a cruise relief pilot in commercial air transport operations unless he or she holds an ATPL with category, and if applicable, class and type ratings, and has completed all training to serve as PIC with the exception of initial operating experience.

8.10.1.6 FLIGHT ENGINEER LICENCE REQUIREMENTS

(a) No person may act as the FE of an aircraft unless he or she an FE licence with the appropriate class rating.

8.10.1.7 ONE PILOT QUALIFIED TO PERFORM FLIGHT ENGINEER FUNCTIONS

(a) The AOC holder shall ensure that, on all flights requiring an FE, there is assigned at least one other flight crew member qualified to perform the FE duties in the event the FE becomes incapacitated.

8.10.1.8 PERSONS QUALIFIED TO FLIGHT RELEASE

(a) No person may act as a FOO in releasing a scheduled passenger-carrying commercial air transport operation unless that person:

(1) Holds an FOO operator authorization approved by the authority or an ATPL or a CPL for day-VFR operations with aircraft certificated for 9 passengers or less; and

(2) Is currently qualified with the AOC holder for the operation and type of aircraft used.

Note: The AOC holder shall maintain the requirements stated in CCAR Subpart 2.8 for the issuance of the FOO operator authorization approved by the Authority.

8.10.1.9 COMPANY PROCEDURES INDOCTRINATION

(a) No person may serve nor may any AOC holder use a person as a crew member or FOO flight dispatcher unless that person has completed the company procedures indoctrination curriculum approved by the Authority, which shall include a complete review of the applicable regulations and OM procedures pertinent to the crew member or flight operation officer's duties and responsibilities.

(b) The AOC holder shall provide a minimum of 40 programmed hours of instruction for company procedures indoctrination training unless a reduction is determined appropriate by the Authority.

(c) The knowledge area topics to be covered are prescribed in IS 8.10.1.9.

8.10.1.10 INITIAL OR RECURRENT DANGEROUS GOODS GROUND TRAINING REQUIREMENTS

(a) Operators that are not approved for the shipping of dangerous goods, shall establish, maintain, and have approved by the Authority, initial and recurrent personnel training programmes, as required by the Technical Instructions, on the subjects prescribed in IS 8.10.1.10.

(b) The following entities involved in the shipping of dangerous goods, shall establish, maintain, and have approved by the Authority, initial and recurrent personnel training programmes, as required by the Technical Instructions, on the subjects prescribed in IS 8.10.1.10.

(1) shippers of dangerous goods, including packers and persons or organisations undertaking the responsibilities of the shipper;

(2) operators;

(3) ground handling agencies which perform, on behalf of the operator, the act of accepting, handling, loading, unloading, transferring or other processing of cargo or mail;

(4) ground handling agencies located at an aerodrome which perform, on behalf of the operator, the act of processing passengers;

(5) agencies, not located at an aerodrome, which perform, on behalf of the operator, the act of checking in passengers;

(6) freight forwarders;

(7) agencies engaged in the security screening of passengers and crew and their baggage and/or cargo or mail; and

(8) designated postal operators.

(c) Recurrent training shall be satisfactorily completed every 24 months.

(d) Dangerous goods training programmes required for the operator in (b)(2) above shall be approved by the Authority.

Note: Dangerous goods training programmes required for other than the operator in (b)(2) shall be subjected to review and approval by the appropriate national authority.

8.10.1.11 INITIAL OR RECURRENT SECURITY TRAINING REQUIREMENTS

(a) No person may serve nor may any AOC holder use operational personnel unless they have completed the initial security curriculum approved by the Authority.

(b) No person may serve nor may any AOC holder use operational personnel unless they have completed the recurrent training security curriculum approved by the Authority within 12 calendar months.

(c) The operator shall establish and maintain an approved security training programme which ensures crew members act in the most appropriate manner to minimise the consequences of acts of unlawful interference. As a minimum, this programme shall include the following elements:

(1) determination of the seriousness of any occurrence;

(2) crew communication and coordination;

(3) appropriate self-defence responses;

(4) use of non-lethal protective devices assigned to crew members whose use is authorised by the State of the Operator;

(5) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;

(6) live situational training exercises regarding various threat conditions;

(7) flight crew compartment procedures to protect the aeroplane; and

(8) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

(d) The operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

8.10.1.12 INITIAL CREW RESOURCE MANAGEMENT TRAINING

(a) No person may serve nor may any AOC holder use a person as a FOO or crew member unless that person has completed the initial CRM curriculum approved by the Authority.

(b) Course curriculum topics are prescribed in IS 8.10.1.12.

8.10.1.13 INITIAL EMERGENCY EQUIPMENT DRILLS

(a) No person may serve nor may any AOC holder use a person as a crew member unless that person has completed the appropriate initial emergency equipment curriculum and drills for the crew member position approved by the Authority for the emergency equipment available on the aircraft to be operated.

(b) Course curriculum requirements are prescribed in IS 8.10.1.13.

8.10.1.14 INITIAL AIRCRAFT GROUND TRAINING

(a) No person may serve nor may any AOC holder use a person as a crew member or FOO unless he or she has completed the initial ground training approved by the Authority for the aircraft type.

(b) Initial aircraft ground training for flight crew members shall include the pertinent portions of the OM relating to aircraft-specific performance, mass and balance, operational policies, systems, limitations, normal, abnormal and emergency procedures on the aircraft type to be used. Specific course curriculum requirements for flight crew members are prescribed in IS 8.10.1.14(B).

Note: The AOC holder may have separate initial aircraft ground training curricula of varying lengths and subject emphasis, which recognise the experience levels of flight crew members, approved by the Authority.

(c) For cabin crew members, initial aircraft ground training shall include the pertinent portions of the OM relating to aircraft-specific configuration, equipment, normal and emergency procedures for the aircraft types within the fleet. Specific course curriculum requirements for cabin crew members are prescribed in IS 8.10.1.14(C).

(d) For FOOs, aircraft initial ground training shall include the pertinent portions of the OM relating to aircraft-specific flight preparation procedures, performance, mass and balance, systems, limitations for the aircraft types within the fleet. Specific course curriculum requirements for FOOs are prescribed in IS 8.10.1.14(D).

8.10.1.15 INITIAL AIRCRAFT FLIGHT TRAINING

(a) No person may serve nor may any AOC holder use a person as a flight crew member unless he or she has completed the initial flight training approved by the Authority for the aircraft type.

(b) Initial flight training shall focus on the manoeuvring and safe operation of the aircraft in accordance with AOC holder's normal, abnormal and emergency procedures.

(c) An AOC holder may have separate initial flight training curricula, which recognise the experience levels of flight crew members, approved by the Authority.

(d) Specific flight training curriculum requirements are prescribed in IS 8.10.1.15(a)(d) for pilots, IS 8.10.1.15(b)(d) for FEs, and IS 8.10.1.15(c) for navigators.

8.10.1.16 INITIAL SPECIALISED OPERATIONS TRAINING

(a) No person may serve nor may any AOC holder use a person as a flight crew member unless he or she has completed the appropriate initial specialised operations training curriculum approved by the Authority.

(b) Specialised operations for which initial training curricula shall be developed include:

(1) Low minimums operations, including LVTOs and CAT II and CAT III operations;

(2) Extended range operations;

(3) Specialised navigation;

(4) PIC right seat qualification;

(5) RVSM; and

(6) RNP.

(c) Specific initial specialised operations training curriculum requirements are prescribed in IS 8.10.1.16.

8.10.1.17 AIRCRAFT DIFFERENCES

(a) No person may serve nor may any AOC holder use a person as a FOO or crew member on an aircraft of a type for which a differences curriculum is included in the AOC holder's approved training programme, unless that person has satisfactorily completed that curriculum, with respect to both the crew member position and the particular variant of that aircraft.

(b) A general listing of subjects to be covered in aircraft differences training is prescribed in IS: 8.10.1. 17.

Note 1: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 2: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

8.10.1.18 RESERVED

8.10.1.19 INTRODUCTION OF NEW EQUIPMENT OR PROCEDURES

(a) No person may serve nor may any AOC holder use a person as a flight crew member when that service would require expertise in the use of new equipment or procedures for which a curriculum is included in the AOC holder's approved training programme, unless that person has satisfactorily completed that curriculum, with respect to both the crew member position and the particular variant of that aircraft.

Note 1: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 2: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

8.10.1.20 PILOT PROFICIENCY – AIRCRAFT AND INSTRUMENT PROFICIENCY CHECKS

(a) No person may serve nor may any AOC holder use a person as a pilot flight crew member unless, since the beginning of the 12th calendar month before that service, that person has passed the aircraft pilot proficiency check prescribed by Authority in the make, and model aircraft on which their services are required.

(b) No person may serve nor may any AOC holder use a person as a pilot in IFR operations unless, since the beginning of the 6th calendar month before that service, that pilot has passed the instrument proficiency check prescribed by the Authority.

(c) A pilot may complete the requirements of paragraphs (a) and (b) simultaneously in a specific aircraft type.

(d) The manoeuvres for aircraft pilot proficiency and instrument proficiency checks conducted under this part are prescribed in IS 8.10.1.20 and in Part 2 of these regulations under the appropriate skill test.

Note 1: FSTDs approved by the State of the Operator may be used for those parts of the checks for which they are specifically approved.

Note 2: See ICAO Doc 9625, Manual of Criteria for the Qualification of Flight Simulation Training Devices.

8.10.1.21 RE-ESTABLISHING RECENCY OF EXPERIENCE - FLIGHT CREW

(a) PILOTS:

(1) In addition to meeting all applicable training and checking requirements, a required pilot flight crew member who, in the preceding 90 days has not made at least three take-offs and landings in the aircraft in which that person is to serve, shall, under the supervision of a check person, re-establish recency of experience as follows:

(i) Make at least three take-offs and landings in the aircraft in which that person is to serve or in a qualified simulator.

(ii) Make at least one take-off with a simulated failure of the most critical powerplant, one landing from the minimum ILS authorised for the AOC holder, and one landing to a full stop.

(2) When using a simulator to accomplish any of the take-off and landing training requirements necessary to re-establish recency of experience, each required flight crew member position shall be occupied by an appropriately qualified person and the simulator shall be operated as if in a normal in-flight environment without use of the repositioning features of the simulator.

(3) A check person who observes the take-offs and landings of a pilot flight crew member shall certify that the person being observed is proficient and qualified to perform flight duty in operations and may require any additional manoeuvres that are determined necessary to make this certifying statement.

(b) FLIGHT ENGINEER. An FE who in the preceding 6 months has not flown 50 hours flight time with an AOC holder as FE in the appropriate class of aeroplane shall re-establish recency by taking the proficiency check specified in Subsection 8.10.1.23 of this part.

(c) FLIGHT NAVIGATOR. An FN who in the preceding 6 months has not flown 50 hours flight time with an AOC holder as FN in the appropriate class of aircraft shall re-establish recency by taking the proficiency check specified in Subsection 8.10.1.23 of this part.

8.10.1.22 PAIRING OF LOW EXPERIENCE PILOTS

(a) If a CP has fewer than 100 hours of flight time in the type aircraft being flown in commercial air transport, and the PIC is not an appropriately qualified check person, the PIC shall make all take-offs and landings in situations designated as critical by the Authority in IS: 8.10.1.22.

(b) No PIC or CP may conduct operations for a type aircraft in commercial air transport unless either pilot has at least 75 hours of line operating flight time, either as PIC or CP.

(c) The Authority may, upon application by the AOC holder, authorise an exemption for the reduction of the number of hours from paragraph (b) by an appropriate amendment to the operations specifications in any of the circumstances identified in IS 8.10.1.22.

8.10.1.23 FLIGHT ENGINEER AND FLIGHT NAVIGATOR PROFICIENCY CHECKS

(a) No person may serve nor may any AOC holder use a person as an FE or an FN on an aeroplane unless within the preceding 12 calendar months he or she has a proficiency check in accordance with the requirements prescribed by the Authority for the skill test in Part 2 of these regulations.

8.10.1.24 COMPETENCY CHECKS—CABIN CREW MEMBERS

(a) No person may serve nor may any AOC holder use a person as a cabin crew member unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check prescribed by the Authority in IS: 8.10.1.24 performing the emergency and other duties appropriate to that person's assignment.

8.10.1.25 COMPETENCY CHECKS—FLIGHT OPERATIONS OFFICERS

(a) No person may serve nor may any AOC holder use a person as a FOO unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check, prescribed by the Authority in IS: 8.10.1.25, performing the flight preparation and subsequent duties appropriate to that person's assignment.

8.10.1.26 SUPERVISED LINE FLYING—PILOTS

(a) Each pilot initially qualifying as PIC shall complete a minimum of 10 flights performing the duties of a PIC under the supervision of a check person.

(b) Each PIC transitioning to a new aircraft type shall complete a minimum of 5 flights performing the duties of a PIC under the supervision of a check person.

(c) Each pilot qualifying for duties other than PIC shall complete a minimum of 5 flights performing those duties under the supervision of a check person.

(d) During the time that a qualifying PIC is acquiring operating experience, a check person who is also serving as the PIC shall occupy a person station.

(e) In the case of a transitioning PIC, the check person serving as PIC may occupy the observer's seat if the transitioning pilot has made at least two take-offs and landings in the type aircraft used, and has satisfactorily demonstrated to the check person that he or she is qualified to perform the duties of a PIC for that type of aircraft.

8.10.1.27 SUPERVISED LINE FLYING—FLIGHT ENGINEERS

(a) Each person qualifying as a FE for each aircraft class – reciprocating engine, turbopropeller powered, or turbojet powered -- shall perform those functions for a minimum of 5 flights under the supervision of a check person approved by the Authority.

8.10.1.28 SUPERVISED LINE EXPERIENCE—CABIN CREW MEMBERS

(a) Each person qualifying as a cabin crew member shall perform those functions on the following aircraft under the supervision of a check person before qualifying as a required crew member:

(1) Reciprocating-engine or turbopropeller powered aircraft – for a minimum of two flights that shall include at least 5 hours flown; or

(2) Turbojet powered aircraft—for a minimum of two flights.

8.10.1.29 LINE OBSERVATIONS—FLIGHT OPERATIONS OFFICERS

(a) No person may serve nor may any AOC holder use a person as a FOO unless, since the beginning of the 12th calendar month before that service, that person has observed, on the flight deck, the conduct of two complete flights, comprising at least 5 total hours, over routes representative of those for which that person is assigned duties.

8.10.1.30 LINE (ROUTE AND AREA) CHECKS—PILOT QUALIFICATION

Note: The terms "line check" and "route and area check" are synonymous.

(a) No person may serve nor may any AOC holder use a person as a pilot unless, within the preceding 12 calendar-months, that person has passed a line check in which he or she satisfactorily performed his or her assigned duties in one of the types of aircraft he or she is to fly.

(b) No person may perform PIC duties over a designated special operational area that requires a special navigation system or procedures or in EDTO operations unless his or her competency with the system and procedures has been demonstrated to the AOC holder within the preceding 12 calendar-months.

(c) Each PIC shall demonstrate operational competency by navigation over the route and area to be flown and the aerodromes to be used as PIC under the supervision of a check person and, on a continuing basis, by flights performing PIC duties. This, at a minimum, shall include a PIC demonstration of knowledge in the following:

(1) The terrain and minimum safe altitudes.

(2) The seasonal meteorological conditions.

(3) The search and rescue procedures.

(4) The navigational facilities and procedures, including any LORAN procedures, associated with the route along which the flight is to take place.

(5) Procedures applicable to:

(i) Flight paths over heavily populated areas or high air traffic density;

(ii) Obstructions;

(iii) Physical layout;

(iv) Lighting, approach aids;

(v) Arrival, departure, holding and IAPs; and

(vi) Applicable operating minima.

(d) NOTAMs.

8.10.1.31 RESERVED

8.10.1.32 PILOT-IN-COMMAND LOW MINIMA AUTHORISATION

(a) Until a PIC has 15 flights performing PIC duties in the aircraft type (which included 5 approaches to landing using CAT I or CAT II procedures), he or she may not plan for or initiate an instrument approach when the DH or MDA is less than 100 m (300 ft) and the visibility less than 1.5km (1 SM).

(b) Until a PIC has 20 flights performing PIC duties in the aircraft type (which included 5 approach and landing using CAT III procedures), he or she may not plan for or initiate an approach when the DH or MDA is less than 30 m (100 ft) or the visibility is less than 350 m RVR (1,200 ft).

8.10.1.33 DESIGNATED SPECIAL AERODROMES AND HELIPORTS - PILOT-IN-COMMAND QUALIFICATION

(a) The Authority may determine that certain airports, due to items such as surrounding terrain, obstructions, or complex approach or departure procedures, are special aerodromes requiring special aerodrome qualifications and that certain areas or routes, or both, require a special type of navigation qualifications.

(b) No person may serve nor may any AOC holder use a person as PIC for operations at designated special aerodromes and heliports unless within the preceding 12 calendar-months:

(1) The PIC has been qualified by the AOC holder through a pictorial means acceptable to the Authority for that aerodrome; or

(2) The PIC or the assigned CP has made a take-off and landing at that aerodrome while serving as a flight crew member for the AOC holder.

(3) If the 12 months qualification period required in item (b) has expired, the PIC shall re-qualify in accordance with the requirements in item (b).

(c) Designated special aerodrome and heliport limitations are not applicable if the operation will occur:

(1) During daylight hours;

(2) When the visibility is at least 5 km (3 miles); and

(3) When the ceiling at that aerodrome is at least 300 m (1,000 ft) above the lowest initial approach altitude prescribed for an IAP.

8.10.1.34 RECURRENT TRAINING—FLIGHT CREW MEMBERS

(a) No person may serve nor may any AOC holder use a person as a flight crew member unless within the preceding 12 calendar-months that person has completed the recurrent ground and flight training curricula approved by the Authority.

(b) The recurrent ground training shall include training on:

(1) Aircraft systems and limitations and normal, abnormal and emergency procedures;

(2) Emergency equipment and drills;

(3) CRM;

(4) Recognition or transportation of dangerous goods; and

(5) Security training.

(c) The recurrent flight training curriculum shall include:

(1) Manoeuvring and safe operation of the aircraft in accordance with AOC holder's normal, abnormal and emergency procedures;

(2) Manoeuvres and procedures necessary for avoidance of in-flight hazards; and

(3) For authorised pilots, at least one LVTO to the lowest applicable minimum LVTO and two approaches to the lowest approved minimums for the AOC holder, one of which is to be a missed approach.

(d) Satisfactory completion of a proficiency check with the AOC holder for the type aircraft and operation to be conducted may be used in lieu of recurrent flight training.

(e) Detailed recurrent training requirements for pilots, FEs, and FNs are prescribed in IS 8.10.1.33.

8.10.1.35 RECURRENT TRAINING AND RE-ESTABLISHMENT OF QUALIFICATIONS—CABIN CREW MEMBERS

(a) No person may serve nor may any AOC holder use a person as a cabin crew member unless within the preceding 12 calendar-months that person has completed the recurrent ground curricula approved by the Authority relevant to the type(s) and/or variant(s) of aircraft and operations to which he or she is assigned.

(b) The recurrent ground training shall include training on:

(1) Aircraft-specific configuration, equipment and procedures;

(2) Emergency and first aid equipment and drills;

(3) CRM;

(4) Recognition or transportation of dangerous goods; and

(5) Security training.

(c) Specific normal and emergency programme training requirements for cabin crew members are prescribed in IS: 8.10.1.34.

(d) A required cabin crew member who, due to a period of inactivity, has not met the recurrent training requirements in paragraphs (a) through (c) shall complete the initial AOC training programme and competency check specified in 8.10.1.24 of this part.

8.10.1.36 RECURRENT TRAINING AND RE-ESTABLISHMENT OF QUALIFICATIONS—FLIGHT OPERATIONS OFFICERS

(a) No person may serve nor may any AOC holder use a person as a FOO unless within the preceding 12 calendar-months that person has completed the recurrent ground curricula approved by the Authority relevant to the type(s) and/or variant(s) of aircraft and positions to which he or she is assigned.

(b) Specific requirements for FOO recurrent training are prescribed in IS: 8.10.1.35. A required FOO who, due to a period of inactivity, has not met the recurrent training requirements in paragraphs (a) through (b) shall complete the initial AOC training programme and competency check specified in 8.10.1.25 of this part.

8.10.1.37 INSTRUCTOR QUALIFICATIONS –FLIGHT CREW, CABIN CREW, FLIGHT OPERATIONS OFFICER, DANGEROUS GOODS

(a) FLIGHT CREW. No AOC holder may use a person nor may any person serve as a flight instructor in an established flight training programme unless, with respect to the aircraft type involved, that person:

(1) Holds the personnel licences and ratings required to serve as a PIC, an FE, or an FN, as applicable;

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as a PIC, an FE, or an FN, as applicable;

(3) Has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a PIC, an FE, or an FN, as applicable;

(4) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed in-flight competency check; and

(5) Holds the appropriate medical certificate for service as a required crew member.

(b) FLIGHT INSTRUCTOR – FLIGHT SIMULATION TRAINING. No person may serve nor may any AOC holder use a person as a Flight Instructor in an FSTD, unless, since the beginning of the 12th calendar month before that service, that person has:

(1) Flown at least five flights as a required crew member for the type of aircraft involved; or

(2) Observed, on the flight deck, the conduct of 2 complete flights in the aircraft type to which the person is assigned.

(c) CABIN CREW. No AOC holder may use a person nor may any person serve as an instructor in an established cabin crew training programme unless, with respect to the aircraft type or position involved, that person:

(1) Holds the qualification required to serve as a cabin crew member;

(2) Has satisfactorily completed the appropriate training phases for the aircraft and position involved, including recurrent training and differences training, that are required to serve as a cabin crew member;

(3) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to service as a cabin crew member;

(4) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check.

(d) FLIGHT OPERATIONS OFFICER. No AOC holder may use a person nor may any person serve as an instructor in an established FOO training programme unless, with respect to the aircraft type and position involved, that person:

(1) Holds the operator authorization required to serve as a FOO;

(2) Has satisfactorily completed the appropriate training phases for the aircraft or position involved, including recurrent training and differences training, that are required to serve as a FOO;

(3) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a FOO; and

(4) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check.

(e) DANGEROUS GOODS. No AOC holder may use a person nor may any person serve as an instructor in an established dangerous goods training programme unless:

(1) they have adequate instructional skills and

(2) have successfully completed a dangerous goods training programme and in an applicable category to be taught.

8.10.1.38 INSTRUCTOR TRAINING

(a) No person may serve nor may any AOC holder use a person as an instructor for flight crew, cabin crew, FOOs, or dangerous goods, unless he or she has completed the curricula approved by the Authority for those functions for which they are to serve.

(b) Specific training programme requirements for flight crew instructors are prescribed in IS 8.10.1.37.

8.10.1.39 PERSONNEL APPROVED TO CONDUCT CHECKS

(a) The Authority may approve the following AOC holder personnel to conduct checks when such personnel meet the requirements for the authorised responsibilities, and may be approved for either aircraft or simulator, or both, as applicable, for checking of flight crew.

(1) Check pilot;

(2) Check flight engineer;

(3) Check flight navigator;

(4) Check cabin crew member; and

(5) Check FOO.

(b) The authorized duties of check personnel are to:

(1) Conduct initial and recurrent proficiency checks for flight crew and competency checks for cabin crew and FOO,

(2) Certify as satisfactory, the knowledge and proficiency of the flight crew, and the knowledge and competency of the cabin crew and FOOs; and

(3) For all check personnel, supervise operating experience (OE).

(c) No person may serve nor may any AOC holder use a person as a check personnel under the AOC holder's crew member checking and standardisation programme in Part 9 of these regulations unless that person has:

(1) been identified by name and function and approved in writing by the Authority; and

(2) successfully completed the AOC holder's curricula approved by the Authority for those functions for which he or she is to serve.

(d) Once approved, no person may serve nor may any AOC holder use a person as a check personnel for any flight crew, cabin crew or FOO checks unless that person has demonstrated, initially and at least biennially to an Authority inspector, the ability to conduct a check for which he or she is approved.

8.10.1.40 CHECK PERSONNEL QUALIFICATIONS

(a) CHECK PERSONNEL FOR FLIGHT CREW (Check Pilot / Check Flight Engineer / Check Flight Navigator).

(1) No AOC holder may use a person, nor may any person serve as a check personnel in an established flight crew training programme unless, with respect to the aircraft type involved, that person:

(i) Holds the personnel licences and ratings required to serve as a PIC, an FE, or an FN, as applicable;

(ii) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as a PIC, an FE, or an FN, as applicable;

(iii) Has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a PIC, an FE, or an FN, as applicable;

(iv) Has satisfactorily completed the applicable initial or transitional training requirements and the Civil Aviation Authority-observed in-flight competency check for check personnel duties;

(v) Holds the appropriate medical certificate if serving as a required flight crew member; and

(vi) Has been approved by the Authority for the check airman duties involved.

(2) CHECK PERSONNEL (Check Pilot / Check Flight Engineer / Check Flight Navigator) – SIMULATOR: ADDITIONAL REQUIREMENTS. No person may serve nor may any AOC holder use a person as a check personnel in an FSTD, unless, since the beginning of the 12th calendar month before that service, that person has:

(i) Flown at least 5 flights as a required crew member for the type of aircraft involved; or

(ii) Observed, on the flight deck, the conduct of 2 complete flights in the aircraft type to which the person is assigned.

(b) CHECK PERSONNEL FOR CABIN CREW (Check Cabin Crew Member).

(1) No AOC holder may use a person, nor may any person serve as a check cabin crew member in an established cabin crew training programme unless, with respect to the aircraft type or position involved, that person:

(i) Holds the qualifications required to serve as a cabin crew member;

(ii) Has satisfactorily completed the appropriate training phases for the aircraft and or position, including recurrent training and differences training, that are required to serve as a cabin crew member;

(iii) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a cabin crew member;

(iv) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check for the check personnel duties; and

(v) Has been approved by the Authority for the check cabin crew member duties involved.

(c) CHECK PERSONNEL FOR FLIGHT OPERATIONS OFFICERS (Check FOO).

(1) No AOC holder may use a person, nor may any person serve as a check flight operations officer in an established FOO training programme unless, with respect to the aircraft type or position involved, that person:

(i) Holds the licence required to serve as a FOO;

(ii) Has satisfactorily completed the appropriate training phases for the aircraft and or position, including recurrent training and differences training, that are required to serve as a FOO;

(iii) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a FOO;

(iv) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check for the check FOO duties involved.

(v) Has been approved by the Authority for the check FOO duties involved.

8.10.1.41 CHECK PERSONNEL TRAINING

(a) No person may serve nor may any AOC holder use a person for checks unless he or she has completed the curricula approved by the Authority for those functions for which they are to serve.

(b) Specific training programme requirements for check personnel are prescribed in IS 8.10.1.40.

8.10.1.42 SINGLE-PILOT OPERATIONS UNDER INSTRUMENT FLIGHT RULES OR AT NIGHT – QUALIFICATIONS, TRAINING, CHECKING

(a) No person may conduct single-pilot-operations under IFR or at night in commercial air transportation, in accordance with 8.8.1.30 of this part, unless the operation is approved by the Authority and the pilot has at least 50 hours flight time in the aircraft class in which he or she is to serve and of those 50 hours, not less than 10 hours shall be as PIC.

(b) For single-pilot-operations conducted under IFR:

(1) The pilot shall have at least 25 hours flight time under IFR in the type and class of aircraft in which he or she is to serve.

(2) The 25 hours flight time under IFR referenced in (b)(1) may form part of the required 50 hours flight time in aircraft class.

(3) The pilot shall have performed in single-pilot-operations, at least 5 IFR flights including 3 instrument approaches in the class of aircraft in which he or she is to serve within 90 days preceding the flight, or

(4) Within 90 days preceding the flight, the pilot has satisfactorily completed the single-pilot-operation instrument competency check, as prescribed by the Authority, in the class of aircraft in which he or she is to serve.

(c) For single-pilot-operations conducted at night:

(1) The pilot shall have performed in single-pilot–operations at least 3 take-offs and landings at night in the type and class of aircraft in which he or she is to serve within 90 days preceding the flight, and

(2) Have successfully completed the approved single-pilot-operation training programme prescribed by the Authority.

(d) No pilot may serve nor may any AOC holder assign a person to operate an aircraft in single-pilot-operations in commercial air transport unless the pilot has:

(1) Successfully completed the relevant training requirements of 8.10 of this part applicable to flight crew members engaged in commercial air transport;

(2) Successfully completed the approved single-pilot operations training programme prescribed by the Authority, and

(3) Satisfactorily completed the single-pilot operations checking requirements, as prescribed by the Authority, in the type and class of aircraft in which he or she is to serve.

Note: In addition to successfully completing the relevant training requirements of 8.10 of this part that are applicable to flight crew members engaged in commercial air transport, additional training for pilots conducting single-pilot-operations at night shall include passenger briefings with respect to emergency evacuation, autopilot management and the use of simplified in-flight documentation.

8.10.1.43 RESERVED

8.10.1.44 MONITORING OF TRAINING AND CHECKING ACTIVITIES

(a) To enable adequate supervision of its training and checking activities, the AOC holder shall forward to the Authority at least 24 hours before the scheduled activity the dates, report times and report location of all:

(1) Training for which a curriculum is approved in the AOC holder's training programme; and

(2) Proficiency, competency and line checks.

(b) Failure to provide the information required by paragraph (a) may invalidate the training or check and the Authority may require that it be repeated for observation purposes.

8.10.1.45 TERMINATION OF A PROFICIENCY, COMPETENCY OR LINE CHECK

(a) If it is necessary to terminate a check for any reason, the AOC holder may not use the crew member or FOO in commercial air transport operations until the completion of a satisfactory recheck.

8.10.1.46 RECORDING OF CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS

(a) The AOC holder shall record in its records maintained for each crew member and FOO, the completion of each of the qualifications required by this Part.

(b) A crew member or FOO may complete the curricula required by this Part concurrently or intermixed with other required curricula, but completion of each of these curricula shall be recorded separately.

8.10.1.47 RESERVED

8.10.1.48 ELIGIBILITY PERIOD

(a) Crew members required to take a proficiency check, test or competency check, or recurrent training to maintain qualification for commercial air transport operations may complete those requirements at any time during the eligibility period.

(b) The eligibility period is defined as the three calendar month period including the month-prior, the month-due, and the month-after any due date specified by this subsection.

(c) Completion of the requirement at any time during the period shall be considered as completed in the month-due for calculation of the next due date.

8.10.1.49 REDUCTIONS IN REQUIREMENTS

(a) The Authority may authorise reductions in, or waive, certain portions of the training requirements of this subpart, taking into account the previous experience of the crew members.

(b) Any AOC holder request for reduction or waiver shall be made in writing and outline the basis under which the request is made.

(c) If the request was for a specific crew member, the correspondence from the Authority authorising the reduction and the basis for it shall be filed in the record the AOC holder maintains for that crew member.

(d) If approved by the Authority, a person need not complete the programmed hours of flight training for the particular aircraft if he or she:

(1) progresses successfully through flight training,

(2) is recommended by their instructor, and

(3) successfully completes the appropriate flight check with a check person.

(e) If approved by the Authority, a person need not complete the programmed hours of cabin crew or flight operations officer training if he or she:

(1) progresses successfully through cabin crew or flight operations officer training,

(2) is recommended by their instructor, and

(3) successfully completes the appropriate competency check with a check person.

(f) Whenever the Authority finds that 20 per cent of the checks given at a particular training base during the previous 6 months are unsuccessful, this method of approval will not be used by the AOC holder at that base until the Authority finds that the effectiveness of the training programme has improved.

8.11 FATIGUE MANAGEMENT

8.11.1.1 APPLICABILITY

(a) This section is applicable to the management of fatigue-related safety risks of crew members and FOOs/flight dispatchers engaged in commercial air transport flight operations.

8.11.1.2 MANAGING FATIGUE-RELATED SAFETY RISKS

(a) For the purpose of managing fatigue-related safety risks, an AOC holder shall establish either:

(1) flight time, flight duty period, duty period limitations and rest period requirements that are within the prescriptive fatigue management regulations in 8.12 of this part; or

(2) An FRMS in compliance with paragraph 8.11.1.2(e) of this subsection; or

(3) a FRMS in compliance with paragraph 8.11.1.2(e) of this subsection for part of its operations and the requirements of 8.12 of this part for the remainder of its operations.

(b) Where the operator adopts prescriptive fatigue management regulations for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to these regulations on the basis of a risk assessment provided by the operator. Approved variations shall provide a level of safety equivalent to, or better than that achieved through the prescriptive fatigue management regulations.

(c) The Authority shall approve an operator's FRMS before it may take the place of any or all of the prescriptive fatigue management regulations. An approved FRMS shall provide a level of safety equivalent to, or better than, the prescriptive fatigue management regulations.

(d) Operators using an FRMS shall adhere to the following provisions of the FRMS approval process that allows the Authority to ensure that the approved FRMS meets the requirements of paragraph 8.11.1.2(c) of this subsection:

(1) Establish maximum values for flight times and/or flight duty period(s) and duty period(s), and minimum values for rest periods that shall be based upon scientific principles and knowledge, subject to safety assurance processes.

Note: Guidance on the development and implementation of fatigue management regulations is contained in ICAO Doc 9966, Manual for the Oversight of Fatigue Management Approaches.

(2) Adhere to Authority mandates to decrease maximum values and increase in minimum values in the event that the operator's data indicates these values are too high to too low, respectively; and

(3) Provide justification to the Authority for any increase in maximum values or decrease in minimum values based on accumulated FRMS experience and fatigue-related data before such changes will be approved by the Authority.

(e) Operators implementing an FRMS to manage fatigue-related safety risks shall, as a minimum:

(1) Incorporate scientific principles and knowledge within the FRMS;

(2) Identify fatigue-related safety hazards and the resulting risks on an ongoing basis;

(3) Ensure that the remedial actions, necessary to effectively mitigate the risks associated with the hazards, are implemented promptly;

(4) Provide for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions; and

(5) Provide for continuous improvement to the overall performance of the FRMS.

Note: Provisions on the protection of safety data, safety information and related sources are contained in ICAO Annex 19, Appendix 3.

8.11.1.3 DUTY AND REST PERIODS

(a) Duty and rest periods for flight crew and cabin crew are prescribed in Subpart 8.12.

8.12 FLIGHT TIME, FLIGHT DUTY PERIODS, DUTY PERIODS, AND REST PERIODS FOR FATIGUE MANAGEMENT

8.12.1 GENERAL

8.12.1.1 APPLICABILITY

(a) This section is applicable to the rest, duty and flight time limitations of crew members and FOOs (flight dispatchers) engaged in commercial air transport flight operations.

8.12.1.2 NUTRITION

(a) Crew members and operators should be aware that a lack of sustenance could prove detrimental to an individual's performance and level of vigilance. Meal opportunities should occur sufficiently frequently in order to avoid any detriment to a crew member's performance. Where the FDP exceeds 6 hours, a meal opportunity shall be built into the schedule.

8.12.1.3 FLIGHT DUTY, DUTY AND REST PERIOD RECORDS

(a) The operator shall ensure that crew member's records include:

(1) block times;

(2) start, duration and end of each duty or flight duty periods;

(3) rest periods and days free of all duties; and are maintained to ensure compliance with the requirements of this Subpart; copies of these records will be made available to the crew member upon request.

(b) All crew members shall maintain an individual record as appropriate of his/her:

(1) block times;

(2) start, duration and end of each duty or flight duty periods; and

(3) rest periods and days free of all duties.

(c) A crew member shall present his/her records on request to any operator who employs his/her services before he/she commences a flight duty period.

(d) Records shall be preserved for at least 15 calendar months from the date of the last relevant entry.

(e) Additionally, operators shall separately retain all commander's discretion reports of extended flight duty periods, extended flight hours and reduced rest periods for at least six months after the event.

8.12.2 OBJECTIVE AND SCOPE

8.12.2.1 AIR OPERATOR RESPONSIBILITIES

(a) The operator shall establish a flight and duty time limitations and rest scheme (FTL) for crew members.

(b) The operator shall ensure that for all its flights:

(1) the flight and duty time limitations and rest scheme is in accordance with both:

(i) the provisions of this Subpart; and

(ii) any additional provisions that are applied by the Authority in accordance with the provisions of this Subpart for the purpose of maintaining safety.

(2) Flights are planned to be completed within the allowable flight duty period taking into account the time necessary for pre-flight duties, the flight and turn-around times and the nature of operation.

(3) Duty rosters will be prepared and published sufficiently in advance to provide the opportunity for crew members to plan adequate rest.

(c) The operator shall nominate a home base for each crew member.

(d) Operators shall be expected to appreciate the relationship between the frequencies and pattern of flight duty periods and rest periods and give due consideration to the cumulative effects of undertaking long duty hours interspersed with minimum rest.

(e) Operators shall allocate duty patterns which avoid such undesirable practices as alternating day/night duties or the positioning of crew members so that a serious disruption of established sleep/work pattern occurs.

(f) Operators shall plan local days free of duty and notify crew members in advance.

(g) Operators shall ensure that rest periods provide sufficient time to enable crew to overcome the effects of the previous duties and to be well rested by the start of the following flight duty period.

(h) Operators shall ensure flight duty periods are planned to enable crew members to remain sufficiently free from fatigue so they can operate to a satisfactory level of safety under all circumstances.

8.12.2.2 CREW MEMBER RESPONSIBILITIES

(a) A crew member shall not operate an aeroplane if he/she knows that he/she is suffering from or is likely to suffer from fatigue or feels unfit, to the extent that the flight may be endangered.

(b) Crew members should make optimum use of the opportunities and facilities for rest provided and plan and use their rest periods properly.

8.12.2.3 RESPONSIBILITIES OF AUTHORITY

(a) The Authority has established the following regulations for the purpose of managing fatigue. These regulations are based upon scientific principles and knowledge, with the aim of ensuring that flight and cabin crew members are performing at an adequate level of alertness.

8.12.2.4 VARIATIONS

(a) The Authority may grant variations to the requirements in this Subpart in accordance with applicable laws and procedures and in consultation with interested parties.

(b) Each operator will have to demonstrate to the Authority, using operational experience and taking into account other relevant factors such as current scientific knowledge, that its request for a variation produces an equivalent level of safety. Such variations will be accompanied with suitable mitigation measures where appropriate.

(c) In deciding to grant a variation the Authority shall take into account all the requirements of this subpart. Such variations should be granted only in isolation or in limited combinations.

8.12.3 FLIGHT PERIODS AND DUTY PERIODS LIMITATIONS

8.12.3.1 CUMULATIVE DUTY HOURS

(a) The operator shall ensure that the total duty periods to which a crew member is assigned do not exceed:

(1) 190 duty hours in any 28 consecutive days, spread as evenly as practicable throughout this period; and

(2) 60 duty hours in any seven (7) consecutive days.

8.12.3.2 CUMULATIVE TOTAL BLOCK HOURS

(a) The operator shall ensure that the total block times of the flights on which an individual crew member is assigned as an operating crew member does not exceed;

(b) 1000 block hours in a calendar year, spread as evenly as practicable throughout the year;

(c) 100 block hours in any 28 consecutive days.

8.12.3.3 MAXIMUM DAILY FLIGHT DUTY PERIOD (FDP)

(a) Except for single-pilot operations and to emergency medical service operations:

(1) the operator shall specify reporting times that realistically reflect the time for safety-related ground duties as approved by the Authority;

(2) The maximum basic daily FDP is 13 hours;

(3) These 13 hours will be reduced by 30 minutes for each sector from the third sector onwards with a maximum total reduction of two hours;

(4) When the FDP starts in the WOCL, the maximum stated in point (2) and point (3) will be reduced by 100 % of its encroachment up to a maximum of two hours. When the FDP ends in or fully encompasses the WOCL, the maximum FDP stated in point (2) and point (3) will be reduced by 50 % of its encroachment. (see IS: 8.12.3.3)

8.12.3.4 EXTENSIONS

(a) The maximum daily FDP can be extended by up to one hour.

(b) Extensions are not allowed for a basic FDP of six sectors or more.

(c) Where an FDP encroaches on the WOCL by up to two hours extensions are limited to up to four sectors.

(d) Where an FDP encroaches on the WOCL by more than two hours extensions are limited to up to two sectors.

(e) The maximum number of extensions is two in any seven consecutive days.

(f) Where an FDP is planned to use an extension pre and post flight minimum rest is increased by two hours or post flight rest only is increased by four hours. Where the extensions are used for consecutive FDPs the pre and post rest between the two operations shall run consecutively.

(g) When an FDP with extension starts in the period 22:00 to 04:59 the operator will limit the FDP to 11:45.

8.12.3.5 CABIN CREW

(a) For cabin crew being assigned to a flight or series of flights, the FDP of the cabin crew may be extended by the difference in reporting time between cabin crew and flight crew, as long as the difference does not exceed one hour.

8.12.3.6 OPERATIONAL ROBUSTNESS

(a) Planned schedules must allow for flights to be completed within the maximum permitted flight duty period. To assist in achieving this, operators will take action to change a schedule or crewing arrangements at the latest where the actual operation exceeds the maximum FDP on more than 33 % of the flights in that schedule during a scheduled seasonal period.

8.12.3.7 NIGHT DUTIES

(a) A crew member may be scheduled for no more than 3 consecutive duties that encroach on the period 01:00 to 06:59 local time within any 7 consecutive days.

8.12.3.8 POSITIONING & TRAVELLING;

(a) All the time spent on positioning is counted as duty.

(b) Positioning after reporting but prior to operating shall be included as part of the FDP but shall not count as a sector.

(c) A positioning sector immediately following operating sector will be taken into account for the calculation of minimum rest as defined in Paragraph 8.12.1.5 (a)(1) and (a)(2).

8.12.3.9 DELAYED REPORTING TIME IN A SINGLE FDP;

(a) When a crew member is informed of a delay to the reporting time due to a changed schedule, before leaving the place of rest and within a maximum of ninety minutes before start of the rostered FDP, the FDP shall be calculated as follows. When the delay is less than 4 hours, the maximum FDP allowed shall be based on the original reporting time and the FDP shall start at the actual report time. Where the delay is 4 hours or more, the maximum FDP shall be based on the more limiting time band of the planned and the actual report time and the FDP starts 4hours after the original report time.

(b) When an operator informs a crew member before leaving the place of rest of a delay in reporting time of 10 hours or more ahead, and that crew member is not further disturbed by the operator until a mutually agreed hour, then that elapsed time is classed as a rest period. If, upon the resumption of duty, further delays occur, then the appropriate criteria in this paragraph and paragraph (1) above shall be applied to the re-arranged reporting time.

8.12.3.10 EXTENDED FDP (SPLIT DUTY);

(a) The Authority may grant approval to an operation based on an extended FDP which includes a break.

(b) Each operator will have to demonstrate to the Authority, using operational experience and taking into account other relevant factors, such as current scientific knowledge, that its request for an extended FDP produces an equivalent level of safety.

(c) Maximum extended FDP with split duty is 21 hours.

8.12.4 DUTY REST PERIODS

8.12.4.1 MINIMUM REST

(a) The minimum rest which must be provided before undertaking a flight duty period starting at home base shall be at least as long as the preceding duty period or 12 hours whichever is the greater;

(b) The minimum rest which must be provided before undertaking a flight duty period starting away from home base shall be at least as long as the preceding duty period or 10 hours whichever is the greater; when on minimum rest away from home base, the operator must allow for an eight hour sleep opportunity taking due account of travelling and other physiological needs;

(c) The operator will ensure that effects on crew members of time zone differences will be compensated by additional rest, as regulated by the Authority.

(d) Notwithstanding 8.12.4.1(a) and 8.12.4.1(b), the Authority may grant reduced rest arrangements. Each operator will have to demonstrate to the Authority, using operational experience and taking

into account other relevant factors, such as current scientific knowledge, that its request for reduced rest arrangements produces an equivalent level of safety.

8.12.4.2 REST PERIODS

(a) The operator shall ensure that the minimum rest provided as outlined above is increased periodically to a weekly rest period, being a 36-hour period including two local nights, such that there shall never be more than 168 hours between the end of one weekly rest period and the start of the next. As an exception, the Authority may decide that the second of those local nights may start from 20:00 hours if the weekly rest period has a duration of at least 40 hours.

8.12.4.3 EXTENSION OF FLIGHT DUTY PERIOD DUE TO IN-FLIGHT REST

(a) Flight Duty Period Extension - Flight Crew Augmentation:

(1) Augmentation 1

(i) On aircraft where the standard crew is only two pilots and is augmented with an additional single qualified flight crew member (see Paragraph 8.10.1.5(b)):

(A) The operator must provide a comfortable reclining seat separated and screened from the flight deck and the passenger.
(B) The maximum FDP is 16 hours irrespective of encroachment of the WOCL.

(2) Augmentation 2

(i) On aircraft where the standard crew is only two pilots and is augmented with an additional single qualified flight crew member (see Paragraph 8.10.1.5(b)):

(A) The operator provides a bunk screened from the flight deck and passengers.
(B) The maximum FDP is 18 hours irrespective of encroachment of the WOCL.

(3) Augmentation 3

(i) On aircraft where the standard crew is only two pilots and is augmented with two additional qualified flight crew member (see Paragraph 8.10.1.5(b)):

(A) The operators must provide bunks separated and screened from the flight deck and passengers.
(B) The maximum FDP is 20 hours irrespective of encroachment of the WOCL.

(b) In all cases where the flight crew are augmented the sharing of time away from task by crew members leaving their posts should be kept in balance. With reference to the provisions of dedicated crew rest facilities, as de-fined in 8.12.4.3 (1), 8.12.4.3 (2) and 8.12.4.3 (3) above, these will be progressively introduced in conjunction with the acquisition of new aircraft types.

(c) Flight Duty Period Extension - Cabin Crew:

(1) An Operator will agree with the authority the legal minimum in-flight rest required by cabin crew member(s) when the FDP goes beyond the limitations of Paragraph 8.12.1.4. The authority must take into account the crew rest facilities provided on board the aircraft in reaching their decision.

(2) Cabin Crew carried in excess of the minimum necessary to meet safety requirements may be counted as augmented crew for the purposes of calculating the maximum permitted FDP and inflight rest requirements. In the case where Cabin Crew are augmented crew members leaving their posts should be kept in balance.

8.12.5 STANDBY, EXTENSION OF FLIGHT DUTY AND UNFORESEEN CIRCUMSTANCES

8.12.5.1 AIRPORT STANDBY

(a) A crew member is on airport standby from reporting at the normal report point until the end of the notified standby period.

(b) Airport standby will count in full for the purposes of cumulative duty hours.

(c) Where airport standby is immediately followed by a flight duty, airport standby shall count for 50% towards the total cumulative duty hours and flight duty period. In such a case, airport standby shall be added to the duty period referred to in Paragraph 8.12.1.5(a)(1) and (a)(2) for the purposes of calculating minimum rest.

(d) Where the airport standby does not lead to assignment on a flight duty, it shall be followed by at least a rest period.

(e) While on airport standby the operator will provide to the crew member a quiet and comfortable place not open to the public.

8.12.5.2 OTHER FORMS OF STANDBY (INCLUDING STANDBY AT HOTEL)

(a) All activity shall be rostered and/or notified at least 12 hours in advance.

(b) Standby duty commences at start of standby period and ends at report time.

(c) The maximum duration of Standby duty will not exceed 12 hours.

(d) Rest period after standby duty is at least equal to period from start of standby to end of Duty Period.

(e) Standby is duty and counts in full towards total cumulative duty hours if not called for duty.

(f) Reserve (Contactable/On-Call): A scheduled period of time during a day, other than a day off, of between 2 and 4 hours between 08:00 and 20:00 local time during which an operator may expect to be able to contact a crew member solely for notification of duty the next day (more than 12 hours in advance). Such periods do not count in cumulative duty totals and are not standby. There are no constraints on crew activity whilst on reserve.

(g) A crew member is on standby from the beginning to the end of the notified standby period or until actual report time for duty having been called during the standby period.

(h) A crew member shall not be contacted to report for a duty which starts more than 2 hours after the end of the standby period.

(i) Airport Standby duty will count in full for the purposes of cumulative duty hours totals.

8.12.5.3 UNFORESEEN CIRCUMSTANCES IN ACTUAL FLIGHT OPERATIONS - PIC DISCRETION

(a) Taking into account the need for careful control of these instances implied underneath, during the actual flight operation, which starts at the reporting time, the limits on flight duty, duty and rest periods prescribed in this Subpart may be modified in the event of unforeseen circumstances. Any such modifications must be acceptable to the commander after consultation with all other crew members and must, in all circumstances, comply with the following:

(1) The maximum FDP referred to in Paragraph 8.12.1.4(a) above may not be increased by more than two hours unless the flight crew has been augmented, in which case the maximum flight duty period may be increased by not more than three hours;

(2) If on the final sector within a FDP unforeseen circumstances occur after take-off that will result in the permitted increase being exceeded, the flight may continue to the planned destination or alternate;

(3) In the event of such circumstances, the rest period following the FDP may be reduced but never below the minimum rest defined in Paragraph 8.12.1.5(a)(2);

(b) The commander shall, in case of special circumstances, which could lead to severe fatigue, and after consultation with the crew members affected, reduce the actual flight duty time and/or increase the rest time in order to eliminate any detrimental effect on flight safety.

(c) The operator shall ensure that:

(1) The commander submits a report to the operator whenever a FDP is increased by his/her discretion or when a rest period is reduced in actual operation; and

(2) Where the increase of a FDP or reduction of a rest period exceeds one hour, a copy of the report, to which the operator must add his comments, is sent to the Authority no later than 28 days after the event.

8.13 FLIGHT RELEASE—COMMERCIAL AIR TRANSPORT

8.13.1.1 APPLICABILITY

(a) This Subpart is applicable to an AOC holder and the person designated by the AOC holder to issue a flight release.

8.13.1.2 QUALIFIED PERSONS REQUIRED FOR OPERATIONAL CONTROL FUNCTIONS

(a) A qualified person shall be designated by the AOC holder to exercise the functions and responsibilities for operational control of each flight in commercial air transport.

(b) For passenger-carrying flights on aircraft types with more than nineteen (19) seats, a licensed and qualified flight operation officer /flight dispatcher shall be on-duty at an operations base to perform the operational control functions;

(c) Operators required to make use of a flight operations officer/flight dispatcher, shall issue an operator dispatcher authorization, as part of the approved method of control and supervision of flight operations. The operator shall require that, as a minimum, such persons meet the

requirements specified in CCAR 2.8.3 for the flight operations officer/flight dispatcher company license.

(d) For all other flights, the Director of Operations and the PIC are the qualified persons exercising operational control responsibilities, and shall be available for consultation before, during and immediately following the flight operation.

(1) The Director of Operations may delegate the functions for initiating, continuation, diversion and termination of a flight to other employees. However, the Direction of Operations shall retain full responsibility for these functions.

(e) For all flights, the PIC shares in the responsibility for operational control of the aircraft and has the situational authority to make decisions regarding operational control issues in-flight.

(1) Where a decision of the PIC differs from that recommended, the person making the recommendation shall make a record of the associated facts.

8.13.1.3 FUNCTIONS ASSOCIATED WITH OPERATIONAL CONTROL

(a) The person exercising responsibility for operational control for an AOC holder shall:

(1) Authorise the specific flight operation;

(2) Ensure that only those operations authorised by the AOC operations specifications are conducted;

(3) Ensure that an airworthy aircraft properly equipped for the flight is available;

(4) Specify the conditions under which a flight may be dispatched or released (weather minimums, flight planning, aircraft loading, and fuel requirements;

(5) Ensure that qualified personnel and adequate facilities are available to support and conduct the flight;

(6) Ensure that crew members are in compliance with the flight and duty time requirements when departing on a flight;

(7) Provide the PIC and other personnel who perform operational control functions with access to the necessary information for the safe conduct of a flight (such as weather, NOTAMS and aerodrome analysis);

(8) Ensure that proper flight planning and preparation is made;

(9) Ensure that flight locating and flight following procedures are followed;

(10) Ensure that each flight has complied with the conditions specified for release before it is allowed to depart;

(11) Ensure that when the conditions specified for a release cannot be met, the flight is either cancelled, delayed, re-routed, or diverted, and

(12) For all flights, ensure the monitoring of the progress of the flight and the provision of information that may be necessary to safety.

Note: See also ICAO Doc 9376, Preparation of an Operations Manual, Chapters 7 and 8.

8.13.1.4 OPERATIONAL CONTROL DUTIES

(a) For all flights, the qualified person performing the duties of a FOO shall be to:

(1) Assist the PIC in flight preparation and provide the relevant information required;

(2) Assist the PIC in preparing the operational and ATC flight plans;

(3) Sign the dispatch copy of the flight release;

(4) Furnish the PIC while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight; and

(5) In the event of an emergency situation which endangers the safety of the aeroplane or persons becomes known first to the FOO/flight dispatcher, action by that persons shall be in accordance with such procedures as outlined in the AOC holder's OM.. Where necessary, immediately notify the appropriate authorities on the nature of the situation, and if required, a request for assistance.

(6) Notify the appropriate ATS unit when the position of the aeroplane cannot be determined by an aircraft tracking capability and attempts to establish communication are unsuccessful

(b) A qualified person performing the operational control duties shall avoid taking any action that would conflict with the procedures established by:

(1) ATC;

(2) The meteorological service;

(3) The communications service; or

(4) AOC holder.

Note: See also ICAO Doc 9376, Preparation of an Operations Manual, Chapters 7 and 8.

8.13.1.5 CONTENTS OF A FLIGHT RELEASE/OPERATIONAL FLIGHT PLAN

(a) The dispatch or flight release/operational flight plan shall contain or have attached at least the following information concerning each flight:

(1) Company or organisation name.

(2) Make, model, and registration number of the aircraft being used.

(3) Flight or trip number, and date of flight.

(4) Name of each flight crew member, cabin crew member, and PIC.

(5) Departure aerodrome, destination aerodromes, alternate aerodromes, and route.

(6) Minimum fuel supply (in gallons or pounds).

(7) A statement of the type of operation (e.g., IFR, VFR).

(8) The latest available weather reports and forecasts for the destination aerodrome and alternate aerodromes.

(9) Any additional available weather information that the PIC considers necessary.

(b) The dispatch or flight release/operational flight plan shall be signed by the PIC and, when applicable, the FOO, and a copy shall be filed with operator or a designated agent. If these

procedures are not possible, it shall be left with the aerodrome authority or on record at a suitable place at the point of departure.

Note: See also ICAO Doc 9376, Preparation of an Operations Manual, Chapters 7.

8.13.1.6 FLIGHT RELEASE—AIRCRAFT REQUIREMENTS

(a) No person may issue a flight release for a commercial air transport operation unless the aircraft is airworthy and properly equipped for the intended flight operation.

(b) No person may issue a flight release for a commercial air transport operation using an aircraft with inoperative instruments and equipment installed, except as specified in the MEL approved for the AOC holder for that type aircraft.

(c) No person may issue a flight release for a commercial air transport operation using an aircraft unless a maintenance release has been issued for that aircraft.

(d) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(e) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.7 FLIGHT RELEASE—FACILITIES AND NOTICES TO AIRMEN

(a) No person may release an aircraft over any route or route segment unless there are adequate communications and navigational facilities in satisfactory operating condition as necessary to conduct the flight safely.

(b) The FOO shall ensure that the PIC is provided all available current reports or information on aerodrome conditions and irregularities of navigation facilities that may affect the safety of the flight.

(c) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been complied with.

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

Note: For his or her review of the operational flight plan, the PIC will be provided with all available NOTAMs with respect to the routing, facilities and aerodromes.

8.13.1.8 FLIGHT RELEASE—WEATHER REPORTS AND FORECASTS

(a) No person may release a flight unless he or she is thoroughly familiar with reported and forecast weather conditions on the route to be flown.

(b) No person may release a flight unless he or she has communicated all information and reservations they may have regarding weather reports and forecasts to the PIC.

(c) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been complied with

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.9 FLIGHT RELEASE – IN ICING CONDITIONS

(a) No person may release an aircraft, when in their opinion or that of the PIC, the icing conditions that may be expected or are met exceed that for which the aircraft is certified and has sufficient operational de-icing or anti-icing equipment.

(b) No person may release an aircraft any time conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless there is available to the PIC at the aerodrome of departure adequate facilities and equipment to accomplish the procedures approved for the AOC holder by the Authority for ground de-icing and anti-icing.

(c) No person may issue a flight release for a commercial air transport operation unless the of 8.13.1.5 of this part for operational flight planning have been complied with.

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

Note: ICAO Doc 9640, Manual of Aircraft Ground De-Icing/Anti-Icing, provides additional guidance.

8.13.1.10 FLIGHT RELEASE — UNDER VISUAL FLIGHT RULES OR INSTRUMENT FLIGHT RULES

(a) No person may release a flight under VFR or IFR unless the weather reports and forecasts indicated that the flight can reasonably be expected to be completed as specified in the release.

8.13.1.11 FLIGHT RELEASE—MINIMUM FUEL SUPPLY

(a) No person may issue a flight release for a commercial air transport operation unless the fuel supply specified in the release is equivalent to or greater than the minimum flight planning requirements of this Part, including anticipated contingencies.

(b) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(c) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.12 FLIGHT RELEASE—AIRCRAFT LOADING AND PERFORMANCE

(a) No person may issue a flight release unless he or she is familiar with the anticipated loading of the aircraft and is reasonably certain that the proposed operation will not exceed the:

(1) CG limits;

(2) Aircraft operating limitations; and

(3) Minimum performance requirements.

(b) No person may issue a flight release for a commercial air transport operation unless any load carried is properly distributed and safely secured.

(c) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.13 FLIGHT RELEASE—AMENDMENT OR RE-RELEASE EN-ROUTE

(a) Each person who amends a flight release while the flight is en-route shall record that amendment.

(b) No person may amend the original flight release to change the destination or alternate aerodrome while the aircraft is en-route unless the flight preparation requirements for routing, aerodrome selection and minimum fuel supply are met at the time of amendment or re-release.

(c) No person may allow a flight to continue to an aerodrome to which it has been released if the weather reports and forecasts indicate changes that would render that aerodrome unsuitable for the original flight release.

(d) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(e) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.14 FLIGHT RELEASE—WITH AIRBORNE WEATHER RADAR EQUIPMENT

(a) No person may release a large aircraft carrying passengers under IFR or night VFR conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar, may reasonably be expected along the route to be flown, unless the airborne weather radar equipment is in satisfactory operating condition.

(b) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(c) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 8—IMPLEMENTING STANDARDS

For ease of reference, the number assigned to each implementing standard corresponds to its associated regulation. For example, IS: 8.2.1.5 would reflect a standard required in Subsection 8.2.1.5.

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PART 8 IMPLEMENTING STANDARDS

IS 8.2.1.8(A) DOCUMENTS TO BE CARRIED ON BOARD AIRCRAFT – ALL OPERATIONS

The agreement summary of an Article 83 bis agreement shall be accessible to a civil aviation safety inspector to determine which functions and duties are transferred under the agreement by the State of Registry to the State of the Operator, when conducting surveillance activities such as ramp checks.

The ARTICLE 83 bis agreement summary form is obtainable at the Authority.

IS 8.5.1.1 GENERAL AVIATION SPECIFIC APPROVALS

Specific approvals shall have a standardised format that contains the minimum information required in the specific approval template.

The General Aviation Specific Approvals agreement summary form is obtainable at the Authority

Note: When the operations to be conducted require a specific approval, a copy of the document(s) shall be carried on board.

IS: 8.7.2.2(B) GENERAL – ROTORCRAFT CLASS 1, 2, AND 3 CODE OF PERFORMANCE

(a) The following guidance material is the basis of the code of helicopter performance referenced in 8.7.2.2 of this part.

(b) DEFINITIONS:

(1) CATEGORY A. With respect to helicopters, means a multi-engined helicopter designed with engine and system isolation features and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off.

(2) CATEGORY B. With respect to helicopters, means a single engine or multi-engined helicopter that does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed.

(c) GENERAL GUIDANCE:

(1) Helicopters operating in performance Classes 1 and 2 shall be certificated in Category A.

(2) Helicopters operating in performance Class 3 shall be certificated in either Category A or Category B (or equivalent).

(3) Except as permitted by the appropriate Authority:

(i) Take-off or landing from/to heliports in a congested hostile environment shall only be conducted in performance Class 1.

(ii) Operations in performance Class 2 shall only be conducted with a safe forced landing capability during take-off and landing.

(iii) Operations in performance Class 3 shall only be conducted in a non-hostile environment.

(4) The Authority may grant a waiver from the provisions of paragraphs (3)(i), (ii), and (iii) of this IS upon receiving a commercial air transport operator's application for waiver and undertaking a risk assessment of the operational conditions proposed, including:

(i) The type of operation and the circumstances of the flight;

(ii) The area/terrain over which the flight is being conducted;

(iii) The probability of a critical engine failure and the consequence of such an event;

(iv) The procedures to maintain the reliability of the engine (s);

(v) The training and operational procedures to mitigate the consequences of the critical engine failure;

(vi) Helicopter equipment; and

(vii) Installation and utilisation of a usage monitoring system.

IS: 8.7.2.3 SINGLE-ENGINE AND MULTI-ENGINE AEROPLANE OPERATIONS

(a) In addition to the requirements in outlined under Subsection 8.7.2.3, an AOC holder seeking approval from the Authority to operate single-engine turbine-powered aeroplanes at night and/or in IMC shall comply with the additional requirements of this implementing standard.

(b) An AOC holder shall not operate single-engine, turbine-powered aeroplanes at night and/or in IMC unless the following airworthiness and operational requirements have been satisfied by the operator and approved by the Authority:

(1) Turbine engine reliability shall be shown to have a power loss rate of less than 1 per 100,000 engine hours.

Note: Power loss in this context is defined as any loss of power, the cause of which may be traced to faulty engine or engine component design or installation, including design or installation of the fuel ancillary or engine control systems.

(c) To minimise the probability of in-flight engine failure, the engine shall be equipped with:

(1) An ignition system that activates automatically, or is capable of being operated manually for take-off and landing, and during flight, in visible moisture;

(2) A magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and

(3) An emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.

(d) SYSTEMS AND EQUIPMENT. Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight and to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions:

(1) Two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required at night and/or in IMC;

(2) A radio altimeter;

(3) An emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to as a minimum:

(i) Maintain the operation of all essential flight instruments, communication and

(ii) navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing;

(iii) Lower the flaps and landing gear, if applicable;

(iv) Provide power to one pitot heater, which shall serve an air speed indicator clearly visible to the pilot;

(v) Provide for operation of the landing light specified in paragraph (d)(10) of this IS;

(vi) Provide for one engine restart, if applicable; and

(vii) Provide for the operation of the radio altimeter;

(4) Two attitude indicators, powered from independent sources;

(5) A means to provide for at least one attempt at engine re-start;

(6) Airborne weather radar;

(7) A certified RNAV system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance information to those locations;

(8) For passenger operations, passenger seats and mounts that meet dynamically-tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat;

(9) In pressurised aeroplanes, sufficient supplemental oxygen for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required;

(10) A landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and

(11) An engine fire warning system.

(e) MINIMUM EQUIPMENT LIST. An AOC holder shall develop an MEL approved by the Authority that is appropriate to the type of single-engine turbine-powered aeroplane operated specifying the operating equipment required for night and/or IMC operations, and for day/VMC operations.

(f) AIRCRAFT FLIGHT MANUAL INFORMATION. The Aircraft Flight Manual shall include limitations, procedures, approval status and other information relevant to operations by single-engine turbine-powered aeroplanes at night and/or in IMC.

(g) EVENT REPORTING. An AOC holder operating turbine-powered aeroplanes at night and/or in IMC shall report all significant failures, malfunctions or defects to the Authority who in turn will notify the State of Design.

(h) OPERATOR PLANNING. Each AOC holder operating single-engine turbine-powered aeroplanes at night and/or in IMC shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following:

(1) The nature of the terrain to be overflown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;

(2) Weather information, including seasonal and other adverse meteorological influences that may affect the flight; and

(3) Other criteria and limitations as specified by the Authority.

(i) Each AOC holder shall identify aerodromes or safe forced landing areas available for use in the event of engine failure and the position of these shall be programmed into the RNAV system.

Note 1: A 'safe' forced landing in this context means a landing in an area in which it can reasonably be expected that it will not lead to serious injury or loss of life, even though the aeroplane may incur extensive damage.

Note 2: Operation over routes and in weather conditions that permit a safe forced landing in the event of an engine failure, as specified in paragraph 8.8.1.31(a) of this part is not required for aeroplanes approved in accordance with paragraph 8.8.1.31(b)(1) of this part. The availability of forced landing areas at all points along a route is not specified for these aeroplanes because of the very high engine reliability, additional systems and operational equipment, procedures, and training requirements specified in IS 8.7.2.3.

(j) FLIGHT CREW EXPERIENCE, TRAINING AND CHECKING.

(1) No person may serve as, and no AOC holder shall use a flight crew member in single-engine turbine-powered aeroplanes engaged in commercial air transport unless he or she has completed the appropriate flight crew member training as specified in this Part and approved by the Authority.

(2) The AOC holder's approved flight crew training and checking shall be appropriate to night and/or IMC operations by single engine turbine-powered aeroplanes, covering normal, abnormal and emergency procedures and, in particular, engine failure, including descent to a forced landing in night and/or in IMC conditions.

(k) ROUTE LIMITATIONS OVER WATER.

(1) An AOC holder shall not conduct over water operations using single-engine turbine-powered aeroplanes operating at night and/or in IMC except in areas of operation or over specific routes identified in the AOC holder's operations specifications.

(2) No AOC holder may conduct over water operations using single-engine turbine-powered aeroplanes operating at night and/or in IMC except in accordance with procedures approved by the Authority in the AOC holder's OM for over water operations covering flight beyond

gliding distance from an area suitable for a safe forced landing/ditching having regard to the characteristics of the aeroplane, seasonal weather influences, including likely sea state and temperature, and the availability of search and rescue services.

(l) OPERATOR CERTIFICATION OR VALIDATION.

(1) An AOC holder applying for operations specifications granting authorisation to conduct single-engine turbine-powered aeroplane operations at night and/or in IMC shall demonstrate to the Authority, consistent with Part 9 of these regulations, the ability to conduct operations by single-engine turbine-powered aeroplanes at night and/or in IMC through a certification and approval process specified by the Authority.

IS: 8.8.1.7 INSTRUMENT APPROACH OPERATING MINIMA

(a) Each operator establishing aerodrome-operating minima shall have its method for determining such minima approved by the Authority.

(b) Each operator's method for determining aerodrome-operating minima shall accurately account for:

(1) The type, performance and handling characteristics of the aircraft;

(2) Any conditions or limitations stated in the flight manual;

(3) The composition, competence, and experience of the flight crew;

(4) The dimensions and characteristics of the runways selected for use;

(5) The adequacy and performance of the available visual and non-visual ground aids;

(6) Aircraft equipment used for navigation, acquisition of visual references, and/or aircraft control during the approach, landing, and missed approach;

(7) Obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the intended IAPs;

(8) The means used to determine and report meteorological conditions; and

(9) The obstacles in the climb out areas and the necessary clearance margins;

(10) The conditions prescribed in the operations specifications;

(11) Any minima that may be promulgated by the State of the Aerodrome; and

(12) The declared distances, for helicopters.

IS: 8.8.1.9 CATEGORY II AND CATEGORY III MANUAL

(a) APPLICATION FOR APPROVAL. An applicant for approval of a CAT II or CAT III manual or an amendment to an approved CAT II or CAT III manual shall submit the proposed manual or amendment to the Authority. If the application requests an evaluation programme, it shall include the following:

(1) The location of the aircraft and the place where the demonstrations are to be conducted; and

(2) The date the demonstrations are to commence (at least 10 days after filing the application).

(b) CONTENTS. Each CAT II or CAT III manual shall contain:

(1) The registration mark, make and model of the aircraft to which it applies.

(2) A maintenance programme; and

(3) The procedures and instructions related to the recognition of DH, the use of RVR information, approach monitoring, the decision region (the region between the middle marker and the DH), the maximum permissible deviations of the basic ILS indicator within the decision region, a missed approach, the use of airborne low approach equipment, minimum altitude for the use of the autopilot, instrument and equipment failure warning systems, instrument failure, and other procedures, instructions, and limitations that may be found necessary by the Authority.

Note 1: CAT II approval is required prior to obtaining CAT III approval.

Note 2: ICAO Doc 9365, Manual of All-Weather Operations, provides additional guidance.

IS: 8.8.1.28 INTERCEPTION OF CIVIL AIRCRAFT

(a) Curaçao shall observe the following principles regarding the interception of civil aircraft.

(1) Interception of civil aircraft will be undertaken only as a last resort.

(2) If undertaken, an interception will be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome.

(3) Practice interception of civil aircraft will not be undertaken.

(4) Navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established.

(5) In the case where an intercepted civil aircraft is required to land in the territory overflown, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned.

Note: In the unanimous adoption by the 25th Session (Extraordinary) of the ICAO Assembly on 10 May 1984 of Article 3 bis to the Chicago Convention, the Contracting States have recognised that "every State must refrain from resorting to the use of weapons against civil aircraft in flight."

(b) Curaçao shall ensure that:

(1) A standard method has been established and made available to the public for the manoeuvring of aircraft intercepting a civil aircraft that is designed to avoid any hazard for the intercepted aircraft.

(2) Provision is made for the use of SSR or ADS-B, where available, to identify civil aircraft in areas where they may be subject to interception.

(c) The PIC of an aircraft that is intercepted by another aircraft shall immediately:

(1) Follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in paragraph (e) of this IS

(2) Notify, if possible, the appropriate ATS unit.

(3) Attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no

contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz.

(4) If equipped with an SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate ATS unit.

(5) If equipped with ADS-B or ADS-C, select the appropriate emergency functionality, if available, unless otherwise instructed by the appropriate air traffic services unit.

(d) If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the PIC of the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

(e) If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the PIC of the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

(f) RADIO COMMUNICATION DURING INTERCEPTION. If radio contact is established during interception but communication in a common language is not possible, the PIC of each involved aircraft shall attempt to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table 1 of this IS and transmitting each phrase twice:

Table 1. Phrases and Pronunciations

Phrases for use by INTERCEPTING Aircraft			Phrases for use by INTERCEPTED Aircraft		
Phrase	**Pronunciation [1]**	**Meaning**	**Phrase**	**Pronunciation [1]**	**Meaning**
CALL SIGN	KOL SA-IN	What is your call sign?	CALL SIGN (call sign)[2]	KOL SA-IN (call sign)	My call sign is (call sign)
FOLLOW	FOL-LO	Follow me	WILCO	VILL-KO	Understood Will comply
DESCEND	DEE-SEND	Descend for landing	CAN NOT	KANN NOTT	Unable to comply
YOU LAND	YOU LAAND	Land at this aerodrome	REPEAT	REE-PEET	Repeat your instruction
PROCEED	PRO-SEED	You may proceed	AM LOST	AM LOSST	Position unknown
			MAYDAY	MAYDAY	I am in distress
			HIJACK[3]	HI-JACK	I have been hijacked
			LAND (place name)	LAAND (place name)	I request to land at (place name)
			DESCEND	DEE-SEND	I require descent

Notes:

1. *In the second column, syllables to be emphasised are underlined.*
2. *The call sign required to be given is that used in radiotelephone communications with ATS units and corresponding to the aircraft identification in the flight plan.*
3. *Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK."*

The signals in Table 2 of this IS shall be used by the pilots of each involved aircraft in the event of interception. Signals initiated by intercepting aircraft and responses by intercepted aircraft.

Table 2. Signals Initiated by Intercepting Aircraft and Responses by Intercepted Aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	DAY or NIGHT – Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading. *Note 1: Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.* *Note 2: If the intercepting aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of racetrack patterns and to rock the aircraft each time it passes the intercepted aircraft.*	You have been intercepted. Follow me.	DAY or NIGHT – Rocking aircraft, flashing navigational lights at irregular intervals, and following.	Understood, will comply.
2	DAY or NIGHT – An abrupt breakaway manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT – Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights, and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover hear to the landing area.	Land at this aerodrome.	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights, and following the intercepting aircraft and, if, after overflying the runway in use or the helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

Table 3. Signals Initiated by Intercepted Aircraft and Responses by Intercepting Aircraft

Series	INTERCEPTED Aircraft Signales	Meaning	INTERCEPTING Aircraft Response	Meaning
4	DAY or NIGHT – Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1 000 ft) but not exceeding 600 m (2 000 ft) (in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT – If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, follow me. Understood, you may proceed.
5	DAY or NIGHT – Regular switching on and off of all available lights, but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT – Irregular flashing of all available lights.	In distress.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.

IS 8.8.1.33 REMOTELY PILOTED AIRCRAFT

The form for approval to operate an RPA within Curacao is obtainable at the Authority

IS: 8.8.2.11 UNIVERSAL AVIATION SIGNALS

(a) Distress signals. The following signals, used either together or separately, mean that grave and imminent danger threatens, and immediate assistance is requested:

Note: None of the provisions in this section shall prevent the use, by an aircraft in distress, of any means at its disposal to attract attention, make known its position and obtain help.

Note 2: For full details of telecommunication transmission procedures for the distress and urgency signals, see ICAO Annex 10, Volume II, Chapter 5.

Note 3: For details of the search and rescue visual signals, see ICAO Annex 12.

(1) A signal made by radiotelegraphy or by any other signalling method consisting of the group SOS (• • • — — — • • •) in the Morse Code.

(2) A signal sent by radiotelephony consisting of the spoken word MAYDAY.

(3) Rockets or shells throwing red lights, fired one at a time at short intervals; and

(4) A parachute flare showing a red light.

Note: Article 41 of the ITU Radio Regulations (Nos. 3268, 3270, and 3271 refer) provides information on the alarm signals for actuating radiotelegraph and radiotelephone auto-alarm systems:

- 3268 The radiotelegraph alarm signal consists of a series of 12 dashes sent in 1 minute, the duration of each dash being 4 seconds and the duration of the interval between consecutive dashes 1 second. It may be transmitted by hand, but its transmission by means of an automatic instrument is recommended.
- 3270 The radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2 200 Hz and the other a frequency of 1 300 Hz, the duration of each tone being 250 milliseconds.
- 3271 The radiotelephone alarm signal, when generated by automatic means, shall be sent continuously for a period of at least 30 seconds but not exceeding 1 minute; when generated by other means, the signal shall be sent as continuously as practicable over a period of approximately 1 minute.

(b) The following signals, used either together or separately, mean that an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance:

(1) The repeated switching on and off of the landing lights; or

(2) The repeated switching on and off of the navigation lights in such manner as to be distinct from flashing navigation lights.

(c) The following signals, used either together or separately, mean that an aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or of some person on board or within sight:

(1) A signal made by radiotelegraphy or by any other signalling method consisting of the group XXX;

(2) A signal sent by radiotelephony consisting of the spoken words PAN, PAN; or

(3) An urgency message sent via data link which transmits the intent of the words PAN, PAN.

(d) VISUAL SIGNALS USED TO WARN AN UNAUTHORISED AIRCRAFT. By day and by night, a series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars will indicate to an unauthorised aircraft that it is flying in or about to enter a restricted, prohibited, or danger area, and that the aircraft is to take such remedial action as may be necessary.

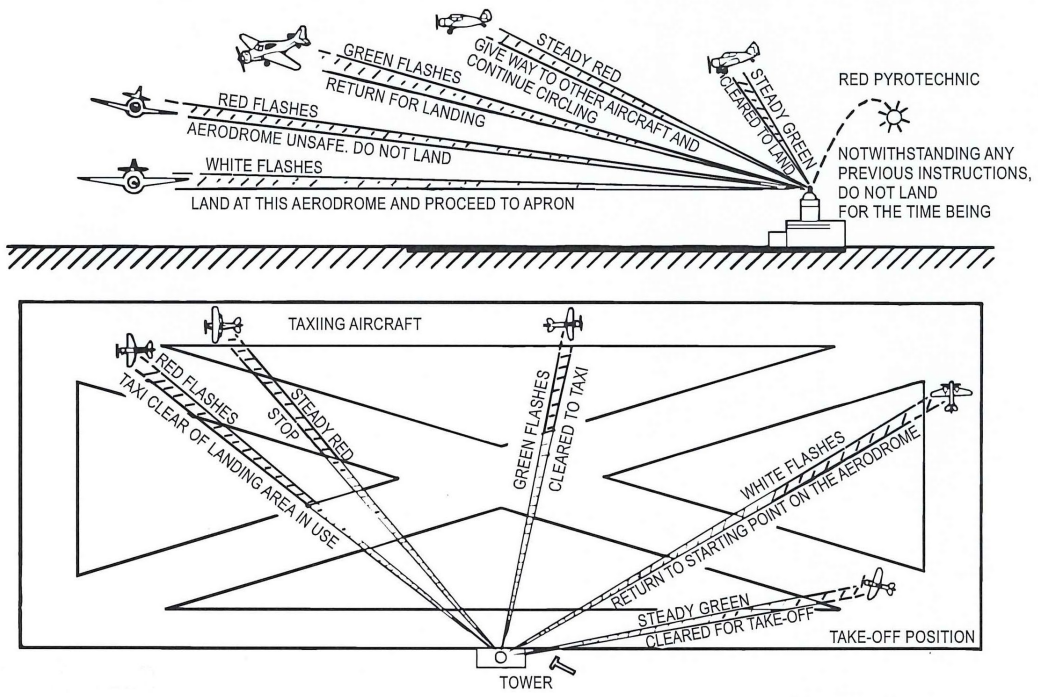
(e) SIGNALS FOR AERODROME TRAFFIC. Aerodrome controllers shall use and pilots shall obey the following light and pyrotechnic signals:

Table 4. Light and Pyrotechnic Signals

Light		From Aerodrome Control to:	
		Aircraft in Flight	**Aircraft on the Ground**
Directed towards aircraft concerned (See Figure 1)	Steady green	Cleared to land	Cleared for take-off
	Steady red	Give way to other aircraft and continue circling	Stop
	Series of green flashes	Return for landing*	Cleared to taxi
	Series of red flashes	Aerodrome unsafe, do not land	Taxi clear of landing area in use
	Series of white flashes	Land at this aerodrome and proceed to ramp*	Return to starting point on the aerodrome
	Red pyrotechnic	Notwithstanding any previous instructions, do not land for the time being	

* Clearances to land and to taxi will be given in due course.

Figure 1.



(f) Pilots shall acknowledge aerodrome controller signals as follows:

(1) When in flight:

(i) During the hours of daylight by rocking the aircraft's wings; and

Note: This signal should not be expected on the base and final legs of the approach.

(ii) During the hours of darkness by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

(g) When on the ground:

(1) During the hours of daylight by moving the aircraft's ailerons or rudder; and

(2) During the hours of darkness by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

(h) Aerodrome authorities shall use the following visual ground signals during the following situations:

(1) PROHIBITION OF LANDING. A horizontal red square panel with yellow diagonals (Figure 2) when displayed in a signal area indicates that landings are prohibited and that the prohibition is liable to be prolonged.

Figure 2.



(2) NEED FOR SPECIAL PRECAUTIONS WHILE APPROACHING OR LANDING. A horizontal red square panel with one yellow diagonal (Figure 3) when displayed in a signal area indicates that owing to the bad state of the manoeuvring area, or for any other reason, special precautions shall be observed in approaching to land or in landing.

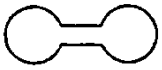
Figure 3.



(3) USE OF RUNWAYS AND TAXIWAYS.

A horizontal white dumb-bell (Figure 4) when displayed in a signal area indicates that aircraft are required to land, take-off and taxi on runways and taxiways only.

Figure 4.



(4) The same horizontal white dumb-bell as in Figure 4, but with a black bar placed perpendicular to the shaft across each circular portion of the dumb-bell (Figure 5) when displayed in a signal area indicates that aircraft are required to land and take-off on runways only, but other manoeuvres need not be confined to runways and taxiways.

Figure 5.



(5) CLOSED RUNWAYS AND TAXIWAYS. Crosses of a single contrasting colour, yellow or white (Figure 6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft.

Figure 6.

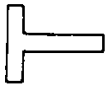


(6) DIRECTIONS FOR LANDING OR TAKE-OFF.

A horizontal white or orange landing T (Figure 7) indicates the direction to be used by aircraft for landing and rake-off, which shall be in a direction parallel to the shaft of the T towards the cross arm.

Note: When used at night, the landing T is either illuminated or outlined in white lights.

Figure 7.



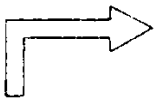
(7) A set of two digits (Figure 8) displayed vertically at or near the aerodrome control tower indicates to aircraft on the manoeuvring area the direction for take-off, expressed in units of 10 degrees to the nearest 10 degrees of the magnetic compass.

Figure 8.



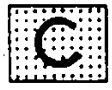
(8) RIGHT-HAND TRAFFIC. When displayed in a signal area, or horizontally at the end of the runway or strip in use, a right-hand arrow of conspicuous colour (Figure 9) indicates that turns are to be made to the right before landing and after take-off.

Figure 9.



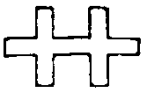
(9) AIR TRAFFIC SERVICES REPORTING OFFICE. The letter C displayed vertically in black against a yellow background (Figure 10) indicates the location of the ATS services reporting office.

Figure 10.



(10) GLIDER FLIGHTS IN OPERATION. A double white cross displayed horizontally (Figure 8.11) in the signal area indicates that the aerodrome is being used by gliders and that glider flights are being performed.

Figure 11.



(i) The following marshalling signals shall be used from a signalman to an aircraft.

(1) For heavier-than-air aircraft, the signalman shall be positioned forward of the left-wing tip within view of the pilot and, for helicopters, where the signalman can best be seen by the pilot.

Note 1: Note: These signals are designed for use by the signalman, with hands illuminated as necessary to facilitate observation by the pilot, and facing the aircraft in a position.

Note 2: The meaning of the relevant signals remains the same if bats, illuminated wands or torchlights are held.

Note 3: The aircraft engines are numbered, for the signalman facing the aircraft, from right to left (i.e. No. 1 engine being the port outer engine).

Note 4: Signals marked with an asterisk are designed for use to hovering helicopters.

Note 5: References to wands may also be read to refer to daylight-fluorescent table-tennis bats or gloves (daytime only).

Note 6: References to the signalman may also be read to refer to marshaller.

(2) Prior to using the following signals, the signalman shall ascertain that the area within which an aircraft is to be guided is clear of objects which the aircraft might otherwise strike.

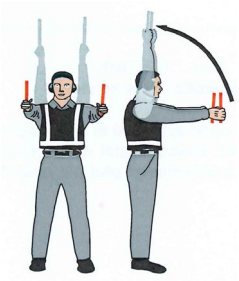
Note: The design of many aircraft is such that the path of the wing tips, engines and other extremities cannot always be monitored visually from the flight deck while the aircraft is being manoeuvred on the ground.



1. Wingwalker/guide.

Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body.

Note: This signal provides an indication by a person positioned at the aircraft wing tip to the pilot/ marshaller/ push-back operator that the aircraft movement on/off a parking position would be unobstructed.



2. Identify gate

Raise fully extended arms straight above head with wands pointing up.



3. Proceed to next signalman or as directed by tower/ground control

Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman or taxi area.



4. Straight ahead

Bend extended arms at elbows and move wands up and down from chest height to head.



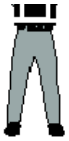
5 a). Turn left (from pilot's point of view)

:h right arm and wand extended at a 90-degree angle to dy, make "come ahead" signal with left hand. The rate of nal motion indicates to pilot the rate of aircraft turn.



). Turn right (from pilot's point of view)

:h left arm and wand extended at a 90-degree angle to dy, make "come ahead" signal with right hand. The rate of nal motion indicates to pilot the rate of aircraft turn.



6 a). Normal stop

Fully extend arms and wands at a 90-degree angle to sides d slowly move to above head until wands cross.



6 b). Emergency stop

Abruptly extend arms and wands to top of head, crossing wands.



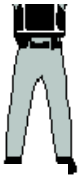
7 a). Set brakes

Raise hand just above shoulder height with open palm. Ensuring eye contact with flight crew, close hand into a fist. Do not move until receipt of “thumbs up” acknowledgement from flight crew.



7 b). Release brakes

Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with flight crew, open palm. Do not move until receipt of “thumbs up” acknowledgement from flight crew



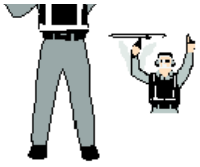
8 a). Chocks inserted

With arms and wands fully extended above head, move wands inward in a “jabbing” motion until wands touch. Ensure acknowledgement is received from flight crew.



8 b). Chocks removed

With arms and wands fully extended above head, move wands outward in a “jabbing” motion. Do not remove chocks until authorised by flight crew.



9. Start engine(s)

Raise right arm to head level with wand pointing up and start a lar motion with hand; at the same time, with left arm d above head level, point to engine to be started.



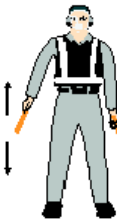
10. Cut engines

Extend arm with wand forward of body at shoulder level; move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat.



11. Slow down

Move extended arms downwards in a “patting” gesture, moving wands up and down from waist to knees.



12. Slow down engine(s) on indicated side

With arms down and wands toward ground, wave either right or left wand up and down indicating engine(s) on left or right side respectively should be slowed down.

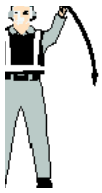
13. Move back

With arms in front of body at waist height, rotate arms in a forward motion. To stop rearward movement, use signal 6 a) or 6 b).



14 a). Turns while backing (for tail to starboard)

Point left arm with wand down and bring right arm from overhead vertical position to horizontal forward position, repeating right-arm movement.



14 b). Turns while backing (for tail to port)

Point right arm with wand down and bring left arm from overhead vertical position to horizontal forward position, repeating left-arm movement.



Affirmative/all clear

ise right arm to head level with wand pointing up or display
ıd with “thumbs up”; left arm remains at side by knee.

*te: This signal is also used as a technical/servicing
nmunication signal.*



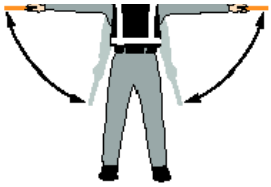
Hover

/ extend arms and wands at a 90-degree angle to sides.



***17. Move upward**

Fully extend arms and wands at a 90-degree angle to sides and, with palms turned up, move hands upward. Speed of movement indicates rate of ascent.



***18. Move downward**

lly extend arms and wands at a 90-degree angle to sides
d, with palms turned down, move hands downward. Speed
movement indicates rate of descent.



***19 a). Move horizontally left (from pilot’s point of view)**

Extend arm horizontally at a 90-degree angle to right side of body. Move other arm in same direction in a sweeping motion.



***19 b). Move horizontally right (from pilot’s point of view)**

Extend arm horizontally at a 90-degree angle to left side of body. Move other arm in same direction in a sweeping motion.

***20. Land**

Cross arms with wands downwards and in front of body.



21. Fire

ve right-hand wand in a “fanning” motion from shoulder to
e, while at the same time pointing with left-hand wand to
a of fire.



22. Hold position/stand by

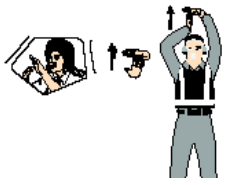
Fully extend arms and wands downwards at a 45-degree angle to sides. Hold position until aircraft is clear for next manoeuvre.

23. Dispatch aircraft

Perform a standard salute with right hand and/or wand to dispatch the aircraft. Maintain eye contact with flight crew until aircraft has begun to taxi.

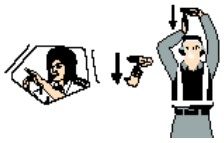
24. Do not touch controls (technical/servicing communication signal)

Extend right arm fully above head and close fist or hold wand in horizontal position; left arm remains at side by knee.



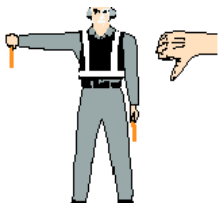
. Connect ground power (technical/servicing mmunication signal)

ld arms fully extended above head; open left hand rizontally and move finger tips of right hand into and touch en palm of left hand (forming a “T”). At night, illuminated wands can also be used to form the “T” above head.



. Disconnect power (technical/servicing mmunication signal)

ld arms fully extended above head with finger tips of right nd touching open horizontal palm of left hand (forming a "T"); then move right hand away from the left. Do not disconnect power until authorised by flight crew. At night, illuminated wands can also be used to form the "T" above head.



27. Negative (technical/servicing communication gnal)

ld right arm straight out at 90 degrees from shoulder and int wand down to ground or display hand with "thumbs wn"; left hand remains at side by knee.



28. Establish communication via interphone (technical/servicing communication signal)

Extend both arms at 90 degrees from body and move hands to cup both ears.



29. Open/close stairs (technical/servicing communication signal)

With right arm at side and left arm raised above head at a 45-degree angle, move right arm in a sweeping motion towards top of left shoulder.

Note: This signal is intended mainly for aircraft with the set of integral stairs at the front.

(j) SIGNALS FROM THE PILOT OF AN AIRCRAFT TO A SIGNALMAN.

(1) The PIC or CP shall use the following signals when communicating with a signalman:

Note 1: These signals are designed for use by a pilot on the flight deck with hands plainly visible to the signalman, and illuminated as necessary to facilitate observation by the signalman.

Note 2: The aircraft engines are numbered in relation to the signalman facing the aircraft, from right to (e.g., No. 1 engine being the port outer engine).

(i) BRAKES ENGAGED: Raise arm and hand, with fingers extended, horizontally in front of face, then clench fist.

(ii) BRAKES RELEASED. Raise arm, with fist clenched, horizontally in front of face, then extend fingers.

Note: The moment the fist is clenched or the fingers are extended indicates, respectively, the moment of brake engagement or release.

(iii) INSERT CHOCKS: Arms extended, palms outward, move hands inward to cross in front of face.

(iv) REMOVE CHOCKS: Hands crossed in front of face, palms outward, move arms outward.

(v) READY TO START ENGINE(S). Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.

IS 8.8.3.4 TABLES OF CRUISING LEVELS

(a) The cruising levels at which a flight or a portion of a flight is to be conducted shall be in terms of:

(1) FLs, for flights at or above the lowest usable FL or, where applicable, above the transition altitude; and

(2) Altitude, for flights below the lowest usable FL or, where applicable, at or below the transition altitude.

(b) The PIC shall observe the following cruising levels in areas where, on the basis of Regional Air Navigation Agreements and in accordance with conditions specified therein, a VSM of 300 m (1,000 ft) is applied between FL 290 and FL 410 inclusive:*

TRACK*												
From 000 Degrees to 179 Degrees**						***From 180 Degrees to 359 Degrees*****					
IFR Flights			***VFR Flights***			***IFR Flights***			***VFR Flights***		
FL	*Level Metres*	*Feet*	*FL*	*Level Metres*	*Feet*	*FL*	*Level Metres*	*Feet*	*FL*	*Level Metres*	*Feet*
010	*300*	*1000*	—	—	—	*020*	*600*	*2000*	—	—	—
030	*900*	*3000*	*035*	*1050*	*3500*	*040*	*1200*	*4000*	*045*	*1350*	*4500*
050	*1500*	*5000*	*055*	*1700*	*5500*	*060*	*1850*	*6000*	*065*	*2000*	*6500*
070	*2150*	*7000*	*075*	*2300*	*7500*	*080*	*2450*	*8000*	*085*	*2600*	*8500*
090	*2750*	*9000*	*095*	*2900*	*9500*	*100*	*3050*	*10000*	*105*	*3200*	*10500*
110	*3350*	*11000*	*115*	*3500*	*11500*	*120*	*3650*	*12000*	*125*	*3800*	*12500*
130	*3950*	*13000*	*135*	*4100*	*13500*	*140*	*4250*	*14000*	*145*	*4400*	*14500*
150	*4550*	*15000*	*155*	*4700*	*15500*	*160*	*4900*	*16000*	*165*	*5050*	*16500*
170	*5200*	*17000*	*175*	*5350*	*17500*	*180*	*5500*	*18000*	*185*	*5650*	*18500*
190	*5800*	*19000*	*195*	*5950*	*19500*	*200*	*6100*	*20000*	*205*	*6250*	*20500*
210	*6400*	*21000*	*215*	*6550*	*21500*	*220*	*6700*	*22000*	*225*	*6850*	*22500*
230	*7000*	*23000*	*235*	*7150*	*23500*	*240*	*7300*	*24000*	*245*	*7450*	*24500*
250	*7600*	*25000*	*255*	*7750*	*25500*	*260*	*7900*	*26000*	*265*	*8100*	*26500*
270	*8250*	*27000*	*275*	*8400*	*27500*	*280*	*8550*	*28000*	*285*	*8700*	*28500*
290	*8850*	*29000*				*300*	*9150*	*30000*			
310	*9450*	*31000*				*320*	*9750*	*32000*			
330	*10050*	*33000*				*340*	*10350*	*34000*			
350	*10650*	*35000*				*360*	*10950*	*36000*			
370	*11300*	*37000*				*380*	*11600*	*38000*			
390	*11 900*	*39 000*				*400*	*12200*	*40000*			
410	*12500*	*41000*				*430*	*13100*	*43000*			
450	*13700*	*45000*				*470*	*14350*	*47000*			

490	*14950*	*49000*		*510*	*15550*	*51000*
etc.	*etc.*	*etc.*		*etc.*	*etc.*	*etc.*

* *Except when, on the basis of Regional Air Navigation Agreements, a modified table of cruising levels based on a nominal VSM of 300 m (1,000 ft) is prescribed for use, under specified conditions, by aircraft operating above FL 410 within designated portions of the airspace.*

** *Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.*

*** *Except where, on the basis of Regional Air Navigation Agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.*

The PIC shall observe the following cruising levels in other areas not specified in paragraph (a) of this IS.

*TRACK**											
From 000 Degrees to 179 Degrees*						***From 180 Degrees to 359 Degrees****					
IFR Flights			***VFR Flights***			***IFR Flights***			***VFR Flights***		
	Level			*Level*			*Level*			*Level*	
FL	*Metres*	*Feet*	*FL*	*Metres*	*Feet*	*FL*	*Metres*	*Feet*	*FL*	*Metres*	*Feet*
010	*300*	*1000*	—	—	—	*020*	*600*	*2000*	—	—	—
030	*900*	*3000*	*035*	*1050*	*3500*	*040*	*1200*	*4000*	*045*	*1350*	*4500*
050	*1500*	*5000*	*055*	*1700*	*5500*	*060*	*1850*	*6000*	*065*	*2000*	*6500*
070	*2150*	*7000*	*075*	*2300*	*7500*	*050*	*2450*	*8000*	*085*	*2600*	*8500*
090	*2750*	*9000*	*095*	*2900*	*9500*	*100*	*3050*	*10000*	*105*	*3200*	*10500*
110	*3350*	*11000*	*115*	*3500*	*11500*	*120*	*3650*	*12000*	*125*	*3800*	*12500*
130	*3950*	*13000*	*135*	*4100*	*13500*	*140*	*4250*	*14000*	*145*	*4400*	*14500*
150	*4550*	*15000*	*155*	*4700*	*15500*	*160*	*4900*	*16000*	*165*	*5050*	*16500*
170	*5200*	*17000*	*175*	*5300*	*17500*	*180*	*5500*	*18000*	*185*	*5650*	*18500*
190	*5800*	*19000*	*195*	*950*	*19500*	*200*	*6100*	*20000*	*205*	*6250*	*20500*
210	*6400*	*21000*	*215*	*6550*	*21500*	*220*	*6700*	*22000*	*225*	*6850*	*22500*
230	*7000*	*23000*	*235*	*7150*	*23500*	*240*	*7300*	*24000*	*245*	*7450*	*24500*
250	*7600*	*25000*	*255*	*7750*	*25500*	*260*	*7900*	*26000*	*265*	*8100*	*26500*
270	*8250*	*27000*	*275*	*8100*	*27500*	*280*	*8550*	*28000*	*285*	*8700*	*28500*
290	*8850*	*29000*	*300*	*9150*	*30000*	*310*	*9450*	*31000*	*320*	*9750*	*32000*
330	*10050*	*33000*	*340*	*10350*	*34000*	*350*	*10650*	*35000*	*360*	*10950*	*36000*
370	*11300*	*37000*	*380*	*11600*	*38000*	*390*	*11900*	*39000*	*400*	*12200*	*40000*
410	*12500*	*41000*	*420*	*12500*	*42000*	*430*	*13100*	*43000*	*440*	*13400*	*44000*
450	*13700*	*45000*	*460*	*14000*	*46000*	*470*	*14350*	*47000*	*480*	*14650*	*48000*
490	*14950*	*49000*	*500*	*15250*	*50000*	*510*	*15550*	*51000*	*520*	*15850*	*52000*
etc.	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*

**Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.*

***Except where, on the basis of Regional Air Navigation Agreements,, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.*

Note 1: ICAO Doc 9574, Manual on the Implementation of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive, contains guidance material relating to vertical separation.

Note 2: ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), contains guidance for the system of FLs.

IS 8.10.1.9 COMPANY PROCEDURES INDOCTRINATION

(a) Each AOC holder shall ensure that all operations personnel are provided company indoctrination training that covers the following areas:

(1) AOC holder's organisation, scope of operation, and administrative practices as applicable to their assignments and duties.

(2) Appropriate provisions of these regulations and other applicable regulations and guidance materials.

(3) Contents of the AOC holder's certificate and operations specifications (not required for cabin crew).
(4) AOC holder policies and procedures.
(5) Crew member and FOO duties and responsibilities.
(6) AOC holder testing programme for alcohol and narcotic psychoactive substances.
(7) Applicable crew member manuals.
(8) Appropriate portions of the AOC holder's OM

IS 8.10.1.10 INITIAL OR RECURRENT DANGEROUS GOODS GROUND TRAINING REQUIREMENTS

The following categories of individuals shall be trained in dangerous goods.

Category Number	Employee description
1	Shippers and persons understanding the responsibilities of shippers
2	Packers
3	Personnel of freight forwarders involved in processing dangerous goods
4	Personnel of freight forwarders involved in processing cargo or mail (other than dangerous goods)
5	Personnel of freight forwarders involved in the handling, storage and loading of cargo or mail
6	Operator's and ground handling agent's personnel accepting dangerous goods
7	Operator's and ground handling agent's personnel accepting cargo or mail (other than dangerous goods)
8	Operator's and ground handling agent's personnel involved in the handling, storage and loading of cargo or mail and baggage
9	Passenger handling personnel
10	Flight crew members, loadmasters, load planners and FOOs/flight dispatchers
11	Crew members (other than flight crew members)
12	Security personnel who are involved with the screening of passengers and crew and their baggage and cargo or mail, e.g. security screeners, their supervisors and personnel involved in implementing security procedures
13	Operator's and ground handling agent's personnel accepting cargo or mail (other than dangerous goods)
14	Operator's and ground handling agent's personnel involved in the handling, storage and loading of cargo or mail (other than dangerous goods) and baggage
15	Passenger handling personnel
16	Flight crew members, loadmasters, load planners and FOOs/flight dispatchers
17	Crew members (other than flight crew members)

Training courses for entities shipping dangerous goods shall contain the following:

	Shippers and Packers		**Freight Forwarders**			**Operators and Ground Handling Agents**						**Security Personnel**
	Categories of Personnel											
Aspects of transport of dangerous goods by air with which they shall be familiar, as a minimum	1	2	3	4	5	6	7	8	9	10	11	12
General philosophy	X	X	X	X	X	X	X	X	X	X	X	X
Limitations	X		X	X	X	X	X	X	X	X	X	X
General requirements for shippers	X		X			X						
Classification	X	X	X			X						X
List of dangerous goods	X	X	X			X				X		
Packing requirements	X	X	X			X						
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X
Dangerous goods transport document and other relevant documentation	X		X	X		X	X					
Acceptance procedures						X						
Recognition of undeclared dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X
Storage and loading procedure					X	X		X		X		
Pilots' notification						X		X		X		
Provisions for passengers and crew	X	X	X	X	X	X	X	X	X	X	X	X
Emergency procedures	X	X	X	X	X	X	X	X	X	X	X	X

Training courses for operators not carrying dangerous goods as cargo or mail shall contain the following:

Contents	Categories of Personnel				
	13	14	15	16	17
General philosophy	X	X	X	X	X
Limitations	X	X	X	X	X
Labelling and marking					
Dangerous goods transport document and other relevant documentation	X				
Recognition of undeclared dangerous goods	X	X	X	X	X
Provisions for passengers and crew	X	X	X	X	X
Emergency procedures	X	X	X	X	X

Note 1: Depending on the responsibilities of the person, the aspects of training to be covered may vary from those shown in the tables above. For example, with respect to classification, personnel involved in implementing security procedures (e.g. screeners and their supervisors) need only be trained in the general properties of dangerous goods.

Note 2: The categories of personnel identified in the tables above are not all encompassing. Personnel employed by or interacting with the aviation industry in areas such as passenger and cargo reservation centres, and engineering and maintenance, except when acting in a capacity identified in the tables above, shall be provided with dangerous goods training in accordance with 8.10.1.10 of this part.

Note 3: The requirements for training the postal worker can be found in the Technical Instructions.

IS 8.10.1.12 INITIAL CREW RESOURCE MANAGEMENT TRAINING

(a) Each AOC holder shall ensure that the FOOs and all aircraft crew members have CRM training (inclusive of human factors) as part of their initial and recurrent training requirements.

(1) A CRM training programme shall include:

(i) An initial indoctrination/awareness segment;
(ii) A method to provide recurrent practice and feedback; and
(iii) A method of providing continuing reinforcement.

(2) Curriculum topics to be contained in an initial CRM training course include:

(i) Communications processes and decision behaviour
(ii) Internal and external influences on interpersonal communications.
(iii) Barriers to communication.
(iv) Listening skills.
(v) Decision-making skills.
(vi) Effective briefings.
(vii) Developing open communications.
(viii) Inquiry, advocacy, and assertion training.
(ix) Crew self-critique.
(x) Conflict resolution.
(xi) Team building and maintenance.
(xii) Leadership and fellowship training.
(xiii) Interpersonal relationships.
(xiv) Workload management.
(xv) Situational awareness.
(xvi) How to prepare, plan and monitor task completions.
(xvii) Workload distribution.
(xviii) Distraction avoidance.
(xix) Individual factors.
(xx) Stress reduction

IS 8.10.1.13 INITIAL EMERGENCY EQUIPMENT DRILLS

(a) Each aircraft crew member shall accomplish emergency training during the specified training periods, using those items of installed emergency equipment for each type of aircraft in which he or she is to serve.

(b) During initial training, each aircraft crew member shall perform the following one-time emergency drills:

(1) PROTECTIVE BREATHING EQUIPMENT/FIREFIGHTING DRILL.

(i) Locate source of fire or smoke (actual or simulated fire).

(ii) Implement procedures for effective crew co-ordination and communication, including notification of flight crew members about fire situation.

(iii) Don and activate installed PBE or approved PBE simulation device.

(iv) Manoeuvre in limited space with reduced visibility.

(v) Effectively use the aircraft's communication system.

(vi) Identify class of fire.

(vii) Select the appropriate extinguisher.

(viii) Properly remove extinguisher from securing device.

(ix) Prepare, operate and discharge extinguisher properly.

(x) Utilise correct firefighting techniques for type of fire.

(2) EMERGENCY EVACUATION DRILL.

(i) Recognise and evaluate an emergency.

(ii) Assume appropriate protective position.

(iii) Command passengers to assume protective position.

(iv) Implement crew co-ordination procedures.

(v) Ensure activation of emergency lights.

(vi) Assess aircraft conditions.

(vii) Initiate evacuation (dependent on signal or decision).

(viii) Command passengers to release seatbelts and evacuate.

(ix) Assess exit and redirect, if necessary; to open exit, including deploying slides and commanding helpers to assist.

(x) Command passengers to evacuate at exit and run away from aircraft.

(xi) Assist special need passengers, such as handicapped, elderly, and persons in a state of panic.

(xii) Actually exit aircraft or training device using at least one of the installed emergency evacuation slides.

Note: The crew member may either observe the aeroplane exits being opened in the emergency mode and the associated exit slide/raft pack being deployed and inflated, or perform the tasks resulting in the accomplishment of these actions.

(c) Each aircraft crew member shall accomplish additional emergency drills during initial and recurrent training, including actual performance of the following emergency drills:

(1) EMERGENCY EXIT DRILL.

(i) Correctly pre-flight each type of emergency exit and evacuation slide or slide raft (if part of cabin crew member's assigned duties).

(ii) Disarm and open each type of door exit in normal mode.

(iii) Close each type of door exit in normal mode.

(iv) Arm each type of door exit in emergency mode.

(v) Open each type of door exit in emergency mode.

(vi) Use manual slide inflation system to accomplish or ensure slide or slide raft inflation.

(vii) Open each type of window exit.

(viii) Remove escape rope and position for use.

(2) HAND FIRE EXTINGUISHER DRILL.

(i) Pre-flight each type of hand fire extinguisher.

(ii) Locate source of fire or smoke and identify class of fire.

(iii) Select appropriate extinguisher and remove from securing device.

(iv) Prepare extinguisher for use.

(v) Actually operate and discharge each type of installed hand fire extinguisher.

Note 1: Fighting an actual or a simulated fire is not necessary during this drill.

Note 2: The discharge of Halon extinguishing agents during firefighting drills in not appropriate, unless a training facility is used that is specifically designed to prevent harm to the environment from the discharged Halon. When such facilities are not used, other fire extinguishing agents that are not damaging to the environment may be used during the drills.

(vi) Utilise correct firefighting techniques for type of fire.

(vii) Implement procedures for effective crew co-ordination and communication, including notification of flight crew members about the type of fire situation.

(3) EMERGENCY OXYGEN SYSTEM DRILL.

(i) Pre-flight and operation of portable oxygen devices.

(ii) Actually operate portable oxygen bottles, including masks and tubing.

(iii) Verbally demonstrate operation of chemical oxygen generators or installed oxygen supply system.

(iv) Prepare for use and operate oxygen device properly, including donning and activation.

(v) Administer oxygen to self, passengers, and to those persons with special oxygen needs.

(vi) Utilise proper procedures for effective crew co-ordination and communication.

(vii) Manually open each type of oxygen mask compartment and deploy oxygen masks.

(viii) Identify compartments with extra oxygen masks.

(ix) Implement immediate action decompression procedures.

(x) Reset oxygen system, if applicable.

(xi) Pre-flight and operation of PBE.

(xii) Activate PBE.

Note: Several operators equip their aircraft with approved PBE units that have approved storage pouches fastened with two metal staples at one end. However, considerations of practicality and cost compel operators to use a less durable storage pouch that lacks the staple fasteners for training purposes. As a result, pilots and cabin crew members have been surprised that opening the pouch furnished on board requires more force than opening the training pouch. The Authority may require crew member training that includes the appropriate procedures for operating PBE. In those cases where pouches with staples are used for storage of the PBE unit, special emphasis in training may highlight the difference between the training pouch and the on-board pouch. The training pouch may be easy to open, but the approved, on-board pouch may require as much as 28 pounds of force to overcome the 2 staple fasteners.

(4) FLOTATION DEVICE DRILL.

(i) Pre-flight flotation device, if appropriate.

(ii) Don and inflate life vests.

(iii) Remove and use flotation seat cushions, as installed.

(iv) Demonstrate swimming techniques using a seat cushion, as installed.

(5) DITCHING DRILL IF APPLICABLE.

Note: During a ditching drill students shall perform the "prior to impact" and "after impact" procedures for a ditching, as appropriate to the specific operator's type of operation.

(i) Implement crew co-ordination procedures, including briefing with the PIC to obtain pertinent ditching information and briefing cabin crew members.

(ii) Co-ordinate time frame for cabin and passenger preparation.

(iii) Adequately brief passengers on ditching procedures.

(iv) Ensure cabin is prepared, including the securing of carry-on baggage, lavatories, and galleys.

(v) Demonstrate how to properly deploy and inflate slide raft.

(vi) Demonstrate how to properly deploy and inflate life rafts, if applicable.

(vii) Remove, position and attach slide rafts to aircraft.

(viii) Inflate rafts.

(ix) Use escape ropes at overwing exits.

(x) Command helpers to assist.

(xi) Use slides and life vests or seat cushions as flotation devices.

(xii) Remove appropriate emergency equipment from aircraft.

(xiii) Board rafts properly.

(xiv) Initiate raft management procedures (i.e., disconnecting rafts from aircraft, applying immediate first aid, rescuing persons in water, salvaging floating rations and equipment, deploying sea anchor, tying rafts together, activating or ensuring operation of emergency locator transmitter).

(xv) Initiate basic survival procedures (i.e., removing and utilising survival kit items, repairing and maintaining raft, ensuring protection from exposure, erecting canopy, communicating location, providing continued first aid, providing sustenance).

(xvi) Use heaving line to rescue persons in water.

(xvii) Tie slide rafts or rafts together.

(xviii) Use life line on edge of slide raft or life raft as a handhold.

(xix) Secure survival kit items.

(xx) Each aircraft crew member shall accomplish additional emergency drill requirements during initial and recurrent training including observing the following emergency drills:

(6) LIFE RAFT REMOVAL AND INFLATION DRILL IF APPLICABLE.

(i) Removal of a life raft from the aircraft or training device.

(ii) Inflation of a life raft.

(7) SLIDE RAFT TRANSFER DRILL.

(i) Transfer of each type of slide raft pack from an unusable door to a usable door.

(ii) Disconnect slide raft at unusable door.

(iii) Redirect passengers to usable slide raft.

(iv) Installation and deployment of slide raft at usable door.

(8) SLIDE AND SLIDE RAFT DEPLOYMENT, INFLATION AND DETACHMENT DRILL

(i) Engage slide girt bar in floor brackets, if applicable.

(ii) Arm slide for automatic inflation.

(iii) Inflate slides with and without quick-release handle (manually and automatically).

(iv) Disconnecting slide from the aircraft for use as a flotation device.

(v) Arm slide rafts for automatic inflation.

(vi) Disconnecting slide raft from the aircraft.

(9) EMERGENCY EVACUATION SLIDE DRILL.

(i) Open armed exit with slide or slide raft deployment and inflation.

(ii) Egress from aircraft via the evacuation slide and run away to a safe distance.

IS 8.10.1.14(B) INITIAL AIRCRAFT GROUND TRAINING – FLIGHT CREW

(a) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown. Instructions shall include at least the following general subjects:

(1) AOC holder's dispatch, flight release, or flight locating procedures.

(2) Principles and methods for determining mass and balance, and runway limitations for take-off.

(3) AOC holder's operations specifications, authorisations and limitations.

(4) Adverse weather recognition and avoidance, and flight procedures which shall be followed when operating in the following conditions:

(i) Icing.

(ii) Fog.

(iii) Turbulence.

(iv) Heavy precipitation.

(v) Thunderstorms.

(vi) Low-level windshear and microburst.

(vii) Low visibility.

(viii) Contaminated runways.

(5) Normal and emergency communications procedures and navigation equipment including the AOC holder's communications procedures and ATC clearance requirements.

(6) Navigation procedures used in area departure, en-route, area arrival, approach and landing phases, to include visual cues prior to and during descent below DH or MDA.

(7) Approved CRM training.

(8) ATC systems, procedures, and phraseology.

(9) Aircraft performance characteristics during all flight regimes, including:

(i) The use of charts, tables, tabulated data and other related manual information.

(ii) Normal, abnormal, and emergency performance problems.

(iii) Meteorological and mass limiting performance factors (such as temperature, pressure, contaminated runways, precipitation, climb/runway limits).

(iv) Inoperative equipment performance limiting factors (such as MEL/CDL, inoperative antiskid).

(v) Special operational conditions (such as unpaved runways, high altitude aerodromes and drift down requirements).

(10) Normal, abnormal and emergency procedures on the aircraft type to be used.

(b) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown, including at least the following aircraft systems (if applicable):

(1) AIRFRAME.

(i) Aircraft

(ii) Aircraft dimensions, turning radius, panel layouts, flight deck, and cabin configurations

(iii) Other major systems and components or appliances of the aircraft

(iv) Operating limitations

(v) Approved Aircraft Flight Manual

(2) POWERPLANTS.

(i) Basic engine description.

(ii) Engine thrust ratings.

(iii) Engine components such as accessory drives, ignition, oil, fuel control, hydraulic, and bleed air features.

(3) ELECTRICAL.

(i) Sources of aircraft electrical power (such as engine driven generators, APU generator, external power, etc.).

(ii) Electrical buses.

(iii) Circuit breakers.

(iv) Aircraft battery.

(v) Standby power systems.

(4) HYDRAULIC.

(i) Hydraulic reservoirs, pumps, accumulators; filters, check valves, interconnects and actuators.

(ii) Other hydraulically operated components.

(5) FUEL.

(i) Fuel tanks (location and quantities).

(ii) Engine driven pumps.

(iii) Boost pumps.

(iv) System valves and crossfeeds.

(v) Quantity indicators.

(vi) Provisions for fuel jettisoning.

(6) PNEUMATIC.

(i) Bleed air sources (APU, engine or external ground air).

(ii) Means of routing, venting and controlling bleed air via valves, ducts, chambers, and temperature and pressure limiting devices.

(7) AIR CONDITIONING AND PRESSURISATION.

(i) Heaters, air conditioning packs, fans, and other environmental control devices.

(ii) Pressurisation system components such as outflow and negative pressure relief valves.

(iii) Automatic, standby, and manual pressurisation controls and annunciators.

(8) FLIGHT CONTROLS.

(i) Primary controls (yaw, pitch, and roll devices).

(ii) Secondary controls (leading/trailing edge devices, flaps, trim, and damping mechanisms).

(iii) Means of actuation (direct/indirect or fly by wire).

(iv) Redundancy devices.

(9) LANDING GEAR AND BRAKES.

(i) Landing gear extension and retraction mechanism including the operating sequence of struts, doors, and locking devices, and brake and antiskid systems, if applicable.

(ii) Steering (nose or body steering gear).

(iii) Bogie arrangements.

(iv) Air/ground sensor relays.

(v) Visual downlock indicators.

(10) ICE AND RAIN PROTECTION.

(i) Rain removal systems.

(ii) Anti-icing and/or de-icing system(s) affecting flight controls, engines, pitot static and other probes, fluid outlets, flight deck windows, and aircraft structures.

(11) EQUIPMENT AND FURNISHINGS.

(i) Exits.

(ii) Galleys.

(iii) Water and waste systems.

(iv) Lavatories.

(v) Cargo areas.

(vi) Crew member and passenger seats.

(vii) Bulkheads.

(viii) Seating and/or cargo configurations.

(ix) Non-emergency equipment and furnishings.

(12) NAVIGATION EQUIPMENT.

(i) Flight directors.

(ii) Horizontal situation indicator.

(iii) Radio magnetic indicator.

(iv) Navigation receivers (GPS, ADF, SDF/LDA, VOR, TACAN, LORAN-C, RNAV, Marker Beacon, DME) as required for the flight operations to be conducted.

(v) Inertial systems (INS, IRS).

(vi) Functional displays.

(vii) Fault indications and comparator systems.

(viii) Aircraft transponders.

(ix) Radio altimeters.

(x) Weather radar.

(xi) CRT or computer-generated generated displays of aircraft position and navigation information.

(13) AUTOFLIGHT SYSTEM.

(i) Autopilot.

(ii) Autothrottles.

(iii) Flight director and navigation systems.

(iv) Automatic approach tracking.

(v) Autoland.

(vi) Automatic fuel and performance management systems.

(14) FLIGHT INSTRUMENTS.

(i) Panel arrangement.

(ii) Flight instruments (attitude indicator, directional gyro, magnetic compass, airspeed indicator, vertical speed indicator, altimeters, standby instruments).

(iii) Instrument power sources, and instrument sensory sources (e.g., pitot static pressure).

(15) DISPLAY SYSTEMS.

(i) Weather radar.

(ii) Other cathode ray tube (CRT) or computer generated displays (e.g., checklist, vertical navigation or longitudinal navigation displays)

(iii) Head-up displays and/or enhanced vision systems

(16) COMMUNICATION EQUIPMENT.

(i) VHF/HF/SAT COM radios.

(ii) Audio panels.

(iii) Inflight interphone and passenger address systems.

(iv) Voice recorder.

(v) Air/ground passive communications systems

(17) WARNING SYSTEMS.

(i) Aural, visual, and tactile warning systems (including the character and degree of urgency related to each signal).

(ii) Warning and caution annunciator systems (including ACAS and ground proximity and take-off configuration warning systems).

(18) FIRE PROTECTION.

(i) Fire and overheat sensors, loops, modules, or other means of providing visual and/or aural indications of fire or overheat detection.

(ii) Procedures for the use of fire handles, automatic extinguishing systems and extinguishing agents.

(iii) Power sources necessary to provide protection for fire and overheat conditions in engines, APU, cargo bay/wheel well, flight deck, cabin and lavatories.

(19) OXYGEN.

(i) Passenger, crew, and portable oxygen supply systems.

(ii) Sources of oxygen (gaseous or solid).

(iii) Flow and distribution networks.

(iv) Automatic deployment systems.

(v) Regulators, pressure levels and gauges.

(vi) Servicing requirements.

(20) LIGHTING.

(i) Flight deck, cabin, and external lighting systems.

(ii) Power sources.

(iii) Switch positions.

(iv) Spare light bulb locations.

(21) EMERGENCY EQUIPMENT.

(i) Fire and oxygen bottles.

(ii) First aid and medical kits.

(iii) Life rafts and life preservers.

(iv) Crash axes.

(v) Emergency exits and lights.

(vi) Slides and slide rafts.

(vii) Escape straps or handles.

(viii) Hatches, ladders and movable stairs.

(ix) Survival suits, if applicable to the operation.

(22) AUXILIARY POWER UNIT.

(i) Electric and bleed air capabilities.

(ii) Interfaces with electrical and pneumatic systems.

(iii) Inlet doors and exhaust ducts.

(iv) Fuel supply.

(23) PERFORMANCE

(24) ELECTRONIC FLIGHT BAG (if applicable).

(c) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown, including at least the following aircraft systems integration items:

(1) USE OF CHECKLIST.

(i) Safety checks.

(ii) Flight deck preparation (switch position and checklist flows).

(iii) Checklist callouts and responses.

(iv) Checklist sequence.

(2) FLIGHT PLANNING.

(i) Pre-flight and in-flight planning.

(ii) Performance limitations (meteorological, mass, and MEL/CDL items).

(iii) Required fuel loads.

(iv) Weather planning (lower than standard take-off minimums or alternate requirements).

(3) DISPLAY SYSTEMS.

(i) Weather radar.

(ii) CRT displays (e.g., checklists, vertical navigation or longitudinal navigation displays).

(4) NAVIGATION AND COMMUNICATION SYSTEMS.

(i) Pre-flight and operation of applicable receivers.

(ii) On-board navigation systems.

(iii) Flight plan information input and retrieval.

(5) AUTOFLIGHT/FLIGHT DIRECTORS.

(i) Autopilot.

(ii) Autothrust.

(iii) Flight director systems, including the appropriate procedures, normal and abnormal indications, and annunciators.

(6) FLIGHT DECK FAMILIARISATION.

(i) Activation of aircraft system controls and switches to include normal, abnormal and emergency switches.

(ii) Control positions and relevant annunciators, lights, or other caution and warning systems.

(d) Each AOC holder shall ensue that initial ground training for flight crew consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) For pilots and FEs:

(i) Reciprocating-engine aeroplane—64 hours.

(ii) Turbopropeller-powered aeroplane—80 hours.

(iii) Turbo-jet aeroplane—120 hours.

(iv) Helicopter—64 hours.

(v) Powered-lift—80 hours.

(vi) Other aircraft—64 hours.

(2) For FNs:

(i) Reciprocating-engine aircraft—16 hours.

(ii) Turbopropeller-powered aircraft—32 hours.

(iii) Turbojet-aircraft— 32 hours

IS 8.10.1.14(C) INITIAL AIRCRAFT GROUND TRAINING – CABIN CREW MEMBERS

(a) Each AOC holder shall have an initial ground training curriculum for cabin crew members applicable to the type of operations conducted and aircraft flown, including at least the following general subjects, if applicable:

(1) AIRCRAFT FAMILIARISATION.

(i) Aircraft characteristics and description.

(ii) Flight deck configuration.

(iii) Cabin configuration.

(iv) Galleys.

(v) Lavatories.

(vi) Stowage areas.

(2) AIRCRAFT EQUIPMENT AND FURNISHINGS.

(i) Cabin crew member stations.

(ii) Cabin crew member panels.

(iii) Passenger seats.

(iv) Passenger service units and convenience panels.

(v) Passenger information signs.

(vi) Aircraft markings.

(vii) Aircraft placards.

(viii) Bassinets and bayonet tables.

(3) AIRCRAFT SYSTEMS.

(i) Air conditioning and pressurisation system.

(ii) Aircraft communication systems (call, interphone and passenger address).

(iii) Lighting and electrical systems.

(iv) Oxygen systems (flight crew, observer and passenger).

(v) Water system.

(vi) Entertainment and convenience systems.

(4) AIRCRAFT EXITS.

(i) General information.

(ii) Exits with slides or slide rafts (pre-flight and normal operation).

(iii) Exits without slides (pre-flight and normal operations).

(iv) Window exits (pre-flight).

(5) CREW MEMBER COMMUNICATION AND COORDINATION.

(i) Authority of PIC.

(ii) Routine communication signals and procedures.

(iii) Crew member briefing.

(6) ROUTINE CREW MEMBER DUTIES AND PROCEDURES.

(i) Crew member general responsibilities.

(ii) Reporting duties and procedures for specific aircraft.

(iii) Pre-departure duties and procedures prior to passenger boarding.

(iv) Passenger boarding duties and procedures.

(v) Prior to movement on the surface duties and procedures.

(vi) Prior to take-off duties and procedures applicable to specific aircraft.

(vii) Inflight duties and procedures.

(viii) Prior to landing duties and procedures.

(ix) Movement on the surface and arrival duties and procedures.

(x) After arrival duties and procedures.

(xi) Intermediate stops.

(7) PASSENGER HANDLING RESPONSIBILITES.

(i) Crew member general responsibilities.

(ii) Infants, children, and unaccompanied minors.

(iii) Passengers needing special assistance.

(iv) Passengers needing special accommodation.

(v) Carry-on stowage requirements.

(vi) Passenger seating requirements.

(vii) Smoking and no smoking requirements.

(8) APPROVED CREW RESOURCE MANAGEMENT TRAINING FOR CABIN CREW MEMBERS.

(b) Each AOC holder shall have an initial ground training curriculum for cabin crew members applicable to the type of operations conducted and aircraft flown, including at least the following aircraft specific emergency subjects, if applicable:

(1) EMERGENCY EQUIPMENT.

(i) Emergency communication and notification systems.

(ii) Aircraft exits.

(iii) Exits with slides or slide rafts (emergency operation).

(iv) Slides and slide rafts in a ditching.

(v) Exits without slides (emergency operation).

(vi) Window exits (emergency operation).

(vii) Exits with tailcones (emergency operation).

(viii) Flight deck exits (emergency operation).

(ix) Ground evacuation and ditching equipment.

(x) First aid equipment.

(xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, PBE).

(xii) Fire fighting equipment.

(xiii) Emergency lighting systems.

(xiv) Universal precaution kits

(xv) Automated external defibrillators

(xvi) Survival suits, if applicable to the operation.

(xvii) Additional emergency equipment.

(2) EMERGENCY ASSIGNMENTS AND PROCEDURES.

(i) General types of emergencies specific to aircraft, including crew coordination and communication.

(ii) Emergency communication signals and procedures.

(iii) Rapid decompression.

(iv) Insidious decompression and cracked window and pressure seal leaks.

(v) Fires.

(vi) Ditching.

(vii) Ground evacuation.

(viii) Unwarranted evacuation (i.e., passenger initiated).

(ix) Illness or injury.

(x) Abnormal situations involving passengers or crew members.

(xi) Hijacking and acts of unlawful interference.

(xii) Bomb threat.

(xiii) Turbulence.

(xiv) Other unusual situations including an awareness of other crew member's assignments and functions as they pertain to the cabin crew member's own duties.

(xv) Previous aircraft accidents and incidents.

(3) AIRCRAFT SPECIFIC EMERGENCY DRILLS.

(i) Emergency exit drill.

(ii) Hand fire extinguisher drill.

(iii) Emergency oxygen system drill.

(iv) Flotation device drill.

(v) Ditching drill, if applicable.

(vi) Life raft removal and inflation drill, if applicable.

(vii) Slide raft pack transfer drill, if applicable.

(viii) Slide or slide raft deployment, inflation, and detachment drill, if applicable.

(ix) Emergency evacuation slide drill, if applicable.

(c) Each AOC holder shall ensure that initial ground training for a cabin crew member includes a competency check given by the appropriate supervisor or ground instructor to determine his or her ability to perform assigned duties and responsibilities.

(d) Each AOC holder shall ensure that initial ground training for cabin crew members consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) Reciprocating-engine aircraft - 8 hours.

(2) Turbopropeller-powered aircraft - 8 hours.

(3) Turbojet aircraft – 16 hours.

(4) Other aircraft, including, if applicable, helicopter and powered lift – 8 hours

IS 8.10.1.14(D) INITIAL AIRCRAFT GROUND TRAINING – FLIGHT OPERATIONS OFFICER

(a) Each AOC holder shall provide initial aircraft ground training for FOOs that include instruction in at least the following subjects:

(1) GENERAL DISPATCH SUBJECTS.

(i) Appropriate regulations

(ii) AOC holder's OM

(iii) AOC holder's operations specifications

(iv) Weather reports: interpretation, available sources, actual and prognostic, seasonal variations

(v) Communications, to include normal and emergency

(vi) Meteorology, to include effects on radio reception

(vii) Adverse weather

(viii) NOTAMs

(ix) Navigational charts and publications

(x) Joint dispatcher/pilot responsibilities

(xi) ATC coordination procedures

(xii) Familiarisation with operations area, including classes of airspace and special areas of navigation

(xiii) Characteristics of special aerodromes

(2) AIRCRAFT CHARACTERISTICS:

(i) Aircraft specific flight preparation

(ii) Aircraft operating and performance characteristics

(iii) Navigation equipment, including peculiarities and limitations

(iv) Instrument approach and communication equipment

(v) Emergency equipment

(vi) Aircraft Flight Manual or Rotorcraft Flight Manual provisions applicable to the aircraft duties

(vii) MEL/CDL

(viii) Applicable equipment training

(3) OPERATIONS PROCEDURES.

(i) Adverse weather phenomena (wind-shear, clear air turbulence and thunderstorms)

(ii) Mass and balance computations and load control procedures

(iii) Aircraft performance computations, to include take-off mass limitations based on departure runway, arrival runway, and en-route limitations, and also engine-out limitations

(iv) Flight planning procedures, to include route selection, flight time, and fuel requirements analysis

(v) Dispatch release preparation

(vi) Crew briefings

(vii) Flight monitoring procedures

(viii) MEL and CDL procedures

(ix) Manual performance of all required procedures in case of the loss of automated capabilities

(x) Training in appropriate geographic areas

(xi) ATC and instrument procedures, ground hold and central flow control procedures

(xii) Radio/telephone procedures

(4) ABNORMAL AND EMERGENCY PROCEDURES.

(i) Assisting flight crew in an emergency

(ii) Alerting of appropriate governmental, company and private agencies

(5) CREW RESOURCES MANAGEMENT.

Note: IS 8.10.1.12 contains CRM training items.

(6) Dangerous goods

Note: IS 8.10.1.10 contains dangerous goods training items.

(7) Security

Note: ICAO Doc 9811, Manual on the Implementation of the Security Provisions of Annex 6, Chapter 3, provides additional guidance.

(8) Differences training

Note: IS 8.10.1.17 contains items on differences training.

(b) Each AOC holder shall ensure that initial ground training for FOOs includes a competency check given by an appropriately qualified dispatch supervisor or ground instructor that demonstrates the required knowledge and abilities.

(c) Each AOC holder shall ensure that initial ground training for FOOs consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) Reciprocating-engine aircraft – 30 hours

(2) Turbopropeller-powered aircraft – 40 hours

(3) Turbo-jet aircraft – 40 hours

IS 8.10.1.15 INITIAL AIRCRAFT FLIGHT TRAINING

(a) Each AOC holder shall ensure that pilot initial flight training includes at least the following training and practice in procedures related to the carrying out of pilot duties and functions. This training and practice may be accomplished either in flight or in an FSTD, as appropriate to the category and class of aircraft, and as approved by the Authority.

Note: The flight training events for pilots listed in this IS are generic in nature for a type-rated aeroplane training curriculum conducted in an FSTD. All of the events may not apply to all aircraft (e.g. one engine inoperative landing for mutli-engine versus single engine aeroplanes) or may differ in the requirements for a similar event (e.g. taxi for aeroplane, helicopter, and seaplane). Additional training events may need to be added, changed or deleted for aircraft based on aircraft category or class.

(1) PREPARATION.

(i) Aircraft pre-flight done by external walk around, unless the use of pictorial display is authorised by the Authority.

(ii) Pre-taxi procedures

(iii) Performance limitations

(iv) Surface operation

(v) Pushback

(vi) Powerback taxi, if applicable to the type of operation to be conducted

(vii) Starting

(viii) Taxi

(ix) Pre-take-off checks

(2) TAKE-OFF.

(i) Normal

(ii) Crosswind

(iii) Rejected

(iv) Power failure after V1

(v) Lower than standard minimum, if applicable to the type of operation to be conducted

(3) CLIMB.

(i) Normal

(ii) One-engine inoperative during climb to en-route altitude

(4) EN-ROUTE.

(i) Steep turns

(ii) Approaches to stalls (take-off, en-route, and landing configurations)

(iii) Inflight powerplant shutdown

(iv) Inflight powerplant restart

(v) High speed handling characteristics

(5) DESCENT.

(i) Normal

(ii) Maximum rate

(6) APPROACHES.

(i) VFR procedures

(ii) Visual approach with 50% loss of power of available powerplants

(iii) Visual approach with slat/flap malfunction

(iv) IFR PAs (ILS normal and ILS with one-engine inoperative)

(v) IFR NPAs (NDB normal and VOR normal)

Note 1: NPA with one engine inoperative may include LOC backcourse procedures, SDF/LDA, GPS, TACAN and circling approach procedures, as applicable to the operator's authorisations.

Note 2: Simulator shall be qualified for training/checking on the circling manoeuvre.

(vi) Missed approach from PA

(vii) Missed approach from NPA

(viii) Missed approach with powerplant failure

(7) LANDINGS.

(i) Normal with a pitch mistrim (small aircraft only)

(ii) Normal from precision instrument approach

(iii) Normal from precision instrument approach with most critical engine inoperative

(iv) Normal with 50% loss of power of available powerplants

(v) Normal with flap/slat malfunction

(vi) Rejected landings

(vii) Crosswind

(viii) Manual reversion/degraded control augmentation

(ix) Short/soft field (small aircraft only)

(x) Glassy/rough water (seaplanes only)

(xi) Auto-rotation (helicopter only)

(8) AFTER LANDING.

(i) Parking

(ii) Emergency evacuation

(iii) Docking, mooring, and ramping (seaplanes only)

(9) OTHER FLIGHT PROCEDURES DURING ANY AIRBORNE PHASE

(i) ACAS: use and avoidance maneuvers

(ii) Holding

(iii) Ice accumulation on airframe

(iv) Air hazard avoidance

(v) Windshear/ microburst

(10) NORMAL, ABNORMAL AND ALTERNATE SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Pneumatic/pressurisation

(ii) Air conditioning

(iii) Fuel and oil

(iv) Electrical

(v) Hydraulic

(vi) Flight controls

(vii) Anti-icing and de-icing systems

(viii) Autopilot

(ix) Flight management guidance systems and/or automatic or other approach and landing aids

(x) Stall warning devices, stall avoidance devices, and stability augmentation systems

(xi) Airborne weather radar

(xii) Flight instrument system malfunction

(xiii) Communications equipment

(xiv) Navigation systems

(11) EMERGENCY SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Aircraft fires

(ii) Smoke control

(iii) Powerplant malfunctions

(iv) Fuel jettison

(v) Electrical, hydraulic, pneumatic systems

(vi) Flight control system malfunction

(vii) Landing gear and flap system malfunction

(b) Each AOC holder shall ensure that FE flight training includes at least the following training and practice in procedures related to the carrying out of FE duties and functions. This training and practice may be accomplished either in flight or in an FSTD as approved by the Authority.

Note: The flight training events for FEs listed in this IS are generic in nature for a type-rated aeroplane training curriculum. Additional training events may need to be added, changed or deleted. The events listed are typically conducted in a FSTD, except as noted, and may be conducted in aircraft when appropriate

(1) PREPARATION.

(i) Airplane pre-flight

(ii) Logbook procedures

(iii) Safety checks

(iv) Cabin/interiors

(v) Exterior Walkaround

(vi) Servicing/de-icing

(vii) Use of Oxygen

(2) GROUND OPERATIONS.

(i) Performance Data

(A) TO/LND Data

(B) Airport Analysis

(C) Mass and Balance

(ii) Use of Checklist

(A) Panel setup

(iii) Starting

(A) External power

(B) External Air

(C) APU

(iv) Communications.

(A) Station Procedures

(B) ACARS

(v) Taxi

(3) TAKE-OFF

(i) Powerplant Control

(ii) Flaps/landing gear

(iii) Fuel management

(iv) Other Systems Operation

(v) Aircraft Performance

(vi) Checklist Completion

(4) CLIMB.

(i) Powerplant control

(ii) Fuel Management

(iii) Pressurisation

(iv) Electrical System

(v) Air Conditioning

(vi) Flight Controls

(vii) Other Systems

(5) EN-ROUTE.

(i) Powerplant Operation

(ii) Fuel Management

(iii) Performance Management

(iv) High Altitude Performance

(v) Other Systems Operation

(6) DESCENT.

(i) Powerplant operation

(ii) Other Systems Operation

(iii) Performance Management

(7) APPROACH.

(i) Landing Data

(ii) Landing Gear Operation

(iii) Flat/Slat/Spoiler Operation

(iv) Approach Monitoring

(8) LANDINGS.

(i) Powerplant Operation

(ii) Aircraft Configuration

(iii) System Operation

(A) Emergency Evacuation

(9) PROCEDURES DURING ANY GROUND OR AIRBORNE PHASE.

(i) Flight deck Equipment

(ii) Flap Slats/Gear

(iii) Powerplant

(iv) Pressurisation

(v) Pneumatic

(vi) Air Conditioning

(vii) Fuel and Oil

(viii) Electrical

(ix) Hydraulic

(x) Flight Controls

(xi) Anti-Icing and De-icing

(xii) Other Checklist Procedures

(c) Each AOC holder shall ensure that FN flight training includes at least the following training and practice in procedures related to the carrying out of FN duties and functions. This training and practice may be accomplished either in flight or in an FSTD, as approved by the Authority.

(1) Initial flight training for FNs shall include flight training and a flight check that is adequate to ensure the crew member's proficiency in the performance of his or her assigned duties.

(2) The flight training and check specified in paragraph (1) of this IS shall be performed:

(i) In-flight or in an appropriate FSTD; or

(ii) In commercial air transport operations, if performed under the supervision of a qualified FN instructor or check navigator, as applicable.

(d) Each AOC holder shall ensure that initial flight training for pilots and FEs consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) For one pilot in either an aircraft or an FSTD:

(i) Reciprocating-engine aircraft—PIC: 14 hours; CP: 14 hours; and FE: 12 hours.

(ii) Turbopropeller-powered aircraft—PIC: 15 hours; CP: 15 hours; and FE: 12 hours.

(iii) Turbo-jet aircraft—PIC: 20 hours; CP: 16 hours; and FE; 12 hours.

(iv) Other aircraft—PIC and CP: 14 hours.

(2) For two pilots in an FSTD:

(i) Reciprocating-engine aircraft—PIC: 24 hours; CP: 24 hours; and FE: 20 hours.

(ii) Turbopropeller-powered aircraft—PIC: 24 hours; CP: 24 hours; and FE: 20 hours.

(iii) Turbo-jet aircraft—PIC: 28 hours; CP: 28 hours; and FE: 20 hours.

(iv) Other aircraft—PIC and CP: 24 hours

Note: Training times in item (d) of this IS are higher than in 14 CFR and are taken from the FAA national norms in FAA Order 8900.1.

IS 8.10.1.16 INITIAL SPECIALISED OPERATIONS TRAINING

(a) Each AOC holder shall provide initial specialised operations training to ensure that each pilot and FOO is qualified in the type of operation in which he or she serves and in any specialised or new equipment, procedures, and techniques, such as:

(1) LORAN.

(i) Knowledge of specialised navigation procedures, such as MNPS, NPAC.

(ii) Knowledge of specialised equipment, such as INS, LORAN, GPS.

(2) CAT II and CAT III approaches.

(3) Special equipment, procedures and practice.

(4) A demonstration of competency.

(5) LVTO operations.

(i) Runway and lighting requirements.

(ii) Rejected take-offs at, or near, V1 with a failure of the most critical engine.

(iii) Taxi operations.

(iv) Procedures to prevent runway incursions under low visibility conditions.

(6) Extended range operations with two engine aeroplanes.

(7) Approaches using on-board radar.

(8) Autopilot instead of CP

IS 8.10.1.17 AIRCRAFT DIFFERENCES

(a) Each AOC holder shall provide aircraft differences training for FOOs when the operator has aircraft variances within the same type of aircraft, which includes at least the following:

(1) OPERATIONS PROCEDURES.

(i) Operations under adverse weather phenomena conditions, including clear air turbulence, windshear and thunderstorms

(ii) Mass and balance computations and load control procedures

(iii) Aircraft performance computations, to include take-off mass limitations based on departure runway, arrival runway, and en-route limitations, and also engine-out limitations

(iv) Flight planning procedures, to include route selection, flight time, and fuel requirements analysis

(v) Dispatch release preparation

(vi) Crew briefings

(vii) Flight monitoring procedures

(viii) Flight crew response to various emergency situations, including the assistance the aircraft FOO can provide in each situation.

(ix) MEL and CDL procedures.

(x) Manual performance of required procedures in case of the loss of automation capabilities.

(xi) Training in appropriate geographic areas.

(xii) ATC and instrument procedures, to include ground hold and central flow control procedures.

(xiii) Radio/telephone procedures.

(2) EMERGENCY PROCEDURES:

(i) Actions taken to aid the flight crew.

(ii) AOC holder and Authority notification

Note 1: The FAA Flight Standardisation Board, the Transport Canada and JAA Joint Operations Evaluation Board have a harmonised process and their reports are a source for differences training.

Note 2: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 3: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

IS 8.10.1.20 PILOT PROFICIENCY – AIRCRAFT AND INSTRUMENT PROFICIENCY CHECKS

(a) Aircraft and instrument proficiency checks for PIC and CP shall include the following operations and procedures listed in the appropriate skill test in Part 2 of these regulations, on each type or variant of type of aircraft.

(b) The oral and flight test phases of a proficiency check shall not be conducted simultaneously.

(c) When the check person determines that an applicant's performance is unsatisfactory, the check person may terminate the flight test immediately or, with the consent of the applicant, continue with the flight test until the remaining events are completed.

(d) If the check must be terminated (for mechanical or other reasons) and there are events which still need to be repeated, the check person shall issue a letter of discontinuance, valid for 60 days, listing the specific areas of operation that have been successfully completed.

(e) Satisfactory completion of a proficiency check following completion of an approved air carrier training programme for the particular type aircraft, satisfies the requirement for an aircraft type rating skill test if:

(1) That proficiency check includes all manoeuvres and procedures required for a type rating skill test.

(2) Proficiency checks are to be conducted by a check person approved by the Authority.

(f) The PIC proficiency check given in accordance with Part 8 may be used to satisfy the proficiency requirements of Part 2 of these regulations to act as a PIC.

(g) The CP proficiency check given in accordance with Part 8 may be used to satisfy the proficiency requirements of Part 2 to act as a CP.

(h) The AOC holder may combine recurrent training with the AOC holder's proficiency check if approved to do so by the Authority.

IS 8.10.1.22 PAIRING OF LOW-EXPERIENCE PILOTS

(a) Situations designated as critical by the Authority at special aerodromes designated by the Authority or at special aerodromes designated by the AOC holder include:

(1) The prevailing visibility value in the latest weather report for the aerodrome is at or below 1,200 m (3/4 SM).

(2) The RVR for the runway to be used is at or below 1,200 m (4,000 ft).

(3) The runway to be used has water, snow, slush or similar conditions that may adversely affect aircraft performance.

(4) The braking action on the runway to be used is reported to be less than "good".

(5) The crosswind component for the runway to be used is in excess of 15 knots.

(6) Windshear is reported in the vicinity of the aerodrome.

(7) Any other condition in which the PIC determines it to be prudent to exercise the PIC's prerogative.

(b) Circumstances that would be routinely be considered for deviation from the required minimum line operating flight time include:

(1) A newly certificated AOC holder does not employ any pilots who meet the minimum flight time requirements;

(2) An existing AOC holder adds to its fleet a type aircraft not before proven for use in its operations; or

(3) An existing AOC holder establishes a new domicile to which it assigns pilots who will be required to become qualified on the aircraft operated from that domicile.

Note: ICAO Doc 9376, Preparation of an Operations Manual, provides additional guidance.

IS 8.10.1.24 COMPETENCY CHECKS – CABIN CREW MEMBERS

(a) A check cabin crew member, approved by the Authority, shall conduct competency checks for cabin crew members in the following areas to demonstrate that each candidate's competency level is sufficient to successfully perform assigned duties and responsibilities.

(1) EMERGENCY EQUIPMENT, AS APPLICABLE.

(i) Emergency communication and notification systems

(ii) Aircraft exits

(iii) Exits with slides or slide rafts (emergency operation)

(iv) Slides and slide rafts in a ditching

(v) Exits without slides (emergency operation)

(vi) Window exits (emergency operation)

(vii) Exits with tailcones (emergency operation)

(viii) Flight deck exits (emergency operation)

(ix) Ground evacuation and ditching equipment

(x) First aid equipment

(xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, PBE)

(xii) Fire fighting equipment

(xiii) Emergency lighting systems

(xiv) Additional emergency equipmen

(2) EMERGENCY PROCEDURES:

(i) General types of emergencies specific to aircraft

(ii) Emergency communication signals and procedures

(iii) Rapid decompression

(iv) Insidious decompression and cracked window and pressure seal leaks

(v) Fires

(vi) Ditching

(vii) Ground evacuation

(viii) Unwarranted evacuation (i.e., Passenger initiated)

(ix) Illness or injury

(x) Abnormal situations involving passengers or crew members

(xi) Turbulence

(xii) Other unusual situations

(3) EMERGENCY DRILLS.

(i) Location and use of all emergency and safety equipment carried on the aeroplane

(ii) The location and use of all types of exits

(iii) Actual donning of a lifejacket where fitted

(iv) Actual donning of PBE

(v) Actual handling of fire extinguishers

(4) CREW RESOURCE MANAGEMENT.

(i) Decision-making skills

(ii) Briefings and developing open communication

(iii) Inquiry, advocacy, and assertion training

(iv) Workload management

(5) DANGEROUS GOODS.

(i) Recognition of and transportation of dangerous goods.

(ii) Proper packaging, marking, and documentation.

(iii) Instructions regarding compatibility, loading, storage and handling characteristics.

(6) SECURITY.

(i) Hijacking

IS 8.10.1.25 COMPETENCY CHECKS – FLIGHT OPERATIONS OFFICERS

(a) A check FOO, approved by the Authority, shall conduct competency checks for FOOs in at least the following areas to demonstrate that each candidate's competency level is sufficient to successfully perform assigned duties and responsibilities.

(1) Use of communications systems including the characteristics of those systems and the appropriate normal and emergency procedures;

(2) Meteorology, including various types of meteorological information and forecasts, interpretation of weather data (including forecasting of en-route and terminal temperatures and other weather conditions), frontal systems, wind conditions, and use of actual and prognostic weather charts for various altitudes;

(3) The NOTAM system;

(4) Navigational aids and publications;

(5) Joint dispatcher-pilot responsibilities;

(6) Characteristics of appropriate airports;

(7) Prevailing weather phenomena and the available sources of weather information;

(8) Air traffic control and IAPs; and

(9) Approved dispatcher resource management initial training.

IS 8.10.1.33 RECURRENT TRAINING – FLIGHT CREW MEMBERS

(a) Each AOC holder shall establish a recurrent training programme for all flight crew members in the AOC holder's OM and shall have it approved by the Authority.

(b) Each flight crew member shall undergo recurrent training relevant to the type or variant of aircraft on which he or she is certificated to operate and for the crew member position involved.

(c) Each AOC holder shall have all recurrent training conducted by suitably qualified personnel.

(d) Each AOC holder shall ensure that flight crew member recurrent ground training includes at least the following:

(1) GENERAL SUBJECTS.

(i) Flight locating procedures

(ii) Principles and method for determining mass/balance and runway limitations

(iii) Meteorology to ensure practical knowledge of weather phenomena including the principles of frontal system, icing, fog, thunderstorms, windshear, and high-altitude weather situations

(iv) ATC systems and phraseology

(v) Navigation and use of navigational aids

(vi) Normal and emergency communication procedures

(vii) Visual cues before descent to MDA

(viii) Accident/incident and occurrence review

(ix) Other instructions necessary to ensure the pilot's competence

(2) AIRCRAFT SYSTEMS AND LIMITATIONS.

(i) Normal, abnormal, and emergency procedures

(ii) Aircraft performance characteristics

(iii) Engines and, if applicable, propellers

(iv) Major aircraft components

(v) Major aircraft systems (i.e., flight controls, electric, hydraulic and other systems as appropriate)

(3) GROUND ICING AND DE-ICING PROCEDURES AND REQUIREMENTS.

(4) EMERGENCY EQUIPMENT AND DRILLS.

(5) EVERY 12 MONTHS.

(i) Location and use of all emergency and safety equipment carried on the aeroplane

(ii) The location and use of all types of exits

(iii) Actual donning of a lifejacket where fitted

(iv) Actual donning of PBE

(v) Actual handling of fire extinguishers

(6) EVERY 3 YEARS.

(i) Operation of all types of exits

(ii) Demonstration of the method used to operate a slide, where fitted

(iii) Fire-fighting using equipment representative of that carried in the aeroplane on an actual or simulated fire

Note: With Halon extinguishers, an alternative method acceptable to the Authority may be used.

(iv) Effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment

(v) Actual handling of pyrotechnics, real or simulated, where fitted

(vi) Demonstration in the use of the life raft(s), where fitted

(vii) An emergency evacuation drill

(viii) A ditching drill, if applicable

(ix) A rapid decompression drill, if applicable

(x) Survival suits, if applicable to the operation

(7) CREW RESOURCE MANAGEMENT:

(i) Decision-making skills

(ii) Briefings and developing open communication

(iii) Inquiry, advocacy, and assertion training

(iv) Workload management

(v) Situational awareness

(8) DANGEROUS GOODS.

(i) Recognition of and transportation of dangerous goods

(ii) Proper packaging, marking, and documentation

(iii) Instructions regarding compatibility, loading, storage and handling characteristics

(9) SECURITY.

(i) Hijacking

(ii) Disruptive passengers

(e) Each AOC holder shall verify knowledge of the recurrent ground training by an oral or written examination.

(f) Each AOC holder shall ensure that pilot recurrent flight training include at least the following:

Note: Flight training may be conducted in an appropriate aircraft, in an adequate FSTD, or in a combination of aircraft and FSTD, as approved by the Authority.

(1) PREPARATION.

(i) Visual inspection (use of pictorial display authorised).

(ii) Pre-taxi procedures.

(2) GROUND OPERATION:

(i) Performance limitations

(ii) Flight deck management

(iii) Securing cargo

(iv) Pushback

(v) Powerback taxi, if applicable

(vi) Starting

(vii) Taxi

(viii) Pre-take-off checks

(3) TAKE-OFF.

(i) Normal

(ii) Crosswind

(iii) Rejected

(iv) Power failure after V1

(v) Powerplant failure during second segment

(vi) LVTO Operations

(4) CLIMB.

(i) Normal

(ii) One-engine inoperative climb to en-route altitude

(5) EN-ROUTE.

(i) Steep turns

(ii) Approaches to stalls (take-off, en-route, and landing configurations)

(iii) Inflight powerplant shutdown

(iv) Inflight powerplant restart

(v) High speed handling characteristics

(6) DESCENT.

(i) Normal

(ii) Maximum rate

(7) APPROACHES.

(i) VFR procedures

(ii) Visual approach with 50% loss of power of available powerplants

(iii) Visual approach with slat/flap malfunction

(iv) IFR PAs (ILS normal and ILS with one-engine inoperative)

(v) IFR NPAs (NDB normal and VOR normal)

(vi) NPA with one engine inoperative (LOC backcourse, SDF/LDA, GPS, TACAN and circling approach procedures)

Note: An FSTD shall not be used for training and checking on the circling manoeuvre unless it has been qualified for circling manoeuvres. To participate in that training and checking, the operator shall be approved by the Authority to conduct circling manoeuvres.

(vii) Missed approach from PA

(viii) Missed approach from NPA

(ix) Missed approach with powerplant failure

(8) LANDINGS.

(i) Abnormal with a pitch mistrim (small aircraft only)

(ii) Abnormal from precision instrument approach

(iii) Abnormal from precision instrument approach with most critical engine inoperative

(iv) Abnormal with 50% loss of power of available powerplants

(v) Abnormal with flap/slat malfunction

(vi) Rejected landings

(vii) Crosswind

(viii) Short/soft field (small aircraft only)

(ix) Glassy/rough water (seaplanes only)

(x) Auto-rotation (helicopter only)

(9) AFTER LANDING.

(i) Parking

(ii) Emergency evacuation

(iii) Docking, mooring, and ramping (seaplanes only)

(10) OTHER FLIGHT PROCEDURES DURING ANY AIRBORNE PHASE.

(i) ACAS: use and avoidance manoeuvres

(ii) Holding

(iii) Ice accumulation on airframe

(iv) Air hazard avoidance

(v) Windshear/microburst

(11) NORMAL, ABNORMAL AND ALTERNATE SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Pneumatic/pressurisation

(ii) Air conditioning

(iii) Fuel and oil

(iv) Electrical

(v) Hydraulic

(vi) Flight controls

(vii) Anti-icing and de-icing systems

(viii) Flight management guidance systems and/or automatic or other approach and landing aids

(ix) Stall warning devices, stall avoidance devices, and stability augmentation systems

(x) Airborne weather radar

(xi) Flight instrument system malfunction

(xii) Communications equipment

(xiii) Navigation systems

(xiv) Autopilot

(xv) Approach and landing aids

(xvi) Flight instrument system malfunction

(12) EMERGENCY SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Aircraft fire

(ii) Smoke control

(iii) Powerplant malfunctions

(iv) Fuel jettison

(v) Electrical, hydraulic, pneumatic systems

(vi) Flight control system malfunction

(vii) Landing gear and flap system malfunction

(g) Each AOC holder shall ensure that FE recurrent flight training includes at least the flight training specified in IS: 8.10.1.15(b).

(h) Each AOC holder shall ensure that FN recurrent training includes enough training and an in-flight check to ensure competency with respect to operating procedures and navigation equipment to be used and familiarity with essential navigation information pertaining to the AOC holder's routes that require a FN.

(i) The AOC holder may combine recurrent training with the AOC holder's proficiency check if approved by the Authority.

(j) Recurrent ground and flight training curricula may be accomplished concurrently or intermixed, but completion of each of these curricula shall be recorded separately.

IS 8.10.1.34 RECURRENT NORMAL AND EMERGENCY TRAINING – CABIN CREW MEMBERS

(a) Each AOC holder shall establish and have approved by the Authority a recurrent training programme for all cabin crew members.

(b) Each cabin crew member shall undergo recurrent training in evacuation and other appropriate normal and emergency procedures and drills relevant to his or her assigned positions and the type(s) and/or variant(s) of aircraft on which he or she operates.

(c) Each AOC holder shall have all recurrent training conducted by suitably qualified personnel.

(d) Each AOC holder shall ensure that, every 12 months, each cabin crew member receive recurrent training in at least the following:

(1) EMERGENCY EQUIPMENT, IF APPLICABLE.

(i) Emergency communication and notification systems

(ii) Aircraft exits

(iii) Exits with slides or slide rafts (emergency operation)

(iv) Slides and slide rafts in a ditching

(v) Exits without slides (emergency operation)

(vi) Window exits (emergency operation)

(vii) Exits with tailcones (emergency operation)

(viii) Flight deck exits (emergency operation)

(ix) Ground evacuation and ditching equipment

(x) First aid equipment

(xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, PBE)

(xii) Fire fighting equipment

(xiii) Emergency lighting systems

(xiv) Additional emergency equipment

(2) EMERGENCY PROCEDURES:

(i) General types of emergencies specific to aircraft

(ii) Emergency communication signals and procedures

(iii) Rapid decompression

(iv) Insidious decompression and cracked window and pressure seal leaks

(v) Fires

(vi) Ditching

(vii) Ground evacuation

(viii) Unwarranted evacuation (i.e., passenger initiated)

(ix) Illness or injury

(x) Abnormal situations involving passengers or crew members

(xi) Turbulence

(xii) Other unusual situations

(3) EMERGENCY DRILLS.

(4) EVERY 12 MONTHS.

(i) Location and use of all emergency and safety equipment carried on the aeroplane

(ii) The location and use of all types of exits

(iii) Actual donning of a lifejacket where fitted

(iv) Actual donning of PBE

(v) Actual handling of fire extinguishers

(5) EVERY 3 YEARS.

(i) Operation of all types of exits

(ii) Demonstration of the method used to operate a slide, where fitted

(iii) Fire-fighting using equipment representative of that carried in the aeroplane on an actual or simulated fire

Note: With Halon extinguishers, an alternative method acceptable to the Authority may be used.

(iv) Effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment

(v) Actual handling of pyrotechnics, real or simulated, where fitted

(vi) Demonstration in the use of the life-raft(s), where fitted

(vii) An emergency evacuation drill

(viii) A ditching drill, if applicable

(ix) A rapid decompression drill, if applicable

(x) Survival suits, if applicable to the operation

(6) CREW RESOURCE MANAGEMENT.

(i) Decision-making skills

(ii) Briefings and developing open communication

(iii) Inquiry, advocacy, and assertion training

(iv) Workload management

(7) DANGEROUS GOODS:

(i) Recognition of and transportation of dangerous goods

(ii) Proper packaging, marking, and documentation

(iii) Instructions regarding compatibility, loading, storage and handling characteristics

(8) SECURITY.

(i) Hijacking

(ii) Disruptive passengers

(e) Each AOC holder shall verify knowledge of the recurrent training by an oral or written examination.

(f) An AOC holder, if approved by the Civil Aviation Authority, may administer each of the recurrent training curricula concurrently or intermixed, but shall record completion of each of these curricula separately.

IS 8.10.1.35 RECURRENT TRAINING – FLIGHT OPERATIONS OFFICERS

(a) Each AOC holder shall establish and maintain a recurrent training programme, approved by the Authority and established in the AOC holder's OM, to be completed annually by each FOO.

(b) Each FOO shall undergo recurrent training relevant to the type(s) and/or variant(s) of aircraft and the operations conducted by the AOC holder, and that training shall consist of at least the following hours of instruction:

(1) Reciprocating-engine aircraft – 8 hours

(2) Turbopropeller-powered aircraft – 10 hours

(3) Turbo-jet aircraft – 20 hours

(4) Other aircraft to include rotorcraft– 10 hours

(c) Each AOC holder shall have all recurrent training conducted by an appropriately qualified instructor.

(d) An AOC holder shall ensure that, every 12 months, each FOO receives recurrent training in the subjects required for initial training listed in IS: 8.10.1.14D in sufficient detail to ensure competency in each specified area of training. Operators may choose to provide in-depth coverage of selected subjects on any one cycle of training. In such cases the operator's training programme shall cover all the subjects to the detail required for initial qualification within three years.

(e) Each AOC holder shall verify knowledge of the recurrent training by an oral or written examination.

(f) An AOC holder shall record completion of the required training.

IS 8.10.1.37 INSTRUCTOR TRAINING

(a) FLIGHT CREW INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as flight instructor in a training programme unless:

(i) That person has satisfactorily completed initial or transition flight instructor training; and

(ii) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check personnel.

(2) An AOC holder may accomplish the observation check for a flight instructor, in part or in full, in an aircraft or an FSTD.

(3) Each AOC holder shall ensure that initial ground training for flight instructors includes the following:

(i) Flight instructor duties, functions, and responsibilities.

(ii) Applicable regulations and the AOC holder's policies and procedures.

(iii) Appropriate methods, procedures, and techniques for conducting the required checks.

(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training; and

(B) Personal characteristics of an applicant that could adversely affect safety.

(C) Appropriate corrective action in the case of unsatisfactory checks.

(D) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(v) Except for holders of existing flight instructor licences:

(A) The fundamental principles of the teaching-learning process;

(B) Teaching methods and procedures; and

(C) The instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for flight instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the flight instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition flight training for flight instructors includes the following:

(i) The safety measures for emergency situations that are likely to develop during instruction.

(ii) The potential results of improper, untimely, or non-execution of safety measures during instruction.

(iii) For pilot flight instructor (aircraft):

(A) Inflight training and practice in conducting flight instruction from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence as an instructor; and

(B) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during instruction.

(6) For FE instructors and FN instructors, in-flight training to ensure competence to perform assigned duties.

(7) An AOC holder may accomplish the flight training requirements for flight instructors in full or in part in flight or in an FSTD, as appropriate.

(8) An AOC holder shall ensure that the initial and transition flight training for flight instructors (flight simulation training device) includes the following:

(i) Training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this part. This training and practice shall be accomplished in full or in part in an FSTD.

(ii) Training in the operation FSTDs, to ensure competence to conduct the flight instruction required by this Part.

(b) CABIN CREW INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as cabin instructor in a training programme unless:

(i) That person has satisfactorily completed initial or transition cabin instructor training; and

(ii) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check airman.

(2) An AOC holder may accomplish the observation check for a cabin instructor, in part or in full, in an aircraft or a cabin simulation training device.

(3) Each AOC holder shall ensure that initial ground training for cabin instructors includes the following:

(i) Cabin instructor duties, functions, and responsibilities.

(ii) Applicable regulations and the AOC holder's policies and procedures.

(iii) Appropriate methods, procedures, and techniques for conducting the required checks.

(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training; and

(B) Personal characteristics of an applicant that could adversely affect safety.

(v) Appropriate corrective action in the case of unsatisfactory checks.

(vi) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft, as applicable.

(vii) Except for existing cabin instructors:

(A) The fundamental principles of the teaching-learning process;

(B) Teaching methods and procedures; and

(C) The instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for cabin instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft, as appropriate to which the cabin instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition flight training for cabin instructors includes the following:

(i) The safety measures for emergency situations that are likely to develop during instruction.

(ii) The potential results of improper, untimely, or non-execution of safety measures during instruction.

(c) FLIGHT OPERATIONS OFFICER INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as FOO instructor in a training programme unless:

(i) That person has satisfactorily completed initial or transition FOO instructor training; and

(ii) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check FOO.

(2) An AOC holder may accomplish the observation check for a FOO instructor, in part or in full, in a flight operations centre.

(3) Each AOC holder shall ensure that initial ground training for FOO instructors includes the following:

(i) FOO instructor duties, functions, and responsibilities.

(ii) Applicable regulations and the AOC holder's policies and procedures.

(iii) Appropriate methods, procedures, and techniques for conducting the required checks.

(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training; and

(B) Personal characteristics of an applicant that could adversely affect safety.

(v) Appropriate corrective action in the case of unsatisfactory checks.

(vi) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures for the aircraft or position involved.

(vii) Except for holders of existing FOO instructor licences:

(A) The fundamental principles of the teaching-learning process;

(B) Teaching methods and procedures; and

(C) The instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for FOO instructors includes the approved methods, procedures and limitations for performing the required normal, abnormal and emergency procedures applicable to the aircraft or position involved to which the FOO instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition training for flight operations officer instructors includes the following:

(i) The safety measures for emergency situations that are likely to develop during instruction in a flight operations centre.

(ii) The potential results of improper, untimely or non-execution of safety measures during instruction in a flight operations centre.

(d) DANGEROUS GOODS INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as dangerous goods instructor in a training programme unless:

(i) That person has satisfactorily completed dangerous goods training in the applicable dangerous goods category prior to delivering such a dangerous goods training programme.

(ii) That person has within the preceding 24 calendar months, satisfactorily conducted initial or recurrent instructions or in the absence undergoes recurrent training.

IS 8.10.1.40 CHECK PERSONNEL TRAINING

(a) TRAINING FOR CHECK PERSONNEL – GENERAL.

(1) No operator may use a person, nor may any person serve as a check person in a training programme unless, with respect to the aircraft type involved, that person has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as PIC, FE, navigator, cabin crew member, or FOO, as applicable.

(2) Each AOC holder shall ensure that initial ground training for check personnel includes:

(i) Check personnel duties, functions, and responsibilities.
(ii) Applicable regulations and the AOC holder's policies and procedures.
(iii) Appropriate methods, procedures, and techniques for conducting the required checks.
(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training.

(v) Personal characteristics of an applicant that could adversely affect safety.

(A) Appropriate corrective action in the case of unsatisfactory checks.
(B) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(3) Transition ground training for all check personnel, shall include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the check person is in transition.

(b) TRAINING FOR CHECK PERSONNEL OF FLIGHT CREW.

(1) For check persons, each AOC holder shall ensure that the initial and transition flight training includes:

(i) Training and practice in conducting flight evaluations (from the left and right pilot seats for pilot check persons in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks.
(ii) The potential results of improper, untimely or non-execution of safety measures during an evaluation.
(iii) The safety measures (to be taken from either pilot seat for check persons for emergency situations that are likely to develop during an evaluation.

(2) For check persons and check flight navigators, each AOC holder shall ensure training to ensure competence to perform assigned duties to include:

(i) The safety measures for emergency situations that are likely to develop during a check.
(ii) The potential results of improper, untimely or non-execution of safety measures during a check.

(3) Each AOC holder shall ensure that the initial and transition flight training for check personnel (simulator) includes:

(i) Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the checks required by this part (this training and practice shall be accomplished in an FSTD).
(ii) Training in the operation of FSTDs, to ensure competence to conduct the checks required by this Part.

(4) An AOC holder may accomplish flight training for check personnel, in full or in part in an aircraft or in an FSTD, as appropriate.
(5) The AOC holder shall record the training in each individuals training record maintained by the AOC holder.

(c) TRAINING FOR CHECK CABIN CREW MEMBERS.

(1) For check cabin crew members, each AOC holder shall ensure that the training includes:

(i) The safety measures for emergency situations that are likely to develop during a check; and
(ii) The potential results of improper, untimely or non-execution of safety measures during a check.

(d) TRAINING FOR CHECK FLIGHT OPERATIONS OFFICERS.

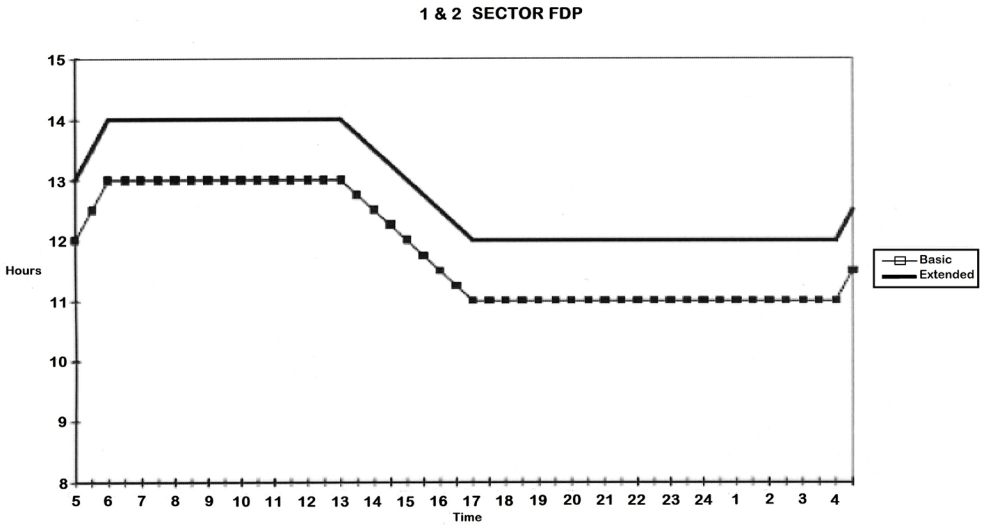
(1) For check FOO, each AOC holder shall ensure that the training includes:

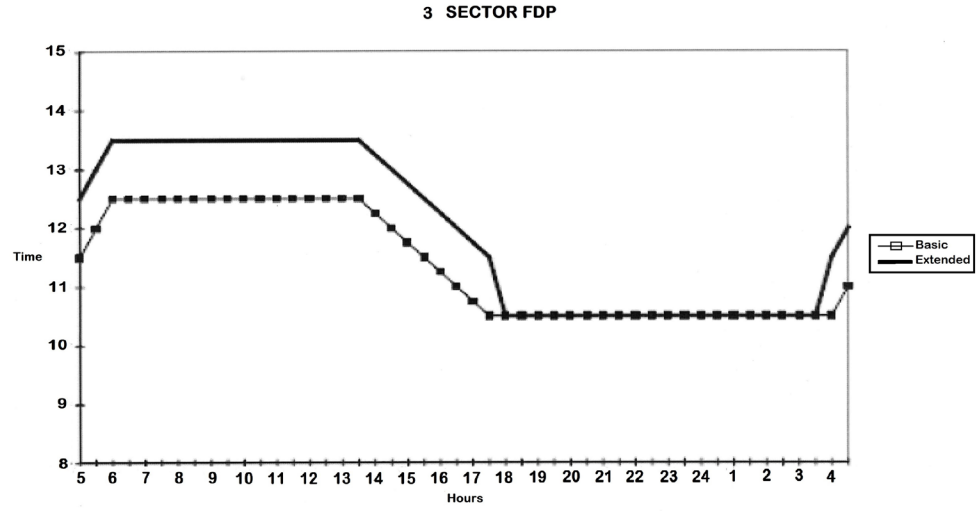
(i) The safety measures for emergency situations that are likely to develop during a check; and
(ii) The potential results of improper, untimely or non-execution of safety measures during a check.

(2) The AOC holder shall record the training in each individuals training record maintained by the AOC holder.

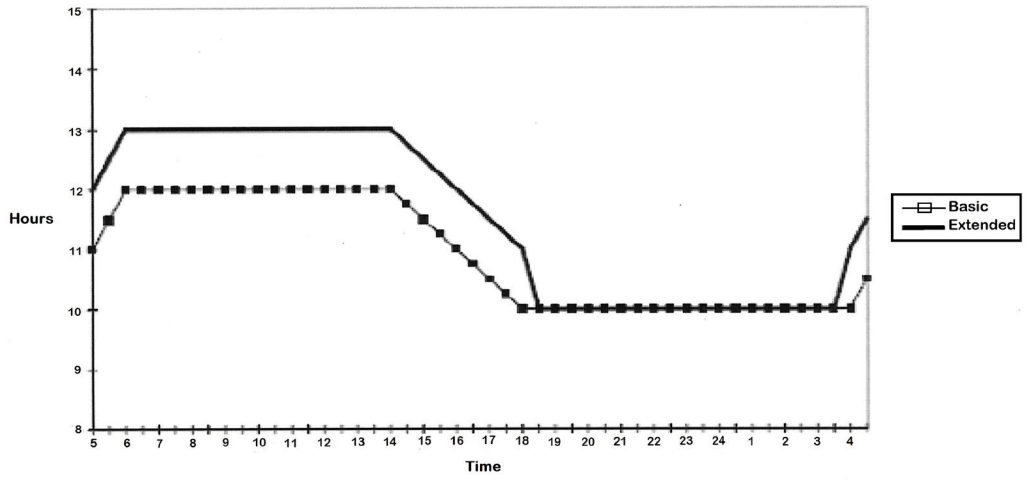
IS 8.12.1.4 DUTY AND REST PERIODS

Each AOC holder, scheduling official and crew member shall use the following tables as appropriate, to consolidate all scheduling and actual event requirements with respect to crew member flight time, duty and rest periods for commercial air transport operations.

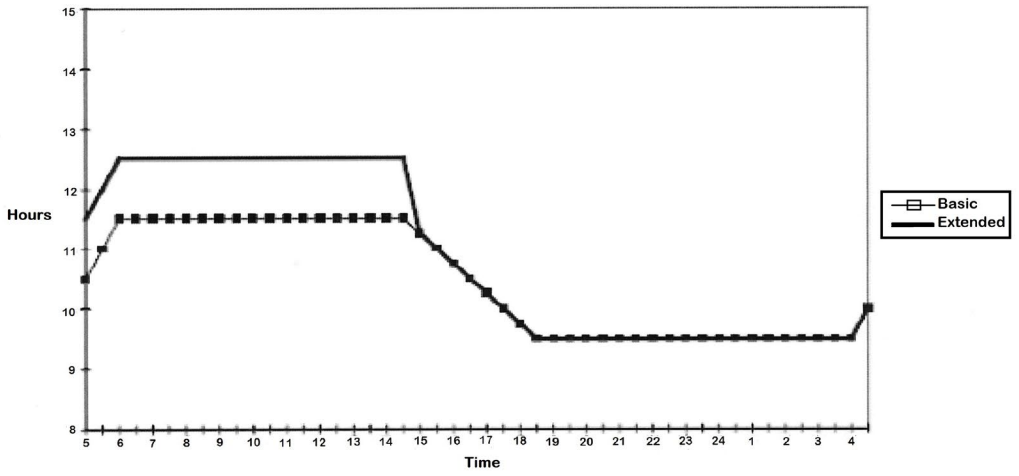




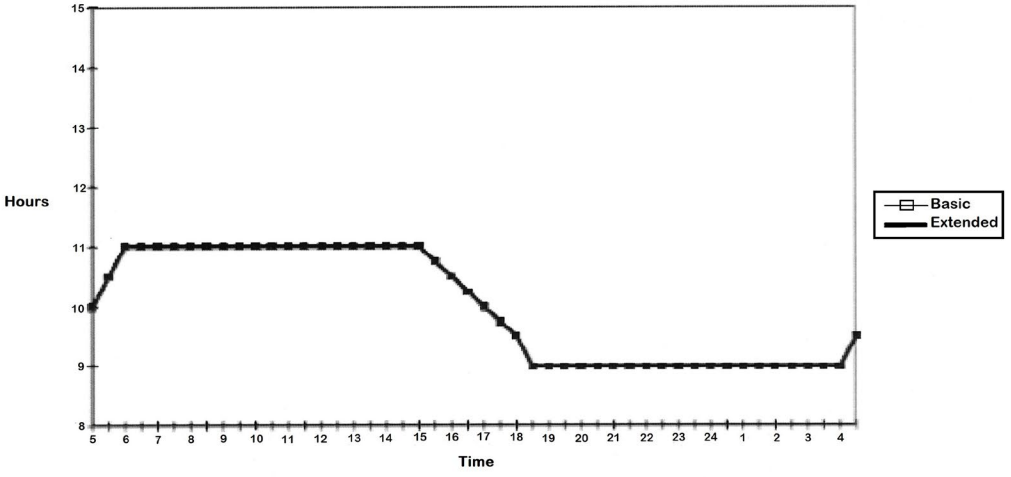
4 SECTOR FDP



5 SECTOR FDP



6 SECTOR FDP



CURAÇAO CIVIL AVIATION REGULATIONS

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PART 9 – AIR OPERATOR CERTIFICATION AND ADMINISTRATION

9.1 GENERAL

9.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for the carriage by air of passengers, cargo, or mail for remuneration or hire by persons or organisations whose principal place of business or permanent residence is located in Curaçao.

(b) Except where specifically noted, this part applies to all commercial air transport operations by AOC holders for which Curaçao is the State of the Operator under the definitions provided in ICAO Annex 6 and Part 1 of these regulations.

9.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

9.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AC –** Advisory Circular

(2) **ACAS –** airborne collision avoidance system

(3) **AD –** Airworthiness Directive

(4) **AFM –** Aircraft Flight Manual

(5) **AMO –** approved maintenance organisation

(6) **AMT –** aviation maintenance technician

(7) **AOC –** air operator certificate

(8) **AOM –** Aircraft Operating Manual

(9) **ATC –** air traffic control

(10) **ATPL –** air transport pilot licence

(11) **ATS –** air traffic service

(12) **CAST –** Commercial Aviation Safety Team

(13) **CAT I –** Category I

(14) **CAT II –** Category II

(15) **CAT III –** Category III

(16) **CCAA –** Curaçao Civil Aviation Authority

(17) **CDL –** configuration deviation list

(18) **DH –** decision height

(19) **EDTO –** extended diversion time operation

(20) **EFB –** electronic flight bag

(21) **EVS –** enhanced vision system

(22) **FAA –** Federal Aviation Administration

(23) **FDAP –** flight data analysis programme

(24) **FDR –** flight data recorder

(25) **FOO –** flight operations officer

(26) **FRMS –** fatigue risk management system

(27) **HUD –** head-up display

(28) **ICAO –** International Civil Aviation Organization

(29) **IMC –** instrument meteorological conditions

(30) **IS –** Implementing Standard

(31) **MCM –** Maintenance Control Manual

(32) **MEL –** minimum equipment list

(33) **OM –** Operations Manual

(34) **PBN –** performance-based navigation

(35) **PIC –** pilot-in-command

(36) **RFFS –** rescue and fire fighting service

(37) **RNP –** required navigation performance

(38) **RVR –** runway visual range

(39) **SMM –** Safety Management Manual

(40) **SMS –** safety management system

(41) **SOP –** standard operating procedure

(42) **ULD –** unit load device

(43) **VFR –** visual flight rules

9.1.1.4 EXEMPTION AUTHORITY

(a) The Authority may, upon consideration of the circumstances of a particular operator, issue an exemption providing relief from specified sections of this part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.

(b) The Authority may terminate or amend an exemption at any time.

(c) A request for exemption shall be made in accordance with the requirements of Part 1 of these regulations.

(d) Each operator that receives an exemption shall have a means of notifying the appropriate management and personnel of the exemption.

9.2 AIR OPERATOR CERTIFICATE

9.2.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for the certification of an air operator and the continued validity of the AOC issued by Curaçao.

9.2.1.2 GENERAL

(a) No person or organisation may operate as a certificated air operator without, or in violation of, an AOC and its associated operations specifications issued under this part.

(b) Each certificated air operator shall, at all times, continue in compliance with the AOC terms, conditions of issuance, and continuing airworthiness requirements in order to hold that certificate. Failure to comply may result in the revocation or suspension of the AOC.

(c) Each certificated air operator shall develop policies and procedures for third parties that perform work on its behalf.

9.2.1.3 CONTENTS OF AN AOC

(a) The AOC issued to an air operator by Curaçao will consist of two documents:

(1) A one-page certificate for public display signed by the Authority; and

(2) Operations specifications signed by the executive manager and the Authority.

(b) The certificate will contain the following items and will be issued on a form and in a manner as prescribed in IS 9.2.1.3(B):

(1) The State of the Operator and the Issuing Authority;

(2) The AOC number and its expiration date;

(3) The operator name, trading name (if different), and address of the principal place of business;

(4) Telephone, facsimile, and email;

(5) The location, in a controlled document carried on board, where the contact details of operational management can be found; and

(6) The date of issue and the name, signature, and title of the Authority representative.

(c) The operations specifications will contain the following and will be issued on a form and in a manner as prescribed in IS 9.2.1.3(C):

(1) The Issuing Authority contact details;

(2) The operator name, trading name (if different), and AOC number;

(3) The date of issue and signature of the Authority representative;

(4) The make, model, and series of each aircraft in the operator's fleet;

(5) Types and areas of operation; and

(6) The special limitations and specific approvals.

Note: If the specific approvals and special limitations are identical for two or more models, these models may be grouped in a single list.

(d) When the AOC and associated operations specifications are issued by the State of the Operator in a language other than English, an English translation will be included.

(e) Each AOC holder shall carry on board its aircraft a certified true copy of the AOC and a copy of the associated operations specifications relevant to the aircraft.

(f) The air operator certificates and their associated operations specifications first issued from 20 November 2008 shall follow the layouts prescribed in IS 9.2.1.3(B) and IS 9.2.1.3(C).

9.2.1.4 ADVERTISING

(a) No person or organisation may advertise as a certificated air operator under this part until the Authority of Curaçao has issued an AOC and associated operations specifications to that person or organisation.

(b) No certificated air operator may make, either orally or in writing, any statement about itself that is false or designed to mislead any person.

(c) Whenever the advertising of an air operator indicates that the air operator is certificated under this part, the advertisement shall clearly state the AOC number.

9.2.1.5 APPLICATION FOR AN AOC

(a) An application for an AOC shall be made in a form and manner prescribed by the Authority.

(b) Each applicant shall submit an application for the initial issue of an AOC at least 90 days before the date of intended operations.

(c) At the time of application, the applicant shall provide all the information and manuals required under this part, the SMS documentation required by Part 1 of these regulations, and any additional information the Authority requires the applicant to submit.

9.2.1.6 ISSUANCE OR DENIAL OF AN AOC

(a) The issue of an AOC by Curaçao will be dependent upon the operator demonstrating compliance with the requirements of this part and the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority.

(b) The Authority may issue an AOC if, after investigation, the Authority finds that the applicant:

(1) Is a citizen of Curaçao;

(2) Has its principal place of business and its registered office, if any, located in Curaçao;

(3) Meets the applicable regulations and standards for the holder of an AOC;

(4) Is properly and adequately equipped for safe operations in commercial air transport and maintenance of its aircraft; and

(5) Holds the economic authority issued by Curaçao under the provisions of the Civil Aviation Safety Act, as amended.

(c) The Authority may deny an application for an AOC if it finds that:

(1) The applicant is not properly or adequately equipped, is not able to safe operations in commercial air transport, or is not able to maintain its aircraft;

(2) The applicant previously held an AOC that was revoked; or

(3) A person who contributed to the circumstances causing the revocation process of an AOC obtains a substantial ownership in the applicant or is employed by the applicant in a position required by this part.

9.2.1.7 DURATION AND RENEWAL OF AN AOC

(a) An AOC issued by the Authority is effective for 36 months unless:

(1) The Authority amends, suspends, revokes, or otherwise terminates the certificate;

(2) The AOC holder surrenders the certificate to the Authority; or

(3) The AOC holder suspends operations for more than 90 days.

(b) An AOC holder shall make application for renewal of an AOC at least 30 days before the end of the existing period of validity.

9.2.1.8 CONTINUED VALIDITY OF AN AOC

(a) Unless an AOC has previously been surrendered, superseded, suspended, or revoked, or has expired by virtue of exceeding any expiration date that may be specific in the certificate, the continued validity of the AOC issued by Curaçao shall depend on:

(1) The operator maintaining the requirements of the original certification, as amended, under the supervision of Curaçao; and

(2) The operator remaining in compliance with the requirements of this part and the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority.

9.2.1.9 ACCESS FOR INSPECTION

(a) At any time or place, the Authority may conduct an inspection or test to determine whether an AOC holder certificated under this part is in continued compliance with the Civil Aviation Safety Act, as amended, the applicable regulations, the AOC, or the AOC holder's operations specifications.

(b) Each AOC holder shall:

(1) Grant the Authority access to and cooperation with any of the AOC holder's organisations, facilities, and aircraft;

(2) Ensure that the Authority is granted access to and cooperation with any organisation or facilities that the AOC holder has contracted for services associated with commercial air transport operations or maintenance; and

(3) Grant the Authority free and uninterrupted access to the flight deck of the aircraft during flight operations.

(c) Each AOC holder shall provide to the Authority a forward observer's seat on each of the AOC holder's aircraft, from which the flight crew's actions and conversations may be easily observed.

Note: The suitability of the seat location and the ability to monitor crew member actions, conversations, and radio communications will be determined by the Authority.

9.2.1.10 AUTHORITY TO INSPECT

(a) The Authority will conduct ongoing validation of the AOC holder's continued eligibility to hold its AOC and associated operations specifications.

(b) The Authority may conduct tests and inspections, at any time or place, to determine the AOC holder's continued compliance with the Civil Aviation Safety Act, as amended, and these regulations and the specific approvals, conditions, and limitations issued to the AOC holder.

(c) The AOC holder shall make available at its main base of operations:

(1) All portions of its current AOC;

(2) All portions of its OM and MCM; and

(3) A current listing that includes the location of, and the person(s) responsible for, each record, document, and report required to be kept by the AOC holder under the Civil Aviation Safety Act, as amended, and these regulations.

(d) Failure by any AOC holder to make available to the Authority, upon request, all portions of the AOC, OM, MCM, and any required record, document, or report is grounds for suspension of all or part of the AOC.

9.2.1.11 AMENDMENT OF AN AOC

(a) The Authority may amend any AOC if:

(1) The Authority determines that safety in commercial air transport and the public interest require the amendment; or

(2) The AOC holder applies for an amendment and the Authority determines that safety in commercial air transport and the public interest allow the amendment.

(b) If the Authority stipulates in writing that an emergency exists requiring immediate amendment of the AOC in the public interest with respect to safety in commercial air transport, such an amendment is effective without stay on the date the AOC holder receives notice.

(c) An AOC holder may appeal an amendment but shall operate in accordance with the amendment unless it is subsequently withdrawn.

(d) Amendments proposed by the Authority, other than emergency amendments, become effective 30 days after notice to the AOC holder, unless the AOC holder appeals the proposal in writing prior to the effective date. The filing of an appeal stays the effective date until the appeal process is completed.

(e) Amendments proposed by the AOC holder shall be made at least 30 days prior to the intended date of any operation under that amendment.

(f) No person or organisation may perform a commercial air transport operation for which an AOC amendment is required unless that person or organisation has received notice of the approval from the Authority.

9.3 AOC ADMINISTRATION

9.3.1 APPLICABILITY

(a) This subpart prescribes the requirements for the administration of an AOC holder, including the AOC holder's organisational structure, policy and procedures, facilities, management personnel, aircraft to be used, quality system, SMS, record keeping and documents systems, and operational or emergency demonstrations.

9.3.2 GENERAL

9.3.2.1 MAIN BASE OF OPERATIONS

(a) Each AOC holder that is not authorised to conduct maintenance under its AOC shall maintain a main base of operations.

(b) Each AOC holder that is authorised to conduct maintenance under its AOC shall maintain a main base of operations and a main base of maintenance.

(c) An AOC holder may establish a main base of operations and a main base of maintenance at the same location or at separate locations.

(d) Each AOC holder shall provide written notification of intent to the Authority at least 30 days before it proposes to establish or change the location of either base.

9.3.2.2 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(a) Each AOC holder shall have an executive manager, acceptable to the Authority, who has corporate authority for ensuring that all flight operations and maintenance activities can be financed and carried out to the highest degree of safety required by the Authority.

(b) Each AOC holder shall have qualified personnel, with proven competency in civil aviation, available and serving full-time in the following positions or their equivalent:

(1) Accountable executive.

(2) Operations manager.

(3) Chief pilot.

(4) Safety manager.

(5) Continuing Airworthiness manager.

(6) Chief inspector.

(7) Fleet manager(s), if applicable.

(8) Cabin crew manager, if applicable.

(9) Training manager.

(10) Ground services manager.

(11) Quality manager.

(12) Security manager.

Note 1: "Competency in civil aviation" means that a person shall have a technical qualification and management experience acceptable to the Authority for the position served.

Note 2: The chief inspector is responsible for quality control, as opposed to quality assurance, and is not to be confused with the quality manager under the quality system.

(c) The Authority may approve positions or numbers of positions other than those listed in paragraph

9.3.2.2(b) of this subsection if the AOC holder is able to show that it can perform the operations with the highest degree of safety under the direction of fewer or different categories of management personnel due to:

(1) The types of operation involved;

(2) The number and type of aircraft used; and

(3) The areas of operation.

(d) Additional management personnel requirements are contained in IS 9.3.2.2.

(e) The persons who serve in the positions required or approved under this subsection and any person in a position to exercise control over operations conducted under the AOC shall:

(1) Be qualified through training, experience, and expertise;

(2) Discharge their duties to meet applicable legal requirements and to maintain safe operations; and

(3) To the extent of their responsibilities, have a full understanding of the following materials with respect to the AOC holder's operation:

(i) Aviation safety standards and safe operating practices;

(ii) These regulations;

(iii) The AOC holder's operations specifications;

(iv) All appropriate maintenance and airworthiness requirements of this part; and

(v) The manuals required by this part.

(f) Each AOC holder shall:

(1) State in the general policy provisions of its OM the duties, responsibilities, and authority of the positions required by this subsection;

(2) List in its OM the names and business addresses of the persons assigned to those positions; and

(3) Notify the Authority within 10 days of any change in personnel or any vacancy in any position listed.

9.3.2.3 QUALITY SYSTEM

(a) Each AOC holder shall establish a quality system and designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure safe operational practices and airworthy aircraft. Compliance monitoring shall include a feedback system to the executive manager to ensure corrective action as necessary.

(b) Each AOC holder shall ensure that the quality system includes a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards, and procedures.

(c) The quality system and the quality manager shall be acceptable to the Authority.

(d) Each AOC holder shall describe its quality system in relevant documentation, as prescribed in IS 9.3.2.3.

(e) Notwithstanding paragraph 9.3.2.3(a) of this subsection, the Authority may accept the nomination of two quality managers, one for operations and one for maintenance, provided that the AOC holder has designated one Quality Management Unit to ensure that the quality system is applied uniformly throughout the entire operation.

(f) Where the AOC holder is also an AMO, the AOC holder's quality system may be combined with the requirements of an AMO and submitted for acceptance to the Authority and, for aircraft not registered in Curaçao, to the State of Registry.

9.3.2.4 SUBMISSION AND REVISION OF POLICY AND PROCEDURE MANUALS

(a) Each manual required by this part shall:

(1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(2) Be in a form that is easy to revise;

(3) Contain a system that allows personnel to determine the current revision status of each manual;

(4) Have the date of the last revision on each page concerned;

(5) Not be contrary to any applicable Curaçao regulation or the AOC holder's operations specifications; and

(6) Include references to appropriate regulations.

(b) No person may cause the use of any policy or procedure for flight operations or airworthiness functions prior to coordination with the Authority.

(c) The AOC holder shall submit each proposed policy or procedure to the Authority at least 30 days prior to the date of intended implementation.

(d) Copies of all amendments to the manuals shall be furnished promptly to all organisation or persons to whom the manuals has been issued.

9.3.2.5 RETENTION OF RECORDS

(a) Each AOC holder shall retain the following records for the period prescribed in IS 9.3.2.5:

(1) Flight crew records, including:

(i) Flight, duty, and rest time;

(ii) Licence and medical certificate;

(iii) Ground and flight training (all types);

(iv) Route and aerodrome/heliport qualification training;

(v) Dangerous goods training;

(vi) Security training; and

(vii) Proficiency and qualification checks (all types).

(2) Cabin crew records, including:

(i) Flight, duty, and rest time;

(ii) Licence, if applicable;

(iii) Ground and flight training (all types) and qualification checks;

(iv) Dangerous goods training;

(v) Security training; and

(vi) Competency checks.

(3) AOC holder personnel records, including:

(i) Training and qualification of other personnel for whom an approved training programme is required in these regulations;

(ii) License, if required, and medical certificate, if required; and

(iii) Proficiency or competency checks, if required.

(4) Flight preparation forms, including:

(i) Completed load manifests;

(ii) Mass and balance reports;

(iii) Dispatch releases;

(iv) Flight plans;

(v) Passenger manifests; and

(vi) Weather reports.

(5) An aircraft technical log, including a:

(i) Journey records section;

(ii) Continuing airworthiness records section; and

(iii) Flight recorder records:

(A) Cockpit voice recordings; and

(B) Flight data records.

(6) Aircraft continuing airworthiness records, including:

(i) The total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts;

(ii) The current status of compliance with all mandatory continuing airworthiness information;

(iii) Appropriate details of modifications and repairs to the aircraft and aeronautical products;

(iv) The total time in service (hours, calendar time, and cycles, as appropriate) since the last overhaul of the aircraft or aeronautical products subject to a mandatory overhaul life;

(v) The current status of the aeroplane's compliance with the maintenance programme; and

(vi) Detailed maintenance records to show all requirements for approval to return to service have been met.

(7) Other records, including:

(i) Operational flight plan;

(ii) Quality system records;

(iii) Dangerous goods transport documents;

(iv) Dangerous goods acceptance checklists; and

(v) Records on cosmic and solar radiation dosage, if the AOC holder operates aircraft that fly above 15,000 m.

(b) For the records identified in paragraphs 9.3.2.5(a)(1), (2), and (3) of this subsection, the AOC holder shall maintain:

(1) Current records that detail the qualifications and training of all its personnel and contract employees involved in the operational control, flight operations, ground operations, and maintenance of the air operator; and

(2) In sufficient detail to determine whether the persons meet the experience and qualification requirements for duties in commercial air transport operations, records for those employees performing crew member or FOO duties.

(c) Each AOC holder shall maintain records in a manner acceptable to the Authority.

9.3.2.6 COCKPIT VOICE RECORDER AND FLIGHT DATA RECORDER RECORDS

(a) Each AOC holder shall retain:

(1) The most recent FDR calibration, including the recording medium from which this calibration is derived; and

(2) The FDR correlation for one aircraft of any group of aircraft operated by the AOC holder:

(i) That are of the same type;

(ii) On which the model flight recorder and its installation are the same; and

(iii) On which there is no difference in type design with respect to the original installation of instruments associated with the recorder.

Note: The FDR calibration and the FDR correlation will be kept as part of the continuing airworthiness records for the aircraft and aeronautical products.

(b) In the event of an accident or incident requiring immediate notification to the Authority, the AOC holder shall remove and keep recorded information from the cockpit voice recorder and FDR for at least 60 days or, if requested by the Authority, for a longer period.

9.3.2.7 AIRCRAFT OPERATED BY THE AOC HOLDER

(a) The AOC holder shall list in its operations specifications the following:

(1) Issuing Authority contact details;

(2) Operator name and AOC number;

(3) Date of issue and signature of the Authority representative;

(4) Aircraft make, model, and series;

(5) Types and areas of operation; and

(6) The special limitations and specific approvals issued.

(b) Each AOC holder shall apply to the Authority for an amendment to its operations specifications in advance of any intended change of aircraft.

(c) Aircraft of another certificate holder operated under an interchange agreement shall be incorporated into the AOC holder's operations specifications as required by paragraph 9.3.2.7(a) of this subsection.

9.3.2.8 AIRCRAFT TECHNICAL LOG

(a) Each AOC holder shall have an aircraft technical log that is carried on the aircraft and contains a journey records section and an aircraft continuing airworthiness records section. The journey records section is further described in 9.4.1.5 of this part, and the aircraft continuing airworthiness records section is further described in 9.5.1.9 of this part.

Note: The aircraft technical log may be computerised. The journey records section and the continuing airworthiness records section may be combined.

9.3.2.9 COMPANY PROCEDURES INDOCTRINATION

(a) No person may serve in an AOC holder's employ, nor may any AOC holder use a person in its employ, unless that person has completed the approved company indoctrination curriculum appropriate to that person's duties and responsibilities.

(b) The indoctrination curriculum shall include training in knowledge and skills related to human performance, including coordination with other air operator personnel.

Note: Indoctrination, initial, recurrent, and other training required for crew members and FOOs/flight dispatchers are contained in Part 8 of these regulations.

9.3.2.10 SAFETY MANAGEMENT SYSTEM

(a) An AOC holder shall implement an SMS acceptable to the Authority as outlined in 1.6 of these regulations.

(b) An AOC holder operating an aeroplane with a maximum certificated take-off mass over 27,000 kg (44 092 lbs.) shall establish and maintain an for the use and guidance of operational personnel as part of its SMS.

(c) An AOC holder operating a helicopter with a maximum certificated take-off mass over 7,000 kg or having a passenger seating configuration of more than nine and fitted with an FDR shall establish and maintain an FDAP for the use and guidance of operational personnel as part of its SMS.

(d) The AOC holder's FDAP shall be non-punitive and shall contain adequate safeguards to protect the source(s) of data.

Note 1: An operator may contract the operation of an FDAP to another party while retaining overall responsibility for the maintenance of such a programme.

Note 2: Guidance on the establishment of an FDAP is included in ICAO Doc 10000, Manual on Flight Data Analysis Programmes (FDAP).

Note 3: Provisions on the protection of safety data, safety information, and related sources are contained in ICAO Annex 19, Appendix 3.

9.3.2.11 FLIGHT SAFETY DOCUMENTS SYSTEM

(a) An AOC holder shall establish a flight safety documents system for the use and guidance of operational personnel as part of its SMS.

(b) An AOC holder's flight safety documents system shall contain the minimum elements of the outline prescribed in IS 9.3.2.11.

9.3.3 AIRCRAFT

9.3.3.1 AUTHORISED AIRCRAFT

(a) No person shall operate an aircraft in commercial air transport unless that aircraft has an appropriate current certificate of airworthiness, is in an airworthy condition, and meets the applicable airworthiness requirements for these operations, including those related to identification and equipment.

(b) No person shall operate any specific type of aircraft in commercial air transport until that aircraft has completed satisfactory initial certification, which includes the issuance of operations specifications to the AOC holder listing that type of aircraft.

(c) No person shall operate additional or replacement aircraft of a type for which the AOC holder is currently authorised unless it can show that each aircraft has completed an evaluation process for inclusion in the AOC holder's fleet.

9.3.3.2 DRY LEASING OF FOREIGN-REGISTERED AIRCRAFT

(a) An AOC holder may dry lease a foreign-registered aircraft for commercial air transport as authorised by the Authority.

(b) No person may be authorised to operate a foreign-registered aircraft unless:

(1) There is in existence a current agreement between the Authority and the State of Registry that;

(i) while the aircraft is operated by the Curaçao AOC holder, the operations regulations of Curaçao are applicable; and

(2) There is in existence a current agreement between the Authority and the State of Registry acknowledging that:

(i) While the aircraft is operated by the AOC holder, the airworthiness regulations of the State of Registry are applicable; or

(ii) If the State of Registry agrees to transfer some or all of the responsibility for airworthiness to the Authority of Curaçao under Article 83 *bis* of the Chicago Convention, the airworthiness regulations of Curaçao shall apply to the extent agreed upon by the Authority and the State of Registry.

(3) The Authority of the State of Registry shall have free and uninterrupted access to the aircraft at any place and at any time.

(4) By derogation to sub-paragraphs (b)(1) and (b)(2), in relation to an N-registered aircraft, an FAA Foreign Operations Specifications listing the aircraft registration marks may be used.

(5) By derogation to sub-paragraphs (b)(1) and (b)(2), in relation to an N-registered aircraft, Federal Aviation Regulations, FAR Part 129.14 and Advisory Circular, AC 129-4A is applicable and constitutes an agreement.

(c) Additional requirements for dry leasing of foreign-registered aircraft are prescribed in IS 9.3.3.2.

9.3.3.3 AIRCRAFT INTERCHANGE

(a) No AOC holder may interchange aircraft with another AOC holder without the approval of the Authority.

(b) Requirements pertaining to aircraft interchange agreements approved by the Authority are prescribed in IS 9.3.3.3.

9.3.3.4 WET LEASING

(a) No person or organization may conduct wet lease operations on behalf of another AOC holder except in accordance with the applicable laws and regulations of the country in which the operation occurs and in accordance with the specific approvals, conditions, and limitations imposed by the Authority of Curaçao.

(b) No person or organization may allow another AOC holder to conduct wet lease operations on its behalf unless:

(1) That person or organisation holds an AOC or its equivalent from a Contracting State that authorises those operations; and

(2) The AOC holder advises the Authority of Curaçao of such operations and provides a copy of the AOC under which the operation is to be conducted.

(c) Additional requirements for wet leasing aircraft are prescribed in IS 9.3.3.4.

9.3.3.5 EMERGENCY EVACUATION DEMONSTRATION

(a) No person shall use an aircraft type and model in passenger-carrying commercial air transport operations unless that person has first conducted for the Authority an actual full-capacity emergency evacuation demonstration for the configuration in 90 seconds or less.

(b) The actual full-capacity emergency evacuation demonstration may not be required if the AOC holder provides a written petition for deviation with evidence that:

(1) A satisfactory full-capacity emergency evacuation for the aircraft to be operated was demonstrated during the aircraft type certification or during the certification of another air operator; and

(2) There is an engineering analysis that shows that an evacuation is still possible within the 90-second standard if the AOC holder's aircraft configuration differs with regard to the number of exits or the exit type or the number of cabin crew members or the location of the cabin crew members.

(c) If a full-capacity emergency evacuation demonstration is not required, no person may use an aircraft type and model in passenger-carrying commercial air transport operations unless that person has first demonstrated to the Authority that its available personnel, procedures, and equipment will provide sufficient open exits for evacuation in 15 seconds or less.

(d) No person shall use a land aeroplane in extended overwater operations unless that person has first conducted a ditching evacuation demonstration to the Authority showing that it has the ability and equipment to efficiently carry out its ditching procedures.

(e) (h) Additional requirements concerning emergency evacuation demonstrations are prescribed in IS 9.3.3.5.

9.3.3.6 DEMONSTRATION FLIGHTS

(a) No person may operate an aircraft type in commercial air transport unless that person first conducts satisfactory demonstration flights for the Authority in that aircraft type.

(b) No person may operate an aircraft in a designated special area, or using a specialised navigation system, unless that person conducts a satisfactory demonstration flight for the Authority.

(c) Demonstration flights required by paragraph 9.3.3.6(a) of this subsection shall be conducted in accordance with the regulations applicable to the type of operation and aircraft used.

(d) The number of hours and the type of demonstration flights shall be conducted in accordance with IS 9.3.3.6.

9.3.4 FACILITIES AND OPERATIONS SCHEDULES

9.3.4.1 FACILITIES

(a) Each AOC holder shall maintain operational and airworthiness support facilities at its main base of operations, appropriate for the type(s) and area(s) of operation.

(b) Each AOC holder shall arrange appropriate ground handling facilities at each aerodrome used to ensure the safe servicing and loading of its flights.

(c) No AOC holder may commence a flight unless it has ascertained by every reasonable means available that the ground and/or water facilities available and directly required on such flight, for the safe operation of the aircraft and the protection of the passengers, are adequate for the type of operation under which the flight is to be conducted and are adequately operated for this purpose.

Note: "Reasonable means" is intended to denote the use, at the point of departure, of information available to the AOC holder either through official information published by the aeronautical information services or readily available from other sources.

(d) Each AOC holder shall ensure that any inadequacy of facilities observed in the course of operations is reported to the authority responsible without delay.

(e) Each AOC holder shall, as part of its SMS, assess the level of RFFS protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aircraft intended to be used.

(f) Each AOC holder shall include in its OM information related to the level of RFFS protection that is deemed acceptable.

Note: ICAO Annex 6, Part I, Attachment I, contains guidance on assessing an acceptable level of RFFS protection at aerodromes.

9.3.4.2 OPERATIONS SCHEDULES

(a) In establishing flight operations schedules, each AOC holder conducting scheduled operations shall allow enough time for the proper servicing of aircraft at intermediate stops and shall consider the prevailing winds en route and the cruising speed of the type of aircraft used. This cruising speed may not be more than that resulting from the specified cruising output of the engines.

9.4 AOC FLIGHT OPERATIONS MANAGEMENT

9.4.1.1 APPLICABILITY

(a) This subpart provides those certification requirements that apply to the management of flight operations personnel and their functions.

9.4.1.2 OPERATIONS MANUAL

(a) Each AOC holder shall issue, to crew members and persons assigned operational control functions, an OM acceptable to the Authority.

(b) The OM shall contain the overall (general) company policies and procedures regarding the flight operations the AOC holder conducts.

(c) Each AOC holder shall prepare and keep current an OM that contains the AOC holder's policies and procedures for the use and guidance of its personnel.

(d) Each AOC holder shall issue the OM or pertinent portions of the OM, together with all amendments and revisions, to all personnel that are required to use it.

(e) No AOC holder may provide for use by its personnel in commercial air transport any OM or portion of an OM that has not been reviewed and found acceptable or approved for the AOC holder by the Authority.

(f) Each AOC holder shall ensure that the contents of the OM include at least those subjects designated by the Authority that are applicable to the AOC holder's operations.

(g) The OM shall contain the specific areas listed below and may be issued in separate parts:

(1) General, as prescribed in IS 9.4.1.2(G);

(2) AOM, as prescribed in 9.4.1.4 of this part and in IS 9.4.1.4;

(3) Route Guide – Areas, Routes, Aerodromes, and Heliports, as prescribed in 9.4.1.20 of this part and in IS 9.4.1.20; and

(4) Training Manual, as prescribed in 9.4.1.3 of this part and in IS 9.4.1.3.

9.4.1.3 TRAINING MANUAL

(a) Each AOC holder shall ensure that all operations personnel are properly instructed in their duties and responsibilities and the relationship of such duties to the operation as a whole.

(b) Each AOC holder shall have a Training Manual approved by the Authority containing the general training, checking, and record keeping policies.

(c) Each AOC holder shall have approval of the Authority prior to using a training curriculum for the purpose of qualifying a crew member, or a person performing operational control functions, for duties in commercial air transport.

(d) Each AOC holder shall submit to the Authority any revision to an approved training programme and shall receive written approval from the Authority before that revision may be used.

(e) The Training Manual shall conform to the outline prescribed in IS 9.4.1.3.

9.4.1.4 AIRCRAFT OPERATING MANUAL

(a) Each AOC holder shall, for each type and variant of aircraft operated, submit for approval by the Authority a proposed AOM containing the normal, abnormal, and emergency procedures relating to the operation of the aircraft.

(b) Each AOM shall be based upon the aircraft manufacturer's data for the specific aircraft type and variant operated by the AOC holder and shall include specific operating parameters, details of the aircraft systems, and checklists to be used applicable to the operations of the AOC holder that are approved by the Authority. The design of the manual shall observe human factors principles.

(c) The AOM shall be issued to the flight crew members and persons assigned operational control functions to each aircraft operated by the AOC holder.

(d) The AOM shall conform to the outline prescribed in IS 9.4.1.4.

9.4.1.5 AIRCRAFT TECHNICAL LOG ENTRIES – JOURNEY RECORDS SECTION

(a) Each AOC holder shall use an aircraft technical log containing a journey records section that includes the following information for each flight:

Note: See 9.5.1.9 of this part for the continuing airworthiness records section of the aircraft technical log.

(1) Aircraft nationality and registration;

(2) Date;

(3) Names of crew members;

(4) Duty assignments of crew members;

(5) Place of departure;

(6) Place of arrival;

(7) Time of departure;

(8) Time of arrival;

(9) Hours of flight;

(10) Nature of flight (private, aerial work, scheduled, non-scheduled);

(11) Incidents, observations, if any; and

(12) Signature of person in charge.

(b) Entries in the journey records section shall be made currently and in ink or indelible pencil.

(c) Completed journey records sections shall be retained to provide a continuous record of the last 2 years of operations.

9.4.1.6 DESIGNATION OF PILOT-IN-COMMAND FOR COMMERCIAL AIR TRANSPORT

(a) The AOC holder shall, for each commercial air transport operation, designate in writing one pilot as the PIC.

9.4.1.7 REQUIRED CABIN CREW MEMBERS

(a) The AOC holder shall schedule the minimum number of required cabin crew members on board passenger-carrying flights.

(b) The PIC shall ensure that the minimum number of required cabin crew members is on board the passenger-carrying flight.

(c) The number of cabin crew members shall not be less than the minimum prescribed by the Authority in the AOC holder's operations specifications or the following, whichever is greater:

(1) For a seating capacity of 20 to 50 passengers: 1 cabin crew member; and

(2) One additional cabin crew member for each unit, or part of a unit, of 50-passenger-seat capacity.

(d) When passengers are on board a parked aircraft, the minimum number of cabin crew members shall be one-half that required for the flight operation, but never less than one cabin crew member (or another person qualified in the emergency evacuation procedures for the aircraft).

Note: Where one-half would result in a fractional number, it is permissible to round down to the next whole number.

9.4.1.8 CARRIAGE OF SPECIAL SITUATION PASSENGERS

(a) No AOC holder may allow the transport of special situation passengers except:

(1) As provided in the AOC holder's OM procedures; and

(2) With the knowledge and concurrence of the PIC.

Note: Each State should consult its national laws or other regulations when developing regulations for the carriage of persons with physical or mental disabilities, or inadmissible passengers, deportees, or persons in custody.

9.4.1.9 CREW MEMBER CHECKING AND STANDARDISATION PROGRAMME

(a) Each AOC holder shall have a programme, approved by the Authority, for the checking and standardisation of crew members.

Note: A standardised process is defined to address the operator-unique fleet differences and compliance methods.

(b) An AOC holder shall check pilots' proficiency on those manoeuvres and procedures that are prescribed by the Authority for pilot proficiency checks, which shall include emergency procedures and, where applicable, instrument flight rules.

Note: See Part 8 of these regulations for specific checking requirements.

9.4.1.10 RESERVED

9.4.1.11 FLIGHT DECK CHECK PROCEDURE

(a) Each AOC holder shall issue to its flight crews, and shall make available on each aircraft, the checklist procedures approved by the Authority appropriate to the type and variant of aircraft.

(b) Each AOC holder shall ensure that approved procedures include each item necessary for flight crew members to check for safety before starting engines, taking off, or landing, and for engine and system abnormalities and emergencies.

(c) Each AOC holder shall ensure that the checklist procedures are designed so that flight crew members will not need to rely upon their memory for items to be checked.

(d) Each AOC holder shall make the approved procedures readily usable in the flight deck of each aircraft, and the flight crew shall be required to follow the approved procedures when operating the aircraft.

Note: Checklists are part of the AOM, which is a part of the AOC holder's OM and is approved by the Authority.

9.4.1.12 MINIMUM EQUIPMENT LIST AND CONFIGURATION DEVIATION LIST

(a) Each AOC holder shall provide, for the use of flight crew members, maintenance personnel, and persons assigned operational control functions during the performance of their duties, an MEL approved by the Authority.

(b) The MEL shall be specific to the aircraft type and variant and shall contain the circumstances, limitations, and procedures for the release or continuance of flight of the aircraft with inoperative components, equipment, or instruments.

(c) Each AOC holder shall provide, for the use of flight crew members, maintenance personnel, and persons assigned operational control functions during the performance of their duties, a CDL specific to the aircraft type, if one is provided and approved by the State of Design. An AOC holder's OM shall contain those procedures acceptable to the Authority for operations in accordance with the CDL requirements.

Note: The MEL constitutes an integral part of the OM.

9.4.1.13 PERFORMANCE PLANNING MANUAL

(a) Each AOC holder shall provide, for the use of flight crew members and persons assigned operational control functions during the performance of their duties, a Performance Planning Manual acceptable to the Authority.

(b) The Performance Planning Manual shall be specific to the aircraft type and variant and shall contain adequate performance information to accurately calculate the performance in all normal phases of flight operation.

Note: ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual*, and ICAO Doc 10064,* Aeroplane Performance Manual*, provide information on preparing the Performance Planning Manual.*

9.4.1.14 PERFORMANCE DATA CONTROL SYSTEM

(a) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining, and distributing to appropriate personnel current performance data for each aircraft, route, and aerodrome that it uses.

(b) The system approved by the Authority shall provide current obstacle data for departure and arrival performance calculations.

9.4.1.15 AIRCRAFT LOADING AND HANDLING MANUAL

(a) Each AOC holder shall provide, for the use of flight crew members, ground handling personnel, and persons assigned operational control functions during the performance of their duties, an Aircraft Loading and Handling Manual acceptable to the Authority.

(b) This Aircraft Loading and Handling Manual shall be specific to the aircraft type and variant and shall contain the procedures and limitations for servicing and loading the aircraft.

Note: Depending on the size and scope of the AOC holder's operations, the Aircraft Loading and Handling Manual may be a stand-alone document or may be contained in the OM.

9.4.1.16 MASS AND BALANCE DATA CONTROL SYSTEM

(a) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining, and distributing to appropriate personnel current information regarding the mass and balance of each aircraft operated.

9.4.1.17 CABIN CREW MEMBER MANUAL

(a) The AOC holder shall issue to cabin crew members, and provide to passenger agents during the performance of their duties, a Cabin Crew Member Manual acceptable to the Authority.

(b) The Cabin Crew Member Manual shall contain those operational policies and procedures applicable to cabin crew members and the carriage of passengers.

(c) The AOC holder shall issue to the cabin crew members a manual, specific to the aircraft type and variant, which contains the details of their normal, abnormal, and emergency procedures and the location and operation of emergency equipment.

Note: This manual may be combined into one manual for use by cabin crew members.

9.4.1.18 PASSENGER BRIEFING CARDS

(a) Each AOC holder shall carry on each passenger-carrying aircraft, in convenient locations for the use of each passenger, printed cards supplementing the oral briefing and containing:

(1) Diagrams and methods of operating the emergency exits;

(2) Other instructions necessary for the use of the emergency equipment; and

(3) Information regarding the restrictions and requirements associated with sitting in an exit-seat row.

(b) Each AOC holder shall ensure that each passenger briefing card contains information that is pertinent only to the type and variant of aircraft used for that flight.

(c) Specific information to be included on passenger briefing cards regarding exit seating is prescribed in IS 9.4.1.18.

Note: See FAA AC 121-24D, Passenger Information Safety Briefing and Briefing Cards*, for detailed information on passenger briefings.*

9.4.1.19 AERONAUTICAL DATA CONTROL SYSTEM

(a) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining, and distributing to appropriate personnel current aeronautical data for each route and aerodrome that it uses.

(b) Specific aerodrome information to be contained in the aeronautical data control system is prescribed in IS 9.4.1.19.

9.4.1.20 ROUTE GUIDE – AREAS, ROUTES, AERODROMES, AND HELIPORTS

(a) Each AOC holder shall provide, for the use of flight crew members and persons assigned operational control functions during the performance of their duties, information on areas, routes, aerodromes, and heliports as well as aeronautical charts approved by the Authority.

(b) The AOC holder shall keep the route guide and aeronautical charts current and appropriate for the proposed types and areas of operation to be conducted by the AOC holder. This information may be issued as part of, or separately from, the OM.

(c) This information shall contain at least the information prescribed in IS 9.4.1.20.

9.4.1.21 WEATHER REPORTING SOURCES

(a) Each AOC holder shall use sources approved by the Authority for the weather reports and forecasts used for decisions regarding flight preparation, routing, and terminal operations.

(b) For passenger-carrying operations, the AOC holder shall have an approved system for obtaining forecasts and reports of adverse weather phenomena that may affect the safety of flight on each route to be flown and at each aerodrome to be used.

(c) A list of weather reporting sources approved by the Authority for flight planning or for controlling flight movement are prescribed in IS 9.4.1.21.

9.4.1.22 DE-ICING AND ANTI-ICING PROGRAMME

(a) Each AOC holder planning to operate an aircraft in conditions where frost, ice, or snow may reasonably be expected to adhere to the aircraft shall:

(1) Use only aircraft adequately equipped for such conditions;

(2) Ensure the flight crew is adequately trained for such conditions; and

(3) Have an approved ground de-icing and anti-icing programme.

(b) Detailed requirements pertaining to the AOC holder's de-icing and anti-icing programme are prescribed in IS 9.4.1.22.

Note: *See the current edition of FAA AC 120-60, Ground Deicing and Anti-Icing Program, for a discussion of the programme and training of employees. See also ICAO Doc 9640, Manual of Aircraft Ground De-icing/Anti-icing Operations.*

9.4.1.23 FLIGHT DISPATCH AND MONITORING SYSTEM

(a) Each AOC holder shall have an adequate system approved by the Authority for proper dispatch and monitoring of flights, considering the operations to be conducted.

(1) The AOC holder's dispatch and monitoring system shall have enough dispatch centres adequate for the operations to be conducted, located at points necessary to ensure adequate flight preparation, dispatch, and in-flight contact with flight operations.

(2) Each AOC holder shall provide enough qualified FOOs at each dispatch centre to ensure proper operational control of each flight.

(b) An AOC holder conducting charter operations may arrange to have flight following facilities provided by persons other than its employees, but, in such a case, the AOC holder shall continue to be primarily responsible for operational control of each flight.

(1) Each AOC holder conducting charter operations using a flight following system shall show that the system has adequate facilities and personnel to provide to the following persons the information necessary for the initiation and safe conduct of each flight:

(i) The flight crew of each aircraft; and

(ii) The persons designated by the AOC holder to perform the function of operational control of the aircraft.

(2) Each AOC holder conducting charter operations shall show that the personnel required to perform the function of operational control are able to perform their duties.

9.4.1.24 FATIGUE RISK MANAGEMENT SYSTEM

(a) For the purpose of managing fatigue-related safety risks, an AOC holder shall establish either:

(1) Flight time, flight duty period, duty period, and rest period limitations that are within the prescriptive fatigue management requirements of 8.12 of these regulations;

(2) An FRMS in compliance with paragraph 8.11.1.2(e) of these regulations; or

(3) An FRMS in compliance with paragraph 8.11.1.2(e) of these regulations for part of its operations and the requirements of 8.12 of these regulations for the remainder of its operations.

(b) Where the AOC holder adopts prescriptive fatigue management requirements for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to such requirements on the basis of a risk assessment provided by the operator. Approved variations shall provide a level of safety equivalent to, or better than, that achieved through the prescriptive fatigue management requirements.

(c) The Authority will approve an operator's FRMS before it may take the place of any or all of the prescriptive fatigue management requirements. An approved FRMS shall provide a level of safety equivalent to, or better than, the prescriptive fatigue management requirements.

(d) Operators using an FRMS shall adhere to the following provisions of the FRMS approval process, which allows the Authority to ensure that the approved FRMS meets the requirements of paragraph 8.11.1.2(d)(1) of these regulations:

(1) Establish maximum values for flight times and/or flight duty period(s) and duty period(s) and minimum values for rest periods; these values shall be based upon scientific principles and knowledge, subject to safety assurance processes;

(2) Adhere to Authority mandates to decrease maximum values and increase minimum values in the event that the operator's data indicates these values are too high or too low, respectively; and

(3) Provide justification to the Authority for any increase in maximum values or decrease in minimum values based on accumulated FRMS experience and fatigue-related data before such changes will be approved by the Authority.

(e) Operators implementing an FRMS to manage fatigue-related safety risks shall, at a minimum:

(1) Incorporate scientific principles and knowledge within the FRMS;

(2) Identify fatigue-related safety hazards and the resulting risks on an ongoing basis;

(3) Ensure that remedial actions, necessary to effectively mitigate the risks associated with the hazards, are implemented promptly;

(4) Provide for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions; and

(5) Provide for continuous improvement of the overall performance of the FRMS.

(f) Detailed requirements pertaining to FRMS are prescribed in IS 9.4.1.24.

9.4.1.25 COMMUNICATIONS FACILITIES

(a) Each AOC holder's flights shall be able to have two-way radio communications with all ATC facilities along the routes and alternate routes to be used.

(b) For passenger-carrying operations, each AOC holder shall be able to have rapid and reliable radio communications with all flights over the AOC holder's entire route structure under normal operating conditions. This radio communication system shall be independent of the ATC system.

(c) Each AOC holder engaged in international air navigation shall at all times have available for immediate communication to rescue coordination centres information on the emergency and equipment carried on board any of its aircraft, including, as applicable:

(1) The number, colour, and type of life rafts and pyrotechnics;

(2) Details of emergency water and medical supplies; and

(3) The type and frequencies of the emergency portable radio equipment.

9.4.1.26 ROUTES AND AREAS OF OPERATION

(a) An AOC holder shall conduct operations only along such routes and within such areas for which:

(1) Ground facilities and services, including meteorological services, are provided that are adequate for the planned operation;

(2) The performance of the aircraft intended to be used is adequate to comply with minimum flight altitude requirements;

(3) The equipment of the aircraft intended to be used meets the minimum requirements for the planned operation;

(4) Appropriate and current maps and charts are available;

(5) If two-engine aircraft are used, adequate aerodromes are available within the time and distance limitations; and

(6) If single-engine aircraft are used, surfaces are available that permit a safe forced landing to be executed.

(b) No person may conduct commercial air transport operations on any route or in any area of operation unless those operations are conducted in accordance with any restrictions imposed by the Authority.

9.4.1.27 NAVIGATIONAL ACCURACY

(a) Each AOC holder shall ensure, for each proposed route or area, that the navigation systems and facilities it uses are capable of navigating the aircraft:

(1) Within the degree of accuracy required for ATC; and

(2) To the aerodromes in the operational flight plan within the degree of accuracy necessary for the operation involved.

(b) In situations without adequate navigation systems reference, the Authority may authorise day VFR operations that can be conducted safely by pilotage because of the characteristics of the terrain.

(c) Except for those navigation aids required for routes to alternate aerodromes, the Authority will list in the AOC holder's operations specifications non-visual ground aids required for approval of routes outside of controlled airspace.

(d) Non-visual ground aids are not required for night VFR operations on routes that the AOC holder shows have reliably lighted landmarks adequate for safe operation.

(e) Operations on route segments where the use of celestial or other specialised means of navigation is

required shall be approved by the Authority.

Note 1: The operations specifications layout prescribed in paragraph 9.2.1.3(c) of this part and IS 9.2.1.3(C) shall be followed. The bottom row of the operations specifications provides for "other" authorisations or data. Other authorisations or data may require the preparation of multiple pages, based on the complexity of the AOC holder's operation. It would be appropriate for the Authority to list in the AOC holder's operations specifications as "other" authorisations, the non-visual ground aids required for approval of routes outside of controlled airspace.

Note 2: See ICAO Doc 9613, Performance-Based Navigation (PBN) Manual*, for information on the approval process for operations in RNP airspace and a list of references to other documents produced by States and international bodies.*

9.4.1.28 AIRCRAFT TRACKING

(a) The AOC holder shall establish an aircraft tracking capability to track aeroplanes throughout its areas of operation.

Note: Guidance on aircraft tracking capabilities is contained in ICAO Cir 347, Aircraft Tracking Implementation Guidelines.

(b) The AOC holder shall track the position of an aeroplane through automated reporting at least every 15 minutes for the portion(s) of the in-flight operation(s) under the following conditions:

(1) The aeroplane has a maximum certificated take-off mass of over 27 000 kg and a seating capacity greater than 19; and

(2) Where an ATS unit obtains aeroplane position information at greater than 15-minute intervals.

Note: See ICAO Annex 11, Chapter 2, for coordination between the AOC holder and ATS provisions regarding position report messages.

(c) The AOC holder shall track the position of an aeroplane through automated reporting at least every 15 minutes for the portion(s) of the in-flight operation(s) planned in an oceanic area under the following conditions:

Note: For the purpose of aircraft tracking, "oceanic area" is the airspace that overlies waters outside the territory of a State.

(1) The aeroplane has a maximum certificated take-off mass of over 45 500 kg and a seating capacity greater than 19; and

(2) Where an ATS unit obtains aeroplane position information at greater than 15-minute intervals.

Note: See ICAO Annex 11, Chapter 2, for coordination between the AOC holder and ATS provisions regarding position report messages.

(d) Notwithstanding the provisions in paragraphs 9.4.1.28(b) and (c) of this subsection, the Authority may, based on the results of an approved risk assessment process implemented by the AOC holder, allow for variations to automated reporting intervals. The process shall demonstrate how risks to the operation resulting from such variations may be managed and shall include at least the following:

(1) The capability of the AOC holder's operational control systems and processes, including those for contacting ATS units;

(2) The overall capability of the aeroplane and its systems;

(3) The available means to determine the position of, and to communicate with, the aeroplane;

(4) The frequency and duration of gaps in automated reporting;

(5) Human factors consequences resulting from changes to flight crew procedures; and

(6) Specific mitigation measures and contingency procedures.

Note: Guidance on development, implementation, and approval of the risk assessment process that allows for variations to the need for automatic reporting and the required interval, including variation examples, is contained in ICAO Cir 347, Aircraft Tracking Implementation Guidelines.

(e) The AOC holder shall establish procedures, approved by the Authority, for the retention of aircraft tracking data to assist search and rescue in determining the last known position of the aircraft.

Note: See 9.2.1.2 of this part for AOC holder responsibilities when using third parties for the conduct of aircraft tracking under this subsection.

9.5 AOC CONTINUING AIRWORTHINESS REQUIREMENTS

Note 1: For the purpose of this subpart, "aeroplane" includes: engines, propellers, components, accessories, instruments, equipment and apparatus including emergency equipment.

Note 2: Reference is made throughout this chapter to the requirements of the State of Registry. When the State of the Operator is not the same as the State of Registry, it may be necessary to consider any additional requirements of the State of the Operator.

Note 3: Guidance on continuing airworthiness requirements is contained in the Airworthiness Manual *(Doc 9760).*

9.5.1.1 APPLICABILITY

(a) This subpart provides those certification and continuing airworthiness requirements that apply to an AOC holder utilising an AMO.

9.5.1.2 CONTINUING AIRWORTHINESS RESPONSIBILITY

(a) Each AOC holder shall ensure the airworthiness of the aircraft and the serviceability of both operational and emergency equipment by ensuring the:

(1) Accomplishment of pre-flight inspections;

(2) Correction of any defect and/or damage affecting safe operation of an aircraft to an approved standard, taking into account the MEL and CDL if available for the aircraft type;

(3) Accomplishment of all maintenance in accordance with the operator's approved aircraft maintenance programme;

(4) Analysis of the effectiveness of the operator's approved aircraft maintenance programme;

(5) Accomplishment of any operational directive, AD, and any other continuing airworthiness requirement made mandatory by the Authority; and

(6) Accomplishment of modifications in accordance with an approved standard and, for non-mandatory modifications, the establishment of an embodiment policy.

(b) Each AOC holder shall ensure that the certificate of airworthiness for each aircraft operated remains valid with respect to:

(1) The requirements in paragraph 9.5.1.2(a) of this subsection;

(2) The expiration date of the certificate; and

(3) Any other maintenance condition specified in the certificate.

(c) Each AOC holder shall ensure that the requirements specified in paragraph 9.5.1.2(a) of this subsection are performed in accordance with procedures approved by or acceptable to the Authority.

(d) Each AOC holder shall ensure that the maintenance, overhaul, modification, repair, and inspection of its aircraft and aeronautical products are performed in accordance with its MCM and/or current instructions for continuing airworthiness and applicable aviation regulations.

(e) Each AOC holder may make an arrangement with another person or entity for the performance of any maintenance, overhaul, modification, repair, or inspection, but shall remain responsible for all work performed under such arrangement.

(f) Each AOC holder shall have its aircraft maintained and approved for return to service as provided for in 9.5.1.10 of this part.

9.5.1.3 APPROVAL AND ACCEPTANCE OF AOC MAINTENANCE SYSTEMS AND PROGRAMMES

(a) An AOC holder shall not operate an aircraft, except for pre-flight inspections, unless it is maintained and approved for return to service as follows:

(1) The operator shall not operate an aeroplane unless it is maintained and returned to service by;

(i) an organisation approved in accordance with Part 6 of these regulations that is either approved by the State of Registry of the aeroplane or is approved by another Contracting State and shall be accepted by the State of Registry; or

(ii) by a person or organisation in accordance with procedures that are authorized by the State of Registry.

(2) When the State of Registry accepts a system that is authorized in accordance with 9.5.1.3(a)(1)(ii) of this part, the person signing the approval for return to service shall be licensed in accordance with Part 2 of these regulations to certify that maintenance work performed has been completed satisfactorily and in accordance with approved data and procedures acceptable to the State of Registry.

(3) When the maintenance is not carried out by an approved maintenance organization, the return to service shall include the following:

(i) basic details of the maintenance carried out including detailed reference of the data used;

(ii) the date such maintenance was completed; and

(iii) the identity of the person or persons signing the return to service.

Note: Under 14 CFR, the current practice is that an AOC holder is authorised to perform its own maintenance under the AOC without being designated separately as an AMO.

9.5.1.4 MAINTENANCE CONTROL MANUAL

(a) Each Curaçao AOC holder shall provide to the Authority, and to the State of Registry of the aircraft if different from the Authority, the AOC holder's MCM and subsequent amendments using human factors principles, for the use and guidance of maintenance and operational personnel concerned and containing details of the organisation's structure, including:

(1) The executive manager and designated person(s) responsible for the maintenance programme, as required by 9.3.2.2 of this part;

(2) Procedures to be followed, which may be included in the AMO Procedures Manual, to satisfy the maintenance responsibility of 9.5.1.2 of this part, except where the AOC holder is certificated as an AMO and has the quality functions of 9.3.2.3 of this part;

(3) Procedures for the reporting of failures, malfunctions, and defects, in accordance with 5.4.1.5 of these regulations, to the Authority, the State of Registry, and the State of Design within 72 hours of discovery; in addition, items that warrant immediate notification to the Authority by telephone, facsimile, or email with a written follow-on report as soon as possible, but no later than within 72 hours of discovery, are:

(i) Primary structural failure;

(ii) Control system failure;

(iii) Fire in the aircraft;

(iv) Engine structure failure; or

(v) Any other condition considered an imminent hazard to safety.

(b) The AOC holder's MCM shall contain the following information, which may be issued in separate parts:

(1) A description of the administrative agreements between the AOC holder and the AMO, or a description of the maintenance procedures and the procedures for completing and signing an approval for return to service when maintenance is based on a system other than that of an AMO;

(2) A description of the procedures for ensuring that each aircraft they operate is in an airworthy condition;

(3) A description of the procedures for ensuring that the emergency equipment for each flight is serviceable;

(4) The names and duties of the person or persons required to ensure that all maintenance is carried out in accordance with the MCM;

(5) A reference to the maintenance programme required by 9.5.1.12 of this part;

(6) A description of the methods for completion and retention of the operator's continuing airworthiness records required by 9.5.1.8 of this part;

(7) A description of the procedures for monitoring, assessing, and reporting maintenance and operational experience for all aircraft over 5 700 kg maximum certificated take-off mass;

(8) A description of the procedures for complying with the service information requirements as set forth in 5.4.1.4 of these regulations.

(9) A description of the procedures for obtaining and assessing continuing airworthiness information from the organisation responsible for the type design and implementing any resulting actions considered necessary by the State of Registry for all aircraft over 5 700 kg maximum certificated take-off mass;

(10) A description of the procedures for implementing mandatory continuing airworthiness as required in paragraph 9.5.1.2(a)(5) of this part;

(11) A description of the procedures for establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance programme in order to correct any deficiency in that programme;

(12) A description of the aircraft types and models to which the AOC holder's MCM applies;

(13) A description of the procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified; and

(14) A description of the procedures for advising the State of Registry of significant in-service occurrences.

(c) No AOC holder may provide for use by its personnel in commercial air transport any MCM or portion of this manual that has not been reviewed and approved for the AOC holder by the Authority.

(d) An outline of specific subjects to be contained, as appropriate, in the AOC holder's MCM is prescribed in IS 9.5.1.4.

Note 1: In the FAA system, the MCM is usually referred to as the General Maintenance Manual; in the JARs, it is called the Maintenance Management Exposition.

Note 2: Guidance material on the application of human factors principles can be found in ICAO Doc 9683, Human Factors Training Manual.

9.5.1.5 MAINTENANCE MANAGEMENT

(a) The AOC holder certificated as an AMO may carry out the requirements specified in paragraphs 9.5.1.2(a)(2), (3), (5), and (6) of this part.

(b) If the AOC holder is not certificated as an AMO, the AOC holder shall meet its responsibilities under paragraphs 9.5.1.2(a)(2), (3), (5), and (6) of this part through an arrangement with an AMO, with a written maintenance contract between the AOC holder and the contracting AMO detailing the required maintenance functions and defining the support of the quality functions approved or accepted by the Authority.

(c) Each AOC holder shall employ a person or group of persons, acceptable to the Authority, to ensure that all maintenance is carried out to an approved standard, such that the continuing airworthiness requirements of 9.5.1.2 of this part and the requirements of the AOC holder's MCM are satisfied, and to ensure the functioning of the quality system.

(d) Each AOC holder shall provide suitable office accommodation at appropriate locations for the personnel specified in paragraph 9.5.1.5(c) of this subsection.

(e) Each AOC holder shall establish for the maintenance of aircraft an SMS that is in accordance with 9.3.2.10 of this part and is acceptable to the Authority.

9.5.1.6 RESERVED

9.5.1.7 RESERVED

9.5.1.8 CONTINUING AIRWORTHINESS RECORDS

(a) Each AOC holder shall ensure that a system has been established to keep, in a form acceptable to the Authority, the following records:

(1) The total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts;

(2) The current status of compliance with all mandatory continuing airworthiness information;

(3) Appropriate details of modifications and repairs to the aircraft or aeronautical products;

(4) The time in service (hours, calendar time, and cycles, as appropriate) since last overhaul of the aircraft or aeronautical products subject to mandatory overhaul life;

(5) The current aircraft status of compliance with the maintenance programme; and

(6) The detailed maintenance records to show that all requirements for the signing of an approval for return to service has been met.

(b) Each AOC holder shall ensure that the records in paragraphs 9.5.1.8(a)(1) through (5) of this subsection shall be kept for a minimum of 90 days after the unit to which they refer has been permanently withdrawn from service and that the records in paragraph 9.5.1.8(a)(6) of this subsection shall be kept for a minimum of 1 year after the signing the approval for return to service.

(c) Each AOC holder shall ensure that in the event of a temporary change of operator, the records specified in paragraph 9.5.1.8(a) of this subsection shall be made available to the new operator.

(d) Each AOC holder shall ensure that when an aircraft is permanently transferred from one operator to another operator, the records specified in paragraph 9.5.1.8(a) of this subsection are also transferred.

Note: In the context of 9.5.1.8(c), a judgement on what should be considered as a temporary change of operator will need to be made by the State of Registry in the light of the need to exercise control over the records, which will depend on access to them and the opportunity to update them.

(e) Records kept and transferred in accordance with 8.4 shall be maintained in a form and format that ensures readability, security and integrity of the records at all times.

Note 1: The form and format of the records may include, for example, paper records, film records, electronic records or any combination thereof.
Note 2: Guidance regarding electronic aircraft continuing airworthiness records is included in the Airworthiness Manual (Doc 9760).

9.5.1.9 AIRCRAFT TECHNICAL LOG ENTRIES – CONTINUING AIRWORTHINESS RECORDS SECTION

(a) Each AOC holder shall use an aircraft technical log that includes an aircraft continuing airworthiness records section containing the following information for each aircraft:

Note: See 9.4.1.5 of this part for the journey records section of the aircraft technical log.

(1) Information about each previous flight, necessary to ensure continuing flight safety;

(2) The current aircraft maintenance release and/or an airworthiness release;

(3) The current inspection status of the aircraft, to include inspections due to be performed on an established schedule and inspections due to be performed that are not on an established schedule, except that the Authority may agree to the maintenance statement being kept elsewhere;

(4) The current maintenance status of the aircraft, to include maintenance due to be performed on an established schedule and maintenance due to be performed that is not on an established schedule, except that the Authority may agree to the maintenance statement being kept elsewhere; and

(5) All deferred defects that affect the operation of the aircraft.

Note: Defects that are not airworthiness items may be deferred to a later date for rectification. When this is done, there shall be a method for recording such a deferral, and normally the aircraft technical log has a section solely for this purpose. Some operators have a system of classifying deferred defects to allow different lengths of time, either in hours flown, number of sectors, or, on return to a maintenance base, until a defect shall be rectified, before further flight.

(b) The aircraft technical log and any subsequent amendment shall be approved by the Authority.

(c) Each person who takes action in the case of a reported or observed failure or malfunction of an aircraft or aeronautical product that is critical to the safety of flight shall make, or shall have made, a record of that action in the continuing airworthiness records section of the aircraft technical log.

(d) Each AOC holder shall have a procedure for keeping copies of required records to be carried on board, in a place readily accessible to each flight crew member, and shall put that procedure in the AOC holder's OM.

9.5.1.10 RETURN TO SERVICE

(a) No AOC holder shall operate an aircraft unless the aircraft has both an approval for return to service, if maintenance has been performed prior to the flight, and a valid logbook entry in the continuing airworthiness records section of the aircraft technical log, as follows:

(1) An AOC holder shall not operate an aircraft unless the aircraft is maintained and approved for return to service as follows:

(i) The operator shall not operate an aeroplane unless it is maintained and returned to service by an organisation approved in accordance with Part 6 of these regulations, of which shall be acceptable to the State of Registry: or,

(ii) By a person or organization in accordance with procedures that are authorized by the State of Registry, of which shall be accepted by the State of Registry.

(iii) When the State of Registry accepts a system in accordance with 9.5.1.10(a)(1)(ii)

of this subsection, the person signing the approval for return to service shall be licensed in accordance with Part 2 of these regulations to certify that maintenance work performed has been completed satisfactorily and in accordance with approved data and procedures acceptable to the State of Registry.

(2) An AOC holder using an AMO shall not operate an aircraft after return to service under paragraph 9.5.1.10(a)(1)(i) of this subsection unless an approval for return to service has been prepared in accordance with the AOC holder's MCM procedures and a logbook entry has been made in the continuing airworthiness records section of the aircraft technical log.

(3) An AOC holder using a system with procedures authorized by the State of Registry shall not operate an aircraft after return to service under paragraph 9.5.1.10(a)(1)(ii) of this subsection unless a logbook entry in the continuing airworthiness records section of the aircraft technical log is prepared or caused to be prepared by an appropriately licensed and rated person in accordance with Part 2 of these regulations, as appropriate. This approval for return to service shall be made in accordance with the AOC holder's MCM procedures.

(4) The AOC holder shall ensure that the PIC of the aircraft has reviewed the continuing airworthiness records section of the aircraft technical log and has determined that any maintenance performed has been appropriately documented.

(b) Aircraft technical log – continuing airworthiness records section:

(1) An AOC holder shall not operate an aircraft unless the PIC is in possession of a valid logbook entry in the continuing airworthiness records section of the aircraft technical log to indicate that any maintenance performed on the aircraft has been satisfactorily performed and appropriately documented.

9.5.1.11 MODIFICATIONS AND REPAIRS

(a) All modifications and repairs shall comply with airworthiness requirements acceptable to the State of Registry. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements is retained. However, in the case of a major repair or major modification, the work shall have been performed in accordance with technical data approved by the Authority of Curaçao.

(b) An AOC holder may be authorised to perform maintenance, overhaul, modifications, repairs, and inspections on any aircraft or aeronautical product under the AOC, provided:

(1) It is performed under a maintenance system, acceptable to the State of Registry, that is equivalent to that of an AMO established in accordance with Part 6 of these regulations; and

(2) It is performed in accordance with the AOC holder's operations specifications.

(i) An AOC holder using a maintenance system, acceptable to the State of Registry, that is equivalent to that of an AMO that wishes to approve for return to service, after major repairs or major modifications, an aircraft registered in Curaçao shall use a current and valid licensed AMT with an airframe and powerplant rating that is qualified in accordance with Part 2 of these regulations and following procedures acceptable to the State of Registry.

(c) Each AOC holder shall, promptly upon completion, prepare a report of each major modification or major repair of an aircraft or aeronautical product.

(d) The AOC holder shall submit to the Authority a copy of each report of a major modification and shall keep available for inspection a copy of each report of a major repair.

(e) The Authority issuing an approval for the design of a modification, repair, or replacement part shall do so on the basis of satisfactory evidence that the aircraft is in compliance with airworthiness requirements used for the issuance of the type certificate, its amendments, or later requirements,

when determined by the State of Registry.

9.5.1.12 AIRCRAFT MAINTENANCE PROGRAMME

(a) Each AOC holder's aircraft maintenance programme and any subsequent amendment shall be submitted to the State of Registry for approval; acceptance by the Authority of Curaçao will be conditioned upon prior approval by the State of Registry or, where appropriate, upon the AOC holder's compliance with recommendations provided by the State of Registry.

(b) The Authority of Curaçao will require an AOC holder to include a reliability programme when the Authority determines that such a reliability programme is necessary. When such a determination is made by the Authority, the AOC holder shall provide such procedures and information in the AOC holder's MCM.

(c) Each AOC holder shall ensure that each of its aircraft is maintained in accordance with the AOC holder's approved maintenance programme, as required by 9.5.1.2 of this part, which shall include:

(1) Maintenance tasks and the intervals in which these are to be performed, taking into account the anticipated utilisation of the aircraft;

(2) When applicable, a continuing structural integrity programme;

(3) Procedures for changing or deviating from paragraphs 9.5.1.12(c)(1) and (2) of this subsection; and

(4) When applicable, condition monitoring and a reliability programme for aircraft systems, components, and powerplants.

(d) The design and application of the AOC holder's maintenance programme shall observe Human Factors principles.

Note: Guidance material on the application of Human Factors principles can be found in the Human Factors Training Manual *(Doc 9683)*.

(e) Repetitive maintenance tasks that are specified in mandatory intervals as a condition of approval of the type design shall be identified as such.

Note: The maintenance programme should be based on maintenance programme information made available by the State of Design, or by the organisation responsible for the type design, and any additional applicable experience.

(f) No AOC holder may provide for use by its personnel in commercial air transport a maintenance programme or portion thereof that has not been reviewed and approved for the AOC holder by the Authority of Curaçao.

(g) Approval by the Authority of an AOC holder's maintenance programme and any subsequent amendments shall be noted in the operations specifications pursuant to paragraph 9.2.1.3(c) of this part.

(h) Each AOC holder shall have an inspection programme and a programme covering other maintenance, overhaul, modifications, repair, and inspections to ensure that:

(1) Maintenance, overhaul, modifications, repairs, and inspections performed by it, or by other persons, are performed in accordance with the AOC holder's MCM;

(2) Each aircraft returned to service is airworthy and has been properly maintained for operation.

(i) The Authority may amend any specifications issued to an AOC holder to permit deviation from those provisions of this subpart that would prevent the return to service and use of aeronautical products because those items have been maintained, modified, or inspected by persons employed outside Curaçao who do not hold a Curaçao technician's licence. Each AOC holder that is granted authority under this deviation shall provide for surveillance of facilities and practices to ensure that all work performed on these products is accomplished in accordance with the AOC holder's MCM.

9.5.1.13 RELIABILITY PROGRAMME

(a) A maintenance programme for each aeroplane shall contain, when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components, and powerplants.

(b) A reliability programme shall be developed for the aircraft maintenance programme if the maintenance programme is based upon Maintenance Steering Group logic, includes condition-monitored components, or does not contain overhaul time periods for all significant system components.

(c) A reliability programme need not be developed for aircraft not considered large aircraft or that contain overhaul time periods for all significant aircraft system components.

(d) The purpose of a reliability programme is to ensure that the aircraft maintenance programme tasks are effective and that their periodicity is adequate.

(e) A reliability programme may result in the escalation or deletion of maintenance tasks, as well as de-escalation or addition of maintenance tasks.

(f) A reliability programme provides an appropriate means of monitoring the effectiveness of the maintenance programme.

9.5.1.14 AUTHORITY TO PERFORM AND APPROVE MAINTENANCE, OVERHAUL, MODIFICATIONS, REPAIRS, AND INSPECTIONS

(a) An AOC holder that is not certificated as an AMO may perform maintenance, overhaul, modifications, repairs, inspections, and approvals for return to service on any aircraft or aeronautical product, if approved by the State of Registry of the aircraft and listed in the operations specifications, as provided in its maintenance programme, and accepted by the State of the Operator.

(b) An AOC holder may make arrangements with an appropriately rated AMO for the performance of maintenance, overhaul, modifications, repairs, and inspections of any aircraft or aeronautical product as provided in its maintenance programme and MCM. The activities listed shall be performed by an AMO approved by the State of Registry or approved by another Authority that is accepted by the State of Registry.

(c) An AOC holder that is not certificated as an AMO shall use an appropriately licensed and rated person in accordance with Part 2 of these regulations, as appropriate, to approve for return to service any maintenance, overhaul, modifications, repairs, and inspections of any aircraft or aeronautical product after performing or supervising in accordance with technical data approved by the State of Registry. The activities listed shall be performed by a person licensed by the State of Registry.

9.5.1.15 LICENCE REQUIREMENTS FOR A TECHNICIAN – AOC HOLDER USING A SYSTEM WITH PROCEDURES AUTHORIZED BY THE STATE OF REGISTRY

(a) Each person who is directly in charge of the maintenance, overhaul, modification, or repair of any aircraft or aeronautical product and each person who performs required inspections and approves for return to service the work performed shall be an appropriately licensed and rated technician or repair specialist in accordance with Part 2, as appropriate, and shall be acceptable to the Authority. The activities listed shall be performed by a person licensed by the State of Registry.

(b) .A person who is directly in charge shall be on site and need not physically observe and direct each worker constantly but shall be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work.

9.5.1.16 REST AND DUTY LIMITATIONS FOR PERSONS PERFORMING MAINTENANCE FUNCTIONS ON AOC HOLDER AIRCRAFT

(a) No person may assign, nor shall any person perform, maintenance functions for aircraft certificated for commercial air transport unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.

(b) No person may schedule a person performing maintenance functions for aircraft certificated for commercial air transport for more than 12 consecutive hours of duty.

(c) In situations involving unscheduled aircraft unserviceability, persons performing maintenance functions for aircraft certificated for commercial air transport may be continued on duty for:

(1) Up to 16 consecutive hours; or

(2) 20 hours in 24 consecutive hours.

(d) Following unscheduled duty periods, the person performing maintenance functions for aircraft shall have a mandatory rest period of 10 hours.

(e) The AOC holder shall relieve the person performing maintenance functions from all duties for 24 consecutive hours during any 7-consecutive-day period.

9.6 AOC SECURITY MANAGEMENT

9.6.1.1 APPLICABILITY

(a) This subpart provides those certification requirements that apply to the AOC holder's protection of aircraft, facilities, and personnel from unlawful interference.

9.6.1.2 SECURITY REQUIREMENTS

(a) Each AOC holder shall ensure that all appropriate personnel are familiar with, and comply with, the relevant requirements of the national security programmes of the State of the Operator.

9.6.1.3 SECURITY TRAINING PROGRAMMES

(a) Each AOC holder shall establish, maintain, and conduct approved security training programmes that enable the operator's personnel to take appropriate action to prevent acts of unlawful interference, such as sabotage, or unlawful seizure of aircraft and to minimise the consequences of such events should they occur.

(b) Each AOC holder that is responsible for aerodrome screening of passengers, baggage, and cargo shall include screening training in its security training programme.

(c) Each AOC holder's security training programme shall include the items as listed in 8.10.1.11 of these regulations.

9.6.1.4 REPORTING ACTS OF UNLAWFUL INTERFERENCE

(a) Following an act of unlawful interference on board an aircraft, the PIC, or in the PIC's absence, the AOC holder, shall submit without delay a report of such an act to the designated local authority and the Authority in the State of the Operator.

9.6.1.5 AIRCRAFT SEARCH PROCEDURE CHECKLIST

(a) Each AOC holder shall ensure that all its aircraft carry a checklist of the procedures to be followed for that type of aircraft in searching for concealed weapons, explosives, or other dangerous devices.

(b) The aircraft search procedure checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and by information on the least-risk bomb location specific to the aircraft.

9.6.1.6 FLIGHT CREW COMPARTMENT DOORS, IF INSTALLED – SECURITY PROCEDURES

(a) The flight crew compartment door on a passenger-carrying aircraft shall be capable of being locked from within the compartment in order to prevent unauthorised access.

(b) Each AOC holder shall have an approved means by which the cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(c) All passenger-carrying aeroplanes shall be equipped with an approved flight crew compartment door, where practicable, that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusion by unauthorised persons. This door shall be capable of being locked and unlocked from either pilot's station.

(1) The door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and

(2) Means shall be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious

behaviour or potential threat.

9.6.1.7 FLIGHT CREW COMPARTMENT DOORS, LARGE AEROPLANES – SECURITY PROCEDURES

(a) All aeroplanes with a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 shall be equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions by unauthorised persons. This door shall be capable of being locked and unlocked from either pilot's station.

(1) The door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and

(2) Means shall be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

9.6.1.8 CARRIAGE OF WEAPONS

(a) Where an operator accepts the carriage of weapons removed from passengers, the aeroplane shall have provision for stowing such weapons in a place so that they are not accessible to any person during flight time.

9.7 AOC DANGEROUS GOODS MANAGEMENT

Note 1: Subpart 1.6 of these regulations includes safety management provisions for air operators. Further guidance is contained in ICAO Doc 9859, Safety Management Manual (SMM).

Note 2: The carriage of dangerous goods is included in the scope of the operator's SMS.

9.7.1.1 APPLICABILITY

(a) This subpart provides those certification requirements that apply to the management and transport of dangerous goods by air.

9.7.1.2 APPROVAL TO TRANSPORT DANGEROUS GOODS

(a) No AOC holder may transport dangerous goods unless given specific approval to do so by the Authority.

9.7.1.3 SCOPE

(a) Each AOC holder shall comply with the provisions contained in ICAO Doc 9284, *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, hereinafter referred to as "Technical Instructions," on all occasions when dangerous goods are carried, irrespective of whether the flight is wholly or partly within or wholly outside the territory of Curaçao Where dangerous goods are to be transported outside the territory of Curaçao, the AOC holder shall review and comply with the appropriate variations noted by Contracting States contained in Attachment 3 to the Technical Instructions.

(b) Articles and substances that would otherwise be classified as dangerous goods are excluded from the requirements of this subpart, to the extent specified in the Technical Instructions, provided they are:

(1) Required to be on board the aircraft for operating reasons;

(2) Carried as catering or cabin service supplies;

(3) Carried for use in flight as a veterinary aid or as a humane killer for an animal; or

(4) Carried for use in flight for medical aid for a patient, provided that:

(i) Gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;

(ii) Drugs, medicines, and other medical matter are under the control of trained personnel during the time when they are in use in the aircraft;

(iii) Equipment containing wet cell batteries is kept and, when necessary, secured in an upright position to prevent spillage of the electrolyte; and

(iv) Proper provision is made to stow and secure all the equipment during take-off and landing and at all other times when deemed necessary by the PIC in the interests of safety; or

(v) They are carried by passengers or crew members.

(c) Articles and substances intended as replacements for those described in paragraph 9.7.1.3(b)(1) of this subsection shall be transported on an aircraft as specified in the Technical Instructions.

9.7.1.4 LIMITATIONS ON THE TRANSPORT OF DANGEROUS GOODS

(a) Each AOC holder shall take all reasonable measures to ensure that articles and substances that are specifically identified by name or generic description in the Technical Instructions as being forbidden for transport under any circumstances are not carried on any aircraft.

(b) Each AOC holder shall take all reasonable measures to ensure that articles and substances or other goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances, or infected live animals, are transported only when:

(1) They are exempted by the States concerned under the provisions of the Technical Instructions; or

(2) The Technical Instructions indicate that they may be transported under an approval issued by the State of Origin.

9.7.1.5 CLASSIFICATION

(a) Each AOC holder shall ensure that articles and substances are classified as dangerous goods as specified in the Technical Instructions.

9.7.1.6 PACKAGINGS

(a) Each AOC holder shall ensure that dangerous goods are packaged as specified in the Technical Instructions.

(b) Packagings used for the transport of dangerous goods by air shall:

(1) Be of good quality and shall be constructed and securely closed so as to prevent leakage that might be caused in normal conditions of transport, by vibration, or by changes in temperature, humidity, or pressure;

(2) Be suitable for the contents. Packagings in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods;

(3) Meet the material and construction specifications in the Technical Instructions; and

(4) Be tested in accordance with the provisions of the Technical Instructions.

(c) Packagings for which retention of a liquid is a basic function shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.

(d) Inner packagings shall be so packed, secured, or cushioned as to prevent breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials shall not react dangerously with the contents of the packagings.

(e) No packaging shall be reused until it has been inspected and found free from corrosion or other damage. Where a packaging is reused, all necessary measures shall be taken to prevent contamination of subsequent contents.

(f) If, because of the nature of their former contents, uncleaned empty packagings may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.

(g) No harmful quantity of a dangerous substance shall adhere to the outside of packagings.

9.7.1.7 LABELLING AND MARKING

(a) Each AOC holder shall ensure that packagings, overpacks, and freight containers are labelled as specified in the Technical Instructions.

(b) Each AOC holder shall ensure that packagings, overpacks, and freight containers are marked with:

(1) The proper shipping name of their contents;

(2) The United Nations number, when assigned; and

(3) Other such markings as may be specified in the Technical Instructions.

(c) Each AOC holder shall ensure that packagings manufactured to a specification contained in the Technical Instructions shall be so marked in accordance with the Technical Instructions.

(d) Where dangerous goods are carried on a flight that takes place wholly or partly outside the territory of Curaçao, the AOC holder shall ensure that labelling and marking are in the English language in addition to any other language requirements.

9.7.1.8 DANGEROUS GOODS TRANSPORT DOCUMENT

(a) Each AOC holder shall ensure that, except when otherwise specified in the Technical Instructions, dangerous goods are accompanied by a dangerous goods transport document.

(b) Where dangerous goods are carried on a flight that takes place wholly or partly outside the territory of Curaçao, the AOC holder shall ensure that the English language is used for the dangerous goods transport document in addition to any other language requirements.

9.7.1.9 ACCEPTANCE OF DANGEROUS GOODS

(a) No AOC holder may accept dangerous goods for transport until the packaging, overpack, or freight container has been inspected in accordance with the acceptance procedures in the Technical Instructions.

(b) Each AOC holder, or its handling agent, shall use an acceptance checklist that:

(1) Shall allow for all relevant details to be checked; and

(2) Shall be in such a form as will allow for the recording of the results of the acceptance check by manual, mechanical, or computerised means.

(c) Each designated postal operator shall have the procedure for controlling the introduction of dangerous goods in mail into air transport approved by the Authority where the mail is accepted.

Note 1: In accordance with the Universal Postal Union Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.

Note 2: The UPU has established procedures to control the introduction of dangerous goods into air transport through the postal services (see the Universal Postal Union Parcel Post Regulations and Letter Post Regulations).

Note 3: Guidance for approving the procedures established by designated postal operators to control the introduction of dangerous goods into air transport may be found in the Supplement to the Technical Instructions, Part S-1, Chapter 3.

9.7.1.10 INSPECTION FOR DAMAGE, LEAKAGE, OR CONTAMINATION

(a) Each AOC holder shall ensure that:

(1) Packagings, overpacks, and freight containers are inspected for evidence of leakage or damage immediately prior to loading on an aircraft or into a ULD, as specified in the Technical Instructions;

(2) A ULD is not loaded on an aircraft unless it has been inspected as required by the Technical Instructions and has been found free from any evidence of leakage from, or damage to, the dangerous goods contained therein;

(3) Leaking or damaged packagings, overpacks, or freight containers are not loaded on an aircraft;

(4) Any packaging of dangerous goods that is found on an aircraft and appears to be damaged or leaking is removed, or arrangements are made for its removal by an appropriate authority or organisation;

(5) After removal of any leaking or damaged goods, the remainder of the consignment is

inspected to ensure it is in a proper condition for transport and that no damage or contamination has occurred to the aircraft or its load; and

(6) Packagings, overpacks, and freight containers are inspected for signs of damage or leakage upon unloading from an aircraft or a ULD and, if there is evidence of damage or leakage, the area where the dangerous goods were stowed is inspected for damage or contamination.

9.7.1.11 REMOVAL OF CONTAMINATION

(a) Each AOC holder shall ensure that:

(1) Any contamination found as a result of the leakage or damage of dangerous goods is removed without delay; and

(2) An aircraft that has been contaminated by radioactive materials is immediately taken out of service and not approved for return to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

9.7.1.12 LOADING RESTRICTIONS AND STOWAGE OF DANGEROUS GOODS

(a) Each AOC holder shall ensure that packagings and overpacks containing dangerous goods and freight containers containing radioactive materials are loaded and stowed in accordance with the Technical Instructions.

(1) PASSENGER CABIN AND FLIGHT DECK. Each AOC holder shall ensure that dangerous goods are not carried in an aircraft cabin occupied by passengers, or on the flight deck, unless otherwise specified in the Technical Instructions.

(2) CARGO COMPARTMENTS. Each AOC holder shall ensure that dangerous goods are loaded, segregated, stowed, and secured on an aircraft as specified in the Technical Instructions.

(3) DANGEROUS GOODS DESIGNATED FOR CARRIAGE ONLY ON CARGO AIRCRAFT. Each AOC holder shall ensure that packagings of dangerous goods bearing the “Cargo Aircraft Only” label are carried on a cargo aircraft and are loaded as specified in the Technical Instructions and in a manner that a crew member or other authorised person can see, handle, and where size and weight permit, separate such packagings from other cargo in flight.

(b) Packagings containing dangerous goods shall be separated when stowing, as follows:

(1) Those packagings containing dangerous goods that may react dangerously with other packagings shall not be stowed next to each other on an aircraft or in a position that may allow interaction between them in the event of a leakage.

(2) Those packagings containing toxic and infectious substances shall be stowed on an aircraft in accordance with the Technical Instructions.

(3) Those packagings containing radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals, and undeveloped film and secured in flight in accordance with the Technical Instructions.

(c) The AOC holder shall protect and secure any dangerous goods in such a manner that will prevent any movement in flight that might change the orientation of the packagings.

9.7.1.13 PROVISION OF INFORMATION

(a) Information to ground personnel. L. Each AOC holder shall ensure that:

(1) Information is provided to enable ground personnel to carry out their duties with regard to the transport of dangerous goods, including the actions to be taken in the event of incidents and accidents involving dangerous goods; and

(2) Where applicable, the information referred to in paragraph 9.7.1.13(a)(1) of this subsection is also provided to the handling agent.

(b) Information to passengers. Each AOC holder shall ensure that information is promulgated as required by the Technical Instructions so that passengers are warned as to the types of goods that they are forbidden from transporting on board an aircraft.

(c) Information to shippers. Each AOC holder shall ensure that information is promulgated as required by the Technical Instructions so that shippers of dangerous goods are provided with the information as required by the Technical Instructions to enable them to carry out their responsibilities with regard to the transport of dangerous goods and the action to be taken in the event of emergencies arising involving dangerous goods.

(d) Information to acceptance points personnel. Each AOC holder and, where applicable, the handling agent shall ensure that notices are provided at acceptance points for cargo, giving information about the transport of dangerous goods, including the actions to be taken in the event of emergencies arising involving dangerous goods.

(e) Information to crew members. Each AOC holder shall ensure that information is provided in the OM to enable crew members to carry out their responsibilities with regard to the transport of dangerous goods, including the actions to be taken in the event of emergencies arising involving dangerous goods.

(f) Nformation to the PIC. Each AOC holder shall ensure that the PIC is provided, as early as is practicable before the departure of the flight, with written information, as specified in the Technical Instructions.

(g) Information in the event of an in-flight emergency. If an in-flight emergency occurs, the PIC shall, as soon as the situation permits, inform the appropriate ATS unit, for the information of the aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.

(h) Information in the event of an aircraft incident or accident. Each AOC holder that is involved in an aircraft incident or accident shall:

(1) As soon as possible, inform the appropriate authority of the State in which the aircraft incident or accident occurred of any dangerous goods carried; and

(2) On request, provide any information required to minimise the hazards created by any dangerous goods carried.

9.7.1.14 DANGEROUS GOODS TRAINING PROGRAMME AND MANUAL

(a) Each AOC holder shall have a dangerous goods training programme approved by the Authority, whether or not the AOC holder is approved to transport dangerous goods.

(b) Crew members, passenger-handling personnel, and security personnel employed by the AOC holder that deal with the screening of passengers and their baggage and cargo shall receive initial and recurrent training that covers, at a minimum, the areas identified in Part 8 of these regulations to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify dangerous goods, and what requirements apply to the carriage of such goods by passengers.

(c) At a minimum, the dangerous goods training programme shall include the items as listed in 8.10.1.10 of these regulations.

(d) The AOC holder shall provide such information in the OM as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

9.7.1.15 DANGEROUS GOODS INCIDENT AND ACCIDENT REPORTS

(a) Each AOC holder shall report dangerous goods incidents and accidents to the Authority within 72 hours of the events, unless exceptional circumstances prevent this.

(b) Each AOC holder shall report undeclared or misdeclared dangerous goods discovered in cargo or passenger's baggage to the Authority within 72 hours of the discovery, unless exceptional circumstances prevent this.

9.7.1.16 SHIPPER'S RESPONSIBILITIES

(a) No person shall offer a packaging, overpack, or freight container containing dangerous goods for shipment by air unless that person has, in accordance with the Technical Instructions, ensured that the dangerous goods are:

(1) Properly classified, packed, marked, and labelled and in the proper condition for transport by air in accordance with the relevant regulations; and

(2) Accompanied by a properly executed dangerous goods transport document.

(b) In completing the dangerous goods transport document for the AOC holder, the shipper shall, in accordance with the Technical Instructions and any other regulations of Curaçao:

(1) Declare that the dangerous goods are fully and accurately described by their proper shipping names;

(2) Declare that the dangerous goods are classified, packed, marked, and labelled and in the proper condition for transport;

(3) Complete the form in both the language of Curaçao and in English when the dangerous goods are to be carried either wholly or partly outside Curaçao; and

(4) Sign the form.

9.7.1.17 DANGEROUS GOODS SECURITY PROVISIONS

(a) Each shipper and operator and other persons engaged in the transport of dangerous goods by air shall establish security measures, consistent with these regulations, to minimise theft or misuse of dangerous goods that may endanger persons, property, or the environment.

9.8 CARGO COMPARTMENT SAFETY

9.8.1.1 TRANSPORT OF ITEMS IN THE CARGO COMPARTMENT

(a) The AOC holder shall establish policy and procedures for the transport of items in the cargo compartment, which include the conduct of a specific safety risk assessment. The risk assessment shall include at least the:

(1) Hazards associated with the properties of the items to be transported;

(2) Capabilities of the operator;

(3) Operational considerations (e.g., area of operations, diversion time);

(4) Capabilities of the aeroplane and its systems (e.g., cargo compartment fire suppression capabilities);

(5) Containment characteristics of ULDs;

(6) Packing and packaging;

(7) Safety of the supply chain for items to be transported; and

(8) Quantity and distribution of dangerous goods items to be transported.

Note 1: Additional operational requirements for the transport of dangerous goods are contained in 9.7 of this part.

Note 2: Guidance on the hazards associated with the transport of items in the cargo compartment, the conduct of a specific safety risk assessment in accordance with ICAO Doc 9859, Safety Management Manual (SMM)*, and the responsibilities for the transport of dangerous goods, is contained in ICAO Doc 10102,* Cargo Compartment Operational Safety Manual [working title].

9.8.1.2 FIRE PROTECTION

(a) The elements of the cargo compartment(s) fire protection system as approved by the State of Design or State of Registry, and a summary of the demonstrated cargo compartment fire protection certification standards, shall be provided in the AFM or other documentation supporting the operation of the aeroplane.

Note: Guidance on the elements of cargo compartment fire protection and associated demonstrated standards are provided in the Guidance for Safe Operations Involving Cargo Compartments *(Doc 10102).*

(b) The AOC holder shall establish policy and procedures that address the items to be transported in the cargo compartment. These shall ensure to a reasonable certainty that in the event of a fire involving those items, it can be detected and sufficiently suppressed or contained by the elements of the aeroplane design associated with cargo compartment fire protection, until the aeroplane makes a safe landing.

Note: Guidance on policies and procedures that address the items to be transported in the cargo compartment are provided in the Guidance for Safe Operations Involving Cargo Compartments *(Doc 10102).*

(c) Each cargo compartment within aircraft operated by AOC holders shall be equipped with a built-in fire detection system, and a means to suppress a fire, except when the presence of a fire would be easily discovered by a crew member while at the crew member's station and the crew member has a means to extinguish it rapidly.

(d) The means to suppress a fire for each cargo compartment not accessible to a crew member shall include a built-in fire suppression system.

(e) For aeroplanes of a maximum certificated take-off mass in excess of 45 000 kg or with a passenger seating capacity greater than 60, cargo compartment fire suppression systems, including their extinguishing agents, shall be designed so as to take into account a sudden and extensive fire such as could be caused by an explosive or incendiary device.

(f) For those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2025, the elements of the aeroplane design associated with cargo compartment fire protection, and a summary of the demonstrated standards that were considered in the process of aeroplane certification, shall be included in the required aeroplane documentation and made available to the operator.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 9 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 9.3.2.3 reflects a standard required by 9.3.2.3 of this part.

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PART 9 – IMPLEMENTING STANDARDS

IS 9.2.1.3(B) CONTENTS OF AN AOC

(a) The AOC will be based on the following template:

AIR OPERATOR CERTIFICATE (AOC)		
CURAÇAO		
	MINISTRY OF **TRAFFIC, TRANSPORT & URBAN PLANNING** **Curaçao Civil Aviation Authority**	
	Address: Seru Mahuma z/n, Curacao Telephone: +599-9-839-3319 Fax: +599-9-868-9924 E-mail: civilair@gobiernu.cw	
AOC Number: Expiry Date:	Operator Name: DBA trading name: Operator address: Telephone: E-mail:	Operational Points of Contact:
This certificate certifies that _____ is authorized to perform commercial air transport operations, as defined in the attached Operations Specifications, in accordance with the Operations Manual and the Civil Aviation Act of _____ and the corresponding regulations prescribed thereunder.		
Date of issue: Place of Issue: **Curaçao**	Name and Signature: Title:	

IS 9.2.1.3(C) CONTENTS OF OPERATIONS SPECIFICATIONS

(a) The operations specifications layout will be as follows:

OPERATIONS SPECIFICATIONS
Subject to the approved conditions in the Operations Manual



MINISTRY OF
TRAFFIC, TRANSPORT AND URBAN PLANNING
CURAÇAO CIVIL AVIATION AUTHORITY

	Address: Seru Mahuma z/n Telephone: +599-9-839-3319 Fax: +599-9-868-9924 E-mail: civilair@gobiernu.cw		
AOC#:[2]	Operator Name:[3]	Date:[4]	Signature: Director General
DBA trading name:[3]			
Aircraft Make:[5a]	Aircraft Model:	Aircraft Series:	
Registration Marks:[5b]			

Types of Operation:	☐ Passengers	☐ Cargo	☐ Other:[6]
Area(s) of operation:[7]			
Special limitations:[8]	None		

Specific Approval:	**Yes**	**No**	**Description**			**Remarks**
Dangerous goods	☐	☐				
Low - visibility operations:						
Approach and landing	☐	☐	CAT:[10] RVR: __ m DH: __ ft			
Take-off	☐	☐	RVR:[11]			
Operational credit(s)	☐	☐	[12]			
RVSM[13] ☐ N/A	☐	☐				
EDTO[14] ☐ N/A	☐	☐	Threshold Time:[15] Maximum diversion time:[15]	----- -----	minutes minutes	
AR navigation specifications for PBN operations	☐	☐	[16]			
Continuing airworthiness	X	X	[17]			
EFB	☐	☐	[18]			
Other[19]	☐	☐				

1. Insert the telephone contact details of the Authority, including the country code. Provide the Authority's email and fax if available.

2. Insert the associated AOC number.

3. Insert the operator's registered name and the operator trading name, if different. Insert "DBA" before the trading name (for "doing business as").

4. Insert the issuance date of the operations specifications (dd-mm-yyyy) and the signature of the Authority representative.

5a. Insert the CAST/ICAO designation of the aircraft make, model, and series or master series, if a series has been designated (e.g., Boeing-737-3K2 or Boeing-777-232). The CAST/ICAO taxonomy is available at: http://www.intlaviationstandards.org/.

5b. List the aircraft registration marks that are applicable in 5a.

6. Specify other type of transportation (e.g., emergency medical service).

7. List the geographical area(s) of authorised operation (by geographical coordinates or specific routes, flight information region, or national or regional boundaries) as defined by the Issuing Authority.

8. List the applicable special limitations (e.g., VFR only, day only, etc.).

9. List the most permissive criteria for each specific approval (with appropriate criteria).

10. Insert the applicable instrument approach operation classified as Type B (CAT II or III). Insert the minimum RVR in metres and DH in feet. Use one line per listed approach category.

11. Insert the approved minimum take-off RVR in metres, or the equivalent horizontal visibility if RVR is not used. One line per approval may be used if different approvals are granted.

12. List the airborne capabilities (e.g., automatic landing, HUD, EVS, SVS, CVS) and associated operational credit(s) granted.

13. Check the not applicable (N/A) box only if the aircraft maximum ceiling is below FL 290.

14. List the EDTO specific approvals, if applicable. If EDTO does not apply, select "N/A." If EDTO approval does not apply based on the provisions in ICAO Annex 6, Part I: 4.7, select "N/A." Otherwise, a threshold time and maximum diversion time must be specified.

15. The threshold time and maximum diversion time may also be listed in distance (NM). Details of each particular aeroplane-engine combination for which the threshold time is established and maximum diversion time has been granted may be listed under "Remarks." One line per approval may be used if different approvals are granted.

16. PBN: Use one line for each PBN AR navigation specification approval (e.g., RNP, AR, APCH), with appropriate limitations listed in the "Description" column.

17. Insert the name of the person/organisation responsible for ensuring that the continuing airworthiness of the aircraft is maintained and the regulations that require the work, within the AOC regulation or a specific approval (e.g., EC2042/2003, Part M, Subpart G).

18. List the EFB functions used for the safe operation of aeroplanes and any applicable limitations.

19. Enter other authorisations or data, using one line (or one multi-line block) per authorisation (e.g., special approach authorisation, approved navigation performance).

IS 9.3.2.2 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(a) Each AOC holder shall make arrangements to ensure continuity of supervision if operations are conducted in the absence of any required management personnel.

(b) Required management personnel shall be contracted to work sufficient hours, such that the management functions are fulfilled.

(c) A person serving in a required management position for an AOC holder shall have understanding of the aviation act of Curaçao and the regulations prescribed thereunder.

(d) A person serving in a required management position for an AOC holder may not serve in a similar position for any other AOC holder, unless an exemption is issued by the Authority.

(e) The minimum requirements for an Accountable executive are:

(1) Bachelor Degree in aviation or an equivalent level of knowledge;

(2) 10 years of experience in aviation, of which 3 years must have been in a supervisory capacity;

(3) Experience in aircraft maintenance as well as in flight/ground operations;

(f) The minimum initial qualifications for an Operations manager are:

(1) An ATPL; and

(2) 3 years' experience as PIC in commercial air transport operations:

(i) Of large aircraft, if the AOC holder operates large aircraft; or

(ii) Of either large or small aircraft, if the AOC holder operates only small aircraft.

(g) The minimum qualifications for a Chief pilot/ Fleet manager are:

(1) An ATPL with the appropriate ratings for at least one of the aircraft used in the AOC holder's operations; and

(2) 3 years' experience as PIC in commercial air transport operations:

(i) In large aircraft, if the AOC holder operates large aircraft; or

(ii) In either large or small aircraft, if the AOC holder operates only small aircraft.

Note: The Authority may accept a commercial pilot licence with instrument rating in lieu of the ATPL if the PIC requirements for the operations conducted require only a commercial certificate.

(h) The minimum qualifications for a Continuing Airworthiness manager are:

(1) An AMT licence with airframe and powerplant ratings;

(2) 5 years' experience in maintaining the same category and class of aircraft used by the AOC holder, including 3 years in the capacity of returning aircraft to service; and

(3) 3 year of supervisory experience maintaining the same category and class of aircraft used by the AOC holder.

(i) The minimum qualifications for a Chief inspector are:

(1) An AMT licence with airframe and powerplant ratings; and

(2) 5 years' experience in maintaining the same category and class of aircraft used by the AOC holder, including 3 years in the capacity of returning aircraft to service.

(i) The minimum entry qualifications for a Cabin Crew Manager are:

(1) A working knowledge of the contents of the air operator's operations manual, AOC and operations specifications as is necessary for the performance of the assigned duties;

(2) A working knowledge of such of the provisions of the Civil Aviation Regulations, as are necessary for the performance of the assigned duties;

(3) A minimum of 5 years experience and qualifications relevant to their duties and responsibilities.

(j) The minimum entry qualifications for a Training Manager are:

(1) Practical experience and expertise in the application of aviation safety standards and safe operating practices;

(2) Comprehensive knowledge of:

(a) PART 9 and it's IS and any associated requirements and procedures;

(b) The AOC holder's Operations Specifications;

(c) The nominated post holder or his deputy should be a current Type Rating Instructor on a type/ class operated under the AOC;

(d) The nominated post holder should have a thorough knowledge of the AOC holder's crew training concept for Flight Crew and for Cabin Crew when relevant.

(k) The minimum entry qualifications for a Ground Services Manager are:

(1) Practical experience and expertise in the application of aviation safety standards and safe operating practices;

(2) A comprehensive knowledge of the provisions of the Civil Aviation Regulations, as are necessary for the performance of the assigned duties.

(3) A Comprehensive knowledge of:

(a) The AOC holder's Operations Specifications;

(b) The nominated post holder should have a thorough knowledge of the AOC Holder's ground operations concept and should include the basic knowledge of the following:

(ii) Passenger handling

(iii) Baggage handling

(iv) Cargo/ Mail handling

(v) Aircraft handling & Loading

(vi) Load control

(vii) Airside Management & Safety

(viii) Aircraft movement control

(ix) Ground handling agreements

(x) Airport handling ground support equipment specifications

(xi) Foreign Object Damage awareness training

(xii) Dangerous Goods Training

(l) The minimum entry qualifications for a Security Manager are:

(1) Practical experience and expertise in the application of aviation safety and security standards and safe operating practices;

(2) Comprehensive knowledge of:

(a) The National Civil Aviation Security Programme (NCASP), and, for the protection of aircraft, facilities and personnel from acts of unlawful interference;

(b) Have a thorough knowledge of AOC holder Approved Air Operator Security Manual;

(c) A minimum of two years experience and qualifications relevant to their duties and responsibilities;

(m) An AOC holder may employ a person who does not meet the appropriate airman qualifications or experience if the Authority issues an exemption finding that that person has comparable experience and can effectively perform the required management functions.

(n) Acceptance Process, all nominated post holders are subject to the acceptance of the Authority. For the acceptance/ approval process, the Executive manager is requested to send with a written request the nominated post holder(s):

(1) Candidate's detailed CV;

(2) Applicable diplomas and certificates to support the CV;

(3) Any other document providing candidate's experience and expertise;

(4) Proof of good conduct (verklaring omtrent goedgedrag);

(5) If the employee is a foreigner, he/ she shall submit:

(a) a residence permit or

(b) a declaration in connection with admission for an indefinite period, or

(c) a declaration stating that the Landsverordening Toelating en Uitzetting (LTU) is not applicable, or a naturalization decision;

(d) a work permit.

(o) Evaluation, the Authority acceptance will be based on:

(1) Fulfilling basic and specific requirements - evaluation of received documents; Background check - no criminal record;

(2) Interview- understanding of the role, duties and responsibilities as post holder.

IS 9.3.2.3 QUALITY SYSTEM

(a) In order to show compliance with 9.3.2.3 of this part, an AOC holder shall establish its quality system in accordance with the instruction and information contained in the following paragraphs.

1.0 General

1.1 Terminology.

1.1.1 The terms used in the context of the requirement for an operator's quality system have the following meaning:

(a) **Executive manager.** The person acceptable to the Authority, who has corporate authority for ensuring that all operational and maintenance functions can be financed and performed to the standard required by the Authority and any additional requirements defined by the operator.

(b) **Quality assurance.** As distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions that are required to provide adequate confidence that a product or service satisfies quality requirements.

1.2 Purpose of the Quality System.

1.2.1 The quality system shall enable an operator to monitor compliance with these regulations, the operator's manual system, and any other standards specified by the operator, or the Authority, to ensure safe operations and airworthy aircraft and aeronautical products.

1.3 Organisational Structure.

1.3.1 The operator may specify the basic structure of the quality system according to the size and complexity of the operation to be monitored.

1.3.2 References to large and small operators elsewhere in these regulations are governed by aircraft capacity (i.e., more or less than 20 seats) and by mass (i.e., greater or less than10,000kg (10 tonnes) maximum certificated take-off mass). Such terminology is not relevant when considering the scale of an operation and the quality system required. In the context of quality systems, therefore, operators shall be categorised according to the number of full-time personnel.

1.3.3 An operator shall be categorised according to the number of full-time personnel. Operators that employ 5 or fewer full-time employees are considered to be "very small" operations, while those employing between 6 and 20 full-time employees are regarded as "small" operations, as far as quality systems are concerned. Full time in this context means employed for not less than 35 hours per week, excluding vacation periods.

1.3.4 Complex quality systems may be inappropriate for a small or very small operation, and the clerical effort required to develop manuals and quality procedures for a complex system may stretch that operator's resources. It is therefore accepted that such an operator may tailor its quality system to suit the size and complexity of the operation and allocate resources accordingly.

1.3.5 For small and very small operators, it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist shall have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken.

1.3.6 A small operator may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and/or qualified organisations to perform the quality audits on behalf of the quality manager.

1.4 Scope.

1.4.1 As a minimum, the quality system shall address the following:

(a) Relevant terminology;

(b) The applicable requirements of these regulations;

(c) Any additional standards and practices of the operator;

(d) A description of the operator, including the operational structure;

(e) Identification of those persons responsible for the development, establishment, and management of the quality assurance programme, including a description of their duties and responsibilities;

(f) Relevant portions of manuals, reports, and records, including a distribution list of all controlled copies;

(g) The operator's quality policy;

(h) Quality procedures;

(i) A quality assurance programme, including:

(1) The schedule of the monitoring process;

(2) Audit procedures;

(3) Reporting procedures;

(4) Follow-up and corrective action procedures; and

(5) A recording system.

(j) The required financial, material, and human resources; and

(k) Training requirements.

1.5 Safety Attributes.

1.5.1 Where appropriate, an operator shall incorporate the following safety attributes into its policies, procedures, and processes:

(a) Authority;

(b) Responsibility;

(c) Procedures;

(d) Controls;

(e) Process measurements; and

(f) Interfaces.

1.6 Relevant Documentation.

1.6.1 The required quality system may be documented in the OM or in a separate Quality Manual. In either instance, the documentation shall:

(a) Contain instructions and information to allow the personnel concerned to perform their duties with a high degree of safety;

(b) Be easy to revise;

(c) Allow personnel to determine the current revision status;

(d) Have the date of the last revision on each page;

(e) Not be contrary to any applicable regulation or the operator's operations specifications; and

(f) Reference applicable regulations.

1.6.2 Each document defined within the structure of an operator's quality system shall be subject to document control. Document control procedures shall ensure that the documents are:

(a) Authorised;

(b) Adequate;

(c) Security classified;

(d) Standardised when completed;

(e) Revised and amended when required;

(f) Appropriately distributed;

(g) Appropriately stored;

(h) Periodically reviewed; and

(i) Appropriately disposed of.

1.7 Quality Policy.

1.7.1 An operator shall establish a formal, written quality policy statement that is a commitment by the executive manager as to what the quality system is intended to achieve.

1.7.2 The quality policy shall reflect initial and continued compliance with these regulations, the operator's manual system, and any additional requirements defined by the operator or the Authority.

1.7.3 The quality policy shall clearly define the operator's purpose, structure, principal and objectives, and all the services rendered by the operator.

1.8 Quality Management.

1.8.1 With regard to the text in paragraph 9.3.2.2(a) of this part, the term "executive manager" is intended to mean the chief executive/president/managing director/general manager, etc., of the operator's organisation who, by virtue of that position, has overall responsibility (including financial) for managing the organisation.

1.8.2 The executive manager shall have overall responsibility for the operator's quality system, including the frequency, format, and structure of the internal management evaluation activities as prescribed in paragraph 2.11 of this IS.

1.8.3 The function of the quality manager is to monitor compliance with, and the adequacy of, procedures required to ensure safe practices and airworthy aircraft and aeronautical products as required by these regulations.

1.8.4 The quality manager shall be responsible for ensuring that the quality assurance programme is properly established, implemented, and maintained.

1.8.5 The quality manager shall:

(a) Report to the executive manager;

(b) Not be one of the required management personnel; and

(c) Have access to all parts of the operation and, as necessary, to any contractor's or subcontractor's operation.

1.8.6 In the case of a very small or small operator, as defined in 1.3.3 of this IS, the positions of the executive manager and quality manager may be combined.

1.9 Feedback System.

1.9.1 The quality system shall include a feedback system to the executive manager to ensure that corrective action is identified and promptly addressed.

1.9.2 The feedback system shall specify who is required to rectify discrepancies and non-compliance in each particular case, and the procedure to be followed if corrective action is not completed within an appropriate timescale.

2.0 Quality Assurance Programme

2.1 Introduction.

2.1.1 The quality assurance programme shall include all planned and systematic actions necessary to provide confidence that operational and maintenance functions are conducted in accordance with all applicable requirements, standards, and procedures.

2.2 Quality Assurance Programme Plan.

2.2.1 An operator shall describe its quality assurance duties, responsibilities, and procedures in a programme plan.

2.2.2 Terms and elements defined in the plan shall be consistent with those outlined in the operator's manual system.

2.2.3 Copies of the programme plan shall be distributed to all personnel concerned.

2.2.4 Revisions shall be made as necessary to ensure the plan continues to reflect the operator's current quality assurance duties, responsibilities, and procedures.

2.3 Monitoring.

2.3.1 The purpose of monitoring within the quality system is primarily to investigate and judge the effectiveness of the quality system and thereby to ensure that defined policy and operational and maintenance standards are continuously complied with.

2.3.2 Monitoring activity is based upon:

(a) Quality inspections;

(b) Quality audits;

(c) Corrective action; and

(d) Follow-up.

2.3.3 The operator shall establish and publish a quality procedure to monitor regulatory compliance on a continuing basis. This monitoring activity shall be aimed at eliminating the causes of unsatisfactory performance.

2.3.4 Any non-compliance identified as a result of monitoring shall be communicated to the manager responsible for taking corrective action or, if appropriate, to the executive manager. Such non-compliance shall be recorded, for the purpose of further investigation, in order to determine the cause and to enable the recommendation of appropriate corrective action.

2.4 Quality Inspection.

2.4.1 The primary purpose of a quality inspection is to observe a particular event, action, document, etc., in order to verify whether established procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.

2.4.2 Typical subject areas for quality inspections are:

(a) Actual flight operations;

(b) Ground de-icing/anti-icing;

(c) Flight support services;

(d) Load control;

(e) Maintenance;

(f) Technical standards; and

(g) Training standards.

2.4.3 Typical methods used for quality inspections for maintenance include:

(a) Product sampling – the monitoring of a representative sample of aeronautical products of the aircraft fleet;

(b) Defect sampling – the monitoring of defect rectification performance;

(c) Concession sampling – the monitoring of any concession to not carry out maintenance on time;

(d) On-time maintenance sampling – the monitoring of when (flying hours, calendar time, flight cycles, etc.) aircraft and aeronautical products are brought in for maintenance; and

(e) Sample reports of unairworthy conditions and maintenance errors on aircraft and components.

2.5 Quality Audit.

2.5.1 A quality audit is a systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

2.5.2 Audits shall include at least the following quality assurance procedures and processes:

(a) A statement explaining the scope of the audit;

(b) Planning and preparation;

(c) Gathering and recording evidence; and

(d) Analysis of the evidence.

2.5.3 Techniques that contribute to an effective audit are:

(a) Interviews or discussions with personnel;

(b) A review of published documents;

(c) The examination of an adequate sample of records;

(d) The observation of the activities that make up the operation; and

(e) The preservation of documents and the recording of observations.

2.6 Auditors.

2.6.1 An operator may decide, depending upon the complexity of the operation, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team shall have relevant operations and/or maintenance experience.

2.6.2 The responsibilities of the auditors shall be clearly defined in the relevant documentation.

2.7 Auditor's Independence.

2.7.1 Auditors shall not have any day-to-day involvement in the area of the activity that is to be audited. An operator may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An operator whose structure and size does not justify the establishment of full-time auditors may undertake the audit function by the use of part-time personnel from within its own operation or from external sources under the terms of an agreement acceptable to the Authority. In all cases, the operator shall develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist is familiar with the type of operation and/or maintenance conducted by the operator.

2.7.2 The operator's quality assurance programme shall identify the persons within the operation who have the experience, responsibility, and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record any concerns or findings and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific timescales; and

(e) Report directly to the quality manager.

2.8 Audit Scope.

2.8.1 An operator shall monitor compliance with the operational and maintenance procedures it has designed to ensure safe operations, airworthy aircraft and aeronautical products, and the serviceability of both operational and safety equipment. In doing so it shall, as a minimum and where appropriate, monitor:

(a) Plans and company objectives;

(b) Operational and maintenance procedures;

(c) Flight safety

(d) Operator's certification, including operations specifications;

(e) Supervision;

(f) Aircraft performance;

(g) All-weather operations;

(h) Mass, balance, and aircraft loading;

(i) Instruments and safety equipment;

(j) Manuals, logs, and records;

(k) Flight and duty time limitations, rest requirements, and scheduling;

(l) Aircraft maintenance – operations interface;

(m) Use of the MEL;

(n) Maintenance programmes and continuing airworthiness;

(o) AD management;

(p) Maintenance accomplishment;

(q) Defect deferral;

(r) Dangerous goods;

(s) Security; and

(t) Training.

2.8.2 Whatever arrangements are made, an operator shall retain the ultimate responsibility for the quality system and for the completion and follow-up of corrective action.

2.9 Audit Scheduling.

2.9.1 A quality assurance programme shall include a defined audit schedule and a periodic review cycle area by area.

2.9.2 An operator shall establish a schedule of audits to be completed during a specified calendar period. All aspects of the operation shall be reviewed within every 12-month period in accordance with the quality assurance programme unless an extension to the audit period is accepted as explained below. An operator may increase the frequency of audits at its discretion but shall not decrease the frequency without the agreement of the Authority. Audit frequency shall not be decreased beyond a 24-month-period interval.

2.9.3 When an operator defines the audit schedule, significant changes to the management, operation, technologies, or these regulations shall be considered.

2.9.4 The schedule shall be flexible and shall allow unscheduled audits when trends are identified.

2.9.5 If the independent quality audit function is being conducted by external auditors, the audit schedule shall be shown in the relevant documentation.

2.10 Corrective Action and Follow-Up.

2.10.1 Corrective Action Plans

(a) The quality assurance programme shall include procedures to ensure that corrective action plans are developed in response to findings. These procedures shall monitor corrective actions to verify their effectiveness and ensure their completion. Operational responsibility and accountability for the implementation of corrective action shall reside with the department cited in the report identifying the finding. The executive manager shall have the ultimate responsibility for resourcing the corrective action and ensuring, through the quality manager, that the corrective action has re-established compliance with the requirements of the Authority and any additional requirements defined by the operator.

(b) Subsequent to the quality inspection/audit, the individuals responsible for managing a quality assurance programme shall facilitate the corrective action process by establishing:

(1) The identification and seriousness of any findings or concerns and any need for immediate corrective action;

(2) The analysis of objective evidence to determine the root cause(s) of the finding or concern;

(3) The identification of planned corrective steps that will ensure that the apparent violation or concern does not recur;

(4) An implementation schedule, including a time frame for putting corrective steps in place; and

(5) The individuals or departments responsible for implementing the corrective action.

2.10.2 Follow-Up.

(a) Follow-up audits shall be scheduled when necessary to verify that corrective action has been performed and that it has been effective.

(b) The quality manager shall:

(1) Ensure that corrective action plans are developed in response to findings of non-compliance;

(2) Verify that corrective action plans include the elements outlined in paragraph 2.10.1 of this IS;

(3) Monitor the implementation and completion of corrective action plans;

(4) Provide management with an independent assessment of corrective action plan development, implementation, and completion; and

(5) Initiate scheduled and/or unannounced follow-up evaluations to ensure the effectiveness of corrective steps specified in corrective action plans.

2.11 Management Evaluation.

2.11.1 A management evaluation is a comprehensive, systematic, documented review by management of the quality system and the operator's policies and procedures. The management evaluation shall consider:

(a) The results of quality inspections, audits, and any other indicators; and

(b) The overall effectiveness of the management organisation in achieving stated objectives.

2.11.2 A management evaluation shall identify and correct trends and shall prevent, where possible, future nonconformities. Conclusions and recommendations made as a result of an evaluation shall be submitted in writing to the responsible manager for action. The responsible manager shall be a person who has the authority to resolve deficiencies or discrepancies and take action.

2.11.3 The executive manager shall decide upon the frequency, format, and structure of internal management evaluation activities.

2.12 Recording.

2.12.1 The operator shall maintain accurate, complete, and readily accessible records documenting the results of its quality assurance programme. Records are essential data that enable an operation to analyse and determine the root causes of non-compliance so that areas of non-compliance can be identified and addressed.

2.12.2 The following records shall be retained for a period of 5 years:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Special evaluation reports, including trends or other reasons associated with scheduling a special evaluation;

(d) Responses to findings or concerns contained in the reports;

(e) Corrective action plans and reports submitted in response to findings;

(f) Follow-up and closure reports; and

(g) Management evaluation reports.

2.12.3 An operator shall maintain and secure the records on its premises.

2.12.4 All records shall be made available to the Authority for review.

2.12.5 Proprietary information shall be protected in accordance with applicable laws and regulations.

3.0 Quality Assurance Responsibility for Contractors

3.1 Contractors.

3.1.1 An operator may decide to contract certain functions to external organisations for the provision of services related to areas such as:

(a) Ground de-icing/anti-icing;

(b) Ground handling;

(c) Maintenance;

(d) Flight support (including performance calculations, flight planning, navigation database, and dispatch);

(e) Training; and

(f) Manual preparation.

3.1.2 The ultimate responsibility for the product or service provided by the subcontractor shall remain with the operator. A written agreement shall exist between the operator and the contractor clearly defining the safety-related services and quality to be provided. The contractor's safety-related activities relevant to the agreement shall be included in the operator's quality assurance programme.

3.1.3 The operator shall ensure that the subcontractor has the necessary authorisation or approval when required and the resources and competent personnel to undertake the task.

4.0 Quality-Related Briefings and Training

4.1 General.

4.1.1 An operator shall establish effective, well-planned, well-resourced, quality-related briefings for all personnel.

4.1.2 Those responsible for managing the quality system shall receive training covering:

(a) An introduction to the concept of the quality system;

(b) Quality management;

(c) The concept of quality assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Reporting and recording; and

(g) The way in which the quality system functions in the operation.

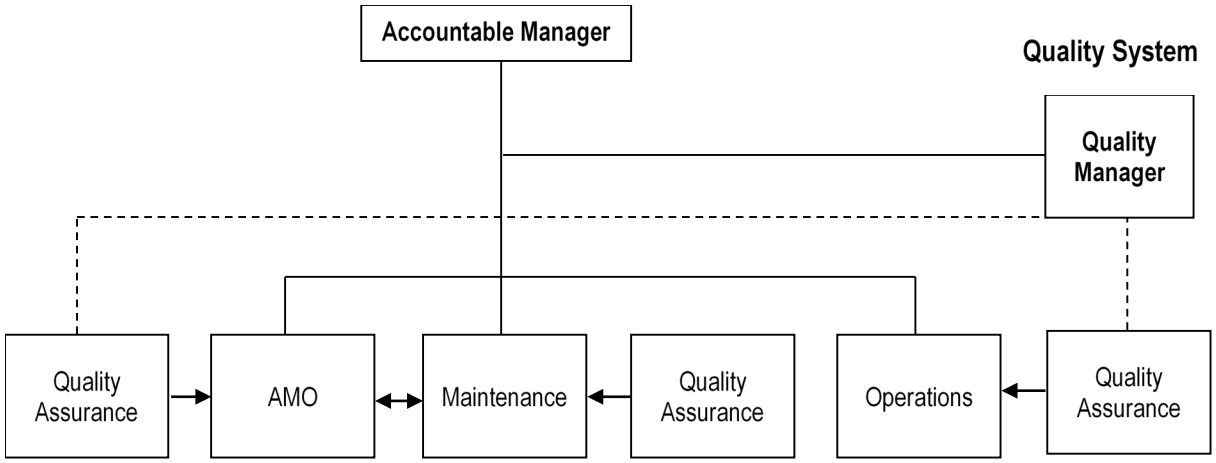
4.1.3 Time shall be provided to train every person involved in quality management and to brief those not responsible for managing the quality system. The allocation of time and resources may be governed by the size and complexity of the operation.

4.2 Sources of Training.

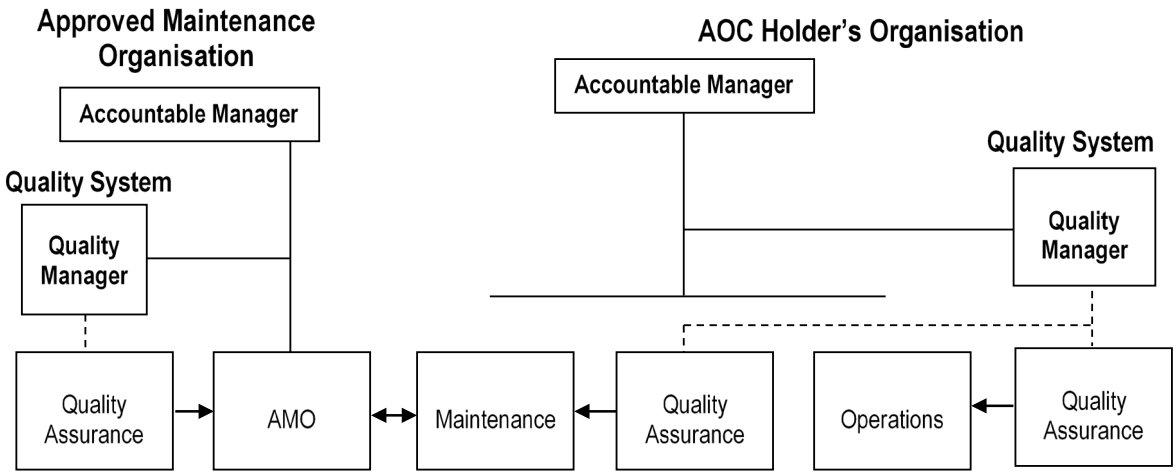
4.2.1 Quality management courses are available from the various National or International Standards Institutions, and an operator may consider whether to offer such courses to those likely to be involved in the management of quality systems. An operator with sufficient and appropriately qualified personnel may consider conducting in-house training.

(b) The following diagrams illustrate two typical examples of operator quality organisations.

(1) A quality system within the AOC holder's organisation when the AOC holder is also an AMO certificated under Part 6 of these regulations.



(2) Quality systems related to an AOC holder's organisation where aircraft maintenance is contracted out to an AMO that is not integrated with the AOC holder.



IS 9.3.2.5 RETENTION OF RECORDS

(a) An operator shall ensure that the following information or documentation is retained for the periods shown in the table below:

Table of Record Retention

Flight Crew Records	Retention Period
Flight, duty, and rest time	2 years
Licence and medical certificate	Until 12 months after the flight crew member has left the employ of the operator
Ground and flight training (all types)	Until 12 months after the flight crew member has left the employ of the operator
Route and aerodrome/heliport qualification training	Until 12 months after the flight crew member has left the employ of the operator
Dangerous goods training	Until 12 months after the flight crew member has left the employ of the operator
Security training	Until 12 months after the flight crew member has left the employ of the operator
Proficiency and qualification checks (all types)	Until 12 months after the flight crew member has left the employ of the operator
Cabin Crew Records	
Flight, duty, and rest time	2 years
Licence, if applicable	Until 12 months after the cabin crew member has left the employ of the operator
Ground and flight training (all types) and qualification checks	Until 12 months after the cabin crew member has left the employ of the operator
Dangerous goods training	Until 12 months after the cabin crew member has left the employ of the operator
Security training	Until 12 months after the cabin crew member has left the employ of the operator
Competency checks	Until 12 months after the cabin crew member has left the employ of the operator
Other AOC Holder Personnel Records	
Training/qualification of other personnel for whom an approved training programme is required in these regulations	Until 12 months after the employee has left the employ of the operator
Licence, if required, and medical certificate, if required	Until 12 months after the employee has left the employ of the operator
Proficiency or competency checks, if required	Until 12 months after the employee has left the employ of the operator
Flight Preparation Forms	
Completed load manifest	3 months after completion of the flight
Mass and balance reports	3 months after completion of the flight
Dispatch releases	3 months after completion of the flight
Flight plans	3 months after completion of the flight

Passenger manifests	3 months after completion of the flight
Weather reports	3 months after completion of the flight
Flight Recorder Records	
Cockpit voice recordings	Preserved after an accident or incident for 60 days, or longer if requested by the Authority
Flight data recordings	Preserved after an accident or incident for 60 days, or longer if requested by the Authority
Aircraft Technical Log	
Journey records section	2 years
Continuing airworthiness records section	2 years
Aircraft Continuing Airworthiness Records	
Total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts	3 months after the unit to which they refer has been permanently withdrawn from service
Current status of compliance with all mandatory continuing airworthiness information	3 months after the unit to which they refer has been permanently withdrawn from service
Appropriate details of modifications and repairs to the aircraft and aeronautical products	3 months after the unit to which they refer has been permanently withdrawn from service
Total time in service (hours, calendar time, and cycles, as appropriate) since the last overhaul of the aircraft or aeronautical products subject to a mandatory overhaul life	3 months after the unit to which they refer has been permanently withdrawn from service
The detailed continuing airworthiness records to show all requirements for a maintenance release have been met	1 year after signing of the maintenance release
Other Records	
Operational flight plan	3 months after completion of the flight
Quality system records	5 years
Dangerous goods transport document	6 months after completion of the flight
Dangerous goods acceptance checklist	6 months after completion of the flight
Records on cosmic and solar radiation dosage, if the AOC holder operates aircraft that fly above 15 000 m (49 000 ft)	Until 12 months after the crew member has left the employ of the AOC holder

Note: See 9.4.1.5 of this part for details of the journey records section and 9.5.1.8 of this part for details of the continuing airworthiness records section of the aircraft technical log.

IS 9.3.2.8 AIRCRAFT TECHNICAL LOG

(a) The following are two examples of an aircraft technical log:

Name of the operator:[1]	Flight log:[2]	Name of PIC:	Registration:	Sheet no.:[3]
Address of the operator:	PIC's signature:[4]	Name and duty of other crew member(s):	Aircraft type:	Date:

FLIGHT[5]				CHECK	BLOCK TIME			AIRBORNE TIME			LOAD		FUEL ON BOARD[6]		
Nature of Flight[7]	From	To	No. of Ldgs.[8]	Flight Prep.[9]	Off	On	Time	Take-Off	Ldg.	Time	No. of Pax/Cargo (kg/lbs)	Take-Off Mass (kg/lbs)	Uplift	Take-Off[9] (ltrs/kg/lbs)	Ldg:

FLIGHT DATA **BLOCK TIME** REPORT			INCIDENTS/OCCURRENCES/OBSERVATIONS REPORT/DEFECTS NOTED[10]
	Block Time	Landings	State type of report: Operation/Technical/Other[11] Also note any de-/anti-icing as instructed[12]
Total per day			
Total previous report			
Total to report			

FLIGHT DATA **FLIGHT TIME** REPORT			RETURN TO SERVICE	ACTIONS TAKEN[13]
	Flight Time	Next Maintenance Due	Name of certifying staff and applicable regulations	
Total this sheet		Hours	Certifies that the work specified, except as otherwise specified, was carried out in accordance with applicable regulations and that, with respect to that work, the aircraft/aeronautical product is considered ready for return to service.	
Total from previous sheet		Landings	Signature	
Total to report		Date		

1. *The operator's name and address shall be preprinted or printed by hand.*
2. *The flight log shall be filled for:*
   - *Each day*
   - *Each flight crew.*
3. *The sheet number (e.g., yy-nn) shall be preprinted or printed by hand. All sheets shall be identifiable and numbered according to a continuous system that offers the same security when hand printed as when preprinted.*
4. *The PIC's signature states that everything on this sheet is correct.*
5. *For flights from A to A, a summary entry may be made. For all other flights, such as from A to B, an entry shall be made for each flight.*
6. *Total fuel on board (state the units unless preprinted).*
7. *The nature of the flight, such as private, commercial, technical, training, sailplane towing, etc., shall be entered.*
8. *Number of landings, if summary entry.*
9. *Flight preparation according to the OM (PIC's initials) shall state that:*
   - *Mass and balance are within limit.*
   - *Pre-flight check is completed.*
   - *Technical status is checked and aeroplane is accepted by the PIC.*
   - *Passenger manifest/documentation is performed.*
10. *Incidents/Occurrences/Observations Report/Defects Noted (Operation, Technical, Others):*
    - *If no report needs to be made, state "-NIL-."*
    - *If a report must be made, state the type of report.*
11. *Each observation shall be numbered sequentially for each log sheet.*
12. *If de-icing or anti-icing has been applied, state the time and the amount and type of fluid applied or other action taken (e.g., mechanical removal of snow or ice); if oil has been filled, state the time and amount.*
13. *Use the same number as the corresponding observation to link the report and response.*

Address of Operator:	Date:	**CREW**	**LOAD**	**OIL**	**GROUND DEICING**	**Sheet Number 00000001**
	Aeroplane Type: Registration:	Name of Commander: _____ Name and duty of crew member _____	No. of Pax: _____ Mass (kg/lbs) Cargo:_____ Take-off:_____	Engine 1 / Engine 2 Refilled: _____/_____ Total: _____/_____	Type of fluid: _____ Mixture: _____ **Time of Deicing** Commenced: _____ Finished: _____	Last release: _____ Total aeroplane hours: _____ Total aeroplane landing: _____ **Next Maintenance Due:** In hours: _____ In landing: _____

FLIGHT				**PRE-FLIGHT**	**BLOCK TIME**		**AIRBORNE TIME**			**FUEL ON BOARD (LTRS/KG/LBS)**				
Flight Nb:	From:	To:	No. of Ldg:	Name/Signature:	Off:	On:	Time:	Take-off:	Ldg:	Time:	Uplift:	Take-off:	Ldg:	

Defects	**Signature**	**Actions Taken**	**AMO Release to Service**
00000001-1		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
00000001-2		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
00000001-3		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
MEL DEFERRED DEFECT Item MEL Open Date Category Limit Date _____ _____	Captain's Acceptance	Daily Check/Maintenance done:	Agreement number: Date: Place: Time: Name: Signature:

JAR OPS 1: Attachment 1 to ACJ to Appendix 1 to JAR-OPS 1.005(a)

IS 9.3.2.11 FLIGHT SAFETY DOCUMENTS SYSTEM

(a) The following outline addresses the major elements of an AOC holder's flight safety documents system development process, with the aim of ensuring compliance with these regulations.

1.0 Organisation

1.1 A flight safety documents system shall be organised according to criteria that ensure easy access to information required for flight and ground operations contained in the various operational documents composing the system and that facilitate management of the distribution and revision of operational documents.

1.2 Information contained in a flight safety documents system shall be grouped according to the importance and use of the information, as follows:

1.2.1 Time-critical information (i.e., information that can jeopardise the safety of the operation if not immediately available);

1.2.2 Time-sensitive information (i.e., information that can affect the level of safety or delay the operation if not available in a short time period);

1.2.3 Frequently used information;

1.2.4 Reference information (i.e., information that is required for the operation but does not fall under 1.2.2 and 1.2.3 of this IS); and

1.2.5 Information that can be grouped based on the phase of operation in which it is used.

1.3 Time-critical information shall be placed early and prominently in the flight safety documents system.

1.4 Time-critical information, time-sensitive information, and frequently used information shall be placed in cards and quick-reference guides.

2.0 Validation

A flight safety documents system shall be validated before deployment, under realistic conditions. Validation shall involve the critical aspects of the information use, in order to verify its effectiveness. Interactions that can occur among all groups during operations shall also be included in the validation process.

3.0 Design

3.1 A flight safety documents system shall maintain consistency in terminology and in the use of standard terms for common items and actions.

3.2 Operational documents shall include a glossary of terms, abbreviations, and their standard definitions, updated on a regular basis to ensure access to the most recent terminology. All significant terms and abbreviations included in the flight documents system shall be defined.

3.3 A flight safety documents system shall ensure standardisation across document types, including writing style, terminology, use of graphics and symbols, and formatting. This includes a consistent location for specific types of information and the consistent use of units of measurement and codes.

3.4 A flight safety documents system shall include a master index to locate, in a timely manner, information included in more than one operational document.

Note: The master index shall be placed in the front of each document and shall consist of no more than three levels of indexing. Pages containing abnormal and emergency information shall be tabbed for direct access.

3.5 A flight safety documents system shall comply with the requirements of the operator's quality system, if applicable.

4.0 Deployment

Operators shall monitor deployment of the flight safety documents system to ensure appropriate and realistic use of the documents based on the characteristics of the operational environment and in a way that is both operationally relevant and beneficial to operational personnel. This monitoring shall include a formal feedback system for obtaining input from operational personnel.

5.0 Amendment

5.1 Operators shall develop an information gathering, review, distribution, and revision control system to process information and data obtained from all sources relevant to the type of operation conducted, including the State of the Operator, the State of Design, the State of Registry, manufacturers, and equipment vendors.

Note: Manufacturers provide information for the operation of specific aircraft that emphasises the aircraft systems and procedures under conditions that may not fully match the requirements of operators. Operators shall ensure that such information meets their specific needs and those of the Authority.

5.2 Operators shall develop an information gathering, review, and distribution system to process information resulting from changes that originate within the operator, including:

5.2.1 Changes resulting from the installation of new equipment;

5.2.2 Changes in response to operating experience;

5.2.3 Changes in an operator's policies and procedures;

5.2.4 Changes in an operator's certificate; and

5.2.5 Changes for purposes of maintaining cross-fleet standardisation.

Note: Operators shall ensure that crew coordination philosophy, policies, and procedures are specific to their operation.

5.3 A flight safety documents system shall be reviewed:

5.3.1 On a regular basis at least once a year;

5.3.2 After major events (e.g., mergers, acquisitions, rapid growth, downsizing);

5.3.3 After technological changes (e.g., introduction of new equipment); and

5.3.4 After changes in safety regulations.

5.4 Operators shall develop methods for communicating new information. The specific methods shall be responsive to the degree of communication urgency.

Note: As frequent changes diminish the importance of new or modified procedures, it is desirable to minimise changes to the flight safety documents system.

5.5 New information shall be reviewed and validated, considering its effects on the entire flight safety documents system.

5.6 The method for communicating new information shall be complemented by a tracking system to ensure currency by operational personnel. The tracking system shall include a procedure to verify that operational personnel have the most recent updates.

IS 9.3.3.2 DRY LEASING OF FOREIGN-REGISTERED AIRCRAFT

(a) An AOC holder may dry lease an aircraft for the purpose of commercial air transportation from any AOC holder of a State that is signatory to the Chicago Convention, provided that the following

conditions are met:

(1) The aircraft carries an appropriate certificate of airworthiness issued by the State of Registry in accordance with ICAO Annex 8 and meets the registration and identification requirements of that State of Registry;

(2) The aircraft is of a type design that complies with all of the requirements that would be applicable to that aircraft were it registered in Curaçao, including the requirements that shall be met for issuance of a Curaçao standard certificate of airworthiness (including type design conformity; condition for safe operation; and the noise, fuel venting, and engine emission requirements);

(3) The aircraft is maintained according to an approved maintenance programme; and

(4) The aircraft is operated by Curaçao-licensed airmen, with additional licence authorisation by the State of Registry, employed by the AOC holder.

(b) Each AOC holder shall provide the Authority with a copy of the dry lease to be executed.

(c) Operational control of any dry leased aircraft rests with the AOC holder operating that aircraft.

(d) The Authority will list the dry leased aircraft on the lessor AOC holder's operations specifications.

(e) An AOC holder engaged in dry leasing aircraft shall make the dry lease agreement explicit concerning the maintenance programme and MEL to be followed during the term of the dry lease.

IS 9.3.3.3 AIRCRAFT INTERCHANGE

(a) Before operating under an interchange agreement, each AOC holder shall show that:

(1) The procedures for the interchange operation conform with safe operating practices;

(2) Required crew members and FOOs meet the approved training requirements for the aircraft and equipment to be used and are familiar with the communications and dispatch procedures to be used;

(3) Maintenance personnel meet training requirements for the aircraft and equipment and are familiar with the maintenance procedures to be used;

(4) Flight crew members and FOOs meet appropriate route and aerodrome qualifications;

(5) The aircraft to be operated are essentially similar to the aircraft of the AOC holder with whom the interchange is effected; and

(6) The arrangement of flight instruments and controls that are critical to safety are essentially similar to the aircraft of the AOC holder with whom the interchange is effected, unless the Authority determines that the AOC holder has adequate training programmes to ensure that any potentially hazardous dissimilarities are safely overcome by flight crew familiarisation.

(b) Each AOC holder conducting an interchange agreement shall include the pertinent provisions and procedures of the agreement in its manuals.

(c) The AOC holder shall amend its operations specifications to reflect an interchange agreement.

(d) The AOC holder shall comply with the applicable regulations of the State of Registry of an aircraft involved in an interchange agreement while it has operational control of that aircraft.

IS 9.3.3.4 WET LEASING

(a) Each AOC holder shall provide the Authority with a copy of the wet lease to be executed.

(b) The Authority will determine which party to a wet lease agreement has operational control, considering the extent and control of certain operational functions, such as:

(1) Initiating and terminating flights;

(2) Maintenance and servicing of aircraft;

(3) Scheduling crew members;

(4) Paying crew members; and

(5) Training crew members.

(c) Each AOC holder engaged in a wet leasing arrangement shall amend its operations specifications to contain the following information:

(1) The names of the parties to the agreement and the duration of the agreement;

(2) The make, model, and series of each aircraft involved in the agreement;

(3) The type of operation;

(4) The expiration date of the lease agreement;

(5) A statement specifying the party deemed to have operational control; and

(6) Any other item, condition, or limitation the Authority determines necessary.

IS 9.3.3.5 EMERGENCY EVACUATION DEMONSTRATION

(a) Each AOC holder shall conduct a partial emergency evacuation and ditching evacuation demonstration, observed by the Authority, that demonstrates the effectiveness of the AOC holder's crew member emergency training and evacuation procedures.

(b) Prior to conducting an emergency evacuation demonstration, the AOC holder shall apply for and obtain approval from the Authority.

(c) Cabin crew members used in the emergency evacuation demonstration shall:

(1) Be selected at random by the Authority;

(2) Have completed the AOC holder's approved training programme for the type and model of aircraft; and

(3) Have passed the drills and competence check on the emergency equipment and procedures.

(d) To conduct the partial emergency evacuation demonstration, the AOC holder's assigned cabin crew members shall, using the AOC holder's line operating procedures:

(1) Demonstrate the opening of 50 per cent of the required floor-level emergency exits and 50 per cent of the required non-floor-level emergency exits (the opening of which by a cabin crew member is defined as an emergency evacuation duty) and deployment of 50 per cent of the exit slides, selected by the Authority; and

(2) Prepare for use those exits and slides within 15 seconds.

(e) To conduct the ditching evacuation demonstration, the AOC holder's assigned cabin crew members shall:

(1) Demonstrate their knowledge and use of each item of required emergency equipment;

(2) Prepare the cabin for ditching within 6 minutes after the intention to ditch is announced;

(3) Remove each life raft from storage (one life raft, selected by the Authority, shall be launched and properly inflated or one slide life raft shall be properly inflated); and

(4) Enter the raft, which shall include all required emergency equipment, and shall completely set it up for extended occupancy.

IS 9.3.3.6 DEMONSTRATION FLIGHTS

(a) Each AOC holder shall conduct demonstration flights for each type of aircraft, including those aircraft materially altered in design, and for each type of operation the AOC holder intends to conduct.

(b) Each AOC holder shall conduct demonstration flights for at least the following:

(1) Initial aeroplane proving tests of newly manufactured aircraft or aircraft not yet demonstrated for use in a type of operation under this part:

(i) A minimum of 70 hours shall be flown, in addition to the aeroplane certification tests, including a representative number of flights into en route aerodromes.

(ii) The Authority may reduce the requirement of at least 70 hours of proving tests if the Authority determines that a satisfactory level of proficiency has been demonstrated to justify the reduction. This requirement applies to either new aircraft manufactured in Curaçao or to any foreign-manufactured aircraft that a Curaçao certificate holder has not previously operated.

(iii) Ten (10) hours shall be flown at night and may not be reduced.

(2) Type of aircraft and type of operations:

(i) For each type of aircraft, at least but not limited to 35 hours of demonstration flights acceptable to the Authority shall be flown for each type of operation the AOC holder intends to conduct, including a representative number of flights into en route aerodromes.

(3) Materially altered aircraft:

(i) For each type of aircraft that is materially altered in design, at least 30 hours of demonstration flights acceptable to the Authority shall be flown for each type of operation the AOC holder intends to conduct with that aircraft, including a representative number of flights into en route aerodromes.

(c) No person may carry passengers in an aircraft during demonstration flights, except for those persons necessary to make the demonstration flight and those designated by the Authority.

(d) For AOC holders of aircraft of less than 5,700 kg, the necessity and extent of demonstration shall be at the option of the Authority.

IS 9.4.1.2(G) OPERATIONS MANUAL – GENERAL

(a) The general part or section of the OM shall contain at least the following:

1.0 Administration and Control of the Operations Manual

1.1 Introduction.

1.1.1 A statement that the manual complies with all applicable rules and regulations and with the specific approvals, conditions, and limitations of the applicable air operator operations specifications.

1.1.2 A statement that the manual contains operational instructions that are to be complied with by the relevant personnel in the performance of their duties.

1.1.3 A list and brief description of the various OM parts and their contents, applicability, and use.

1.1.4 Explanations and definitions of terms and words used in the manual.

1.2 System of Amendment and Revision.

1.2.1 A description of who is responsible for the issuance and insertion of amendments and revisions.

1.2.2 A record of amendments and revisions with insertion dates and effective dates.

1.2.3 A statement that hand-written amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.

1.2.4 A description of the system for the annotation of pages and their effective dates.

1.2.5 A list of effective pages and their effective dates.

1.2.6 Annotation of changes (on text pages and, as practicable, on charts and diagrams).

1.2.7 A system for recording temporary revisions.

1.2.8 A description of the distribution system for the manuals, amendments, and revisions.

1.2.9 A statement of who is responsible for notifying the Authority of proposed changes and working with the Authority on changes requiring Authority approval.

2.0 Organisation and Responsibilities

2.1 Organisational Structure.

2.1.1 A description of the organisational structure, including the general company organisation and the operations department organisation.

2.1.2 The relationship between the operations department and the other departments of the organisation.

2.1.3 In particular, the subordination and reporting lines of all divisions, departments, etc., that pertain to the safety of flight operations.

2.1.4 Instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations.

2.2 Responsible Managers.

2.2.1 The name of each manager responsible for flight operations, the maintenance system, crew training, and ground operations.

2.2.2 A description of the function and responsibilities of each manager.

2.3 Authority, Duties, and Responsibilities of Operations Management Personnel.

2.3.1 A description of the authority, duties, and responsibilities of operations management personnel pertaining to the safety of flight operations and compliance with applicable regulations.

2.4 Authority, Duties, and Responsibilities of a PIC.

2.4.1 A description of the authority, duties, and responsibilities of the PIC.

2.5 Authority, Duties, and Responsibilities of Crew Members Other Than the PIC.

2.5.1 A description of the authority, duties, and responsibilities of all required crew members.

3.0 Operational Control and Supervision

3.1 Supervision of the Operation by the AOC Holder.

3.1.1 A description of the system for supervision of the operation by the AOC holder. This description shall show how the safety of flight operations and the qualifications of personnel involved in all such operations are supervised and monitored. In particular, the procedures related to the following items shall be described:

(a) Specifications for the operational flight plan;

(b) Competence of operations personnel; and

(c) Control, analysis, and storage of records; flight documents; additional information; and safety-related data.

3.2 System of Promulgation of Additional Operational Instructions and Information.

3.2.1 A description of any system for promulgating information that may be of an operational nature but is supplementary to the information in the OM, including the applicability of this information and the responsibilities for its promulgation.

3.3 Safety Management System.

3.3.1 A description of the main aspects of the SMS programme required by 1.6 of these regulations, including:

(a) Safety policy: general expectations;

(b) Safety risk management: general expectations;

(c) Safety assurance: general expectations; and

(d) Safety promotion: general expectations.

3.4 Operational Control.

3.4.1 A description of the objectives, procedures, and responsibilities necessary to exercise operational control with respect to flight safety.

4.0 Quality System

4.1 A description of the quality system adopted.

5.0 Flight Crew

5.1 Crew Composition.

5.1.1 An explanation of the method for determining crew composition, taking into account the following:

(a) Experience (total and type), recency, and qualification of the crew members;

(b) The designation of the PIC and, if required by the duration of the flight, the procedures for the relief of the PIC or other members of the flight crew; and

(c) The flight crew for each type of operation, including the designation of the succession of command.

5.2 PIC Designation.

5.2.1 The rules applicable to the designation of a PIC.

5.3 Crew Incapacitation.

5.3.1 Instructions on the succession of command in the event of flight crew incapacitation.

6.0 Flight Crew, Cabin Crew, Flight Operations Officer/Flight Dispatcher, and Other Operations Personnel Qualifications

6.1 Qualifications.

6.1.1 A description of the required licence, rating(s), qualification/competency (e.g., for routes and aerodromes), experience, training, checking, and recency of experience for operations personnel to conduct their duties. Consideration shall be given to the aircraft type, type of operation, and composition of the crew.

6.2 Flight Crew.

6.2.1 Operation on more than one type or variant.

6.3 Cabin Crew.

6.3.1 Operation on more than one type or variant.

6.4 Flight Operations Officer/Flight Dispatcher.

6.5 Other Operations Personnel.

7.0 Fatigue Management

7.1 Flight Time, Flight Duty Periods, Duty Period Limitations, and Rest Requirements.

7.1.1 Flight crew;

7.1.2 Cabin crew; and

7.1.3 FOO/flight dispatcher.

7.2 FRMS (if authorised by the Authority).

8.0 Crew Health

8.1 Crew Health Precautions.

8.1.1 The relevant regulations and guidance for crew members concerning health, including:

(a) Alcohol and other intoxicating liquor;

(b) Narcotics;

(c) Drugs;

(d) Sleeping tablets;

(e) Pharmaceutical preparations;

(f) Immunisations;

(g) Scuba diving;

(h) Blood donation;

(i) Meal precautions prior to and during flight;

(j) Sleep and rest; and

(k) Surgical operations.

9.0 Operating Procedures

9.1 Flight Preparation Instructions.

9.1.1 As applicable to the operation:

(a) Criteria for determining the usability of aerodromes.

(b) The method for determining minimum flight altitudes.

(c) The method for determining aerodrome operating minima.

(d) En route operating minima for VFR flights.

(1) A description of en route operating minima for VFR flights or VFR portions of a flight and, where single-engine aircraft are used, instructions for route selection with respect to the availability of surfaces that permit a safe forced landing.

(e) Presentation and application of aerodrome and en route operating minima.

(f) Interpretation of meteorological information.

(1) Explanatory material on the decoding of meteorological forecasts and meteorological reports relevant to the area of operations, including the interpretation of conditional expressions.

9.1.2 Determination of the quantities of fuel, oil, and water-methanol carried.

(a) This section shall include the specific instructions and methods by which the quantities of fuel, oil, and water-methanol to be carried are determined and monitored in flight. It shall also include instructions on the measurement and distribution of the fluid carried on board. Such instructions shall take account of all circumstances likely to be encountered on the flight, including the possibility of in-flight replanning, the failure of one or more of the aircraft's powerplants, and possible loss of pressurisation. The system for maintaining fuel and oil records shall also be described.

9.1.3 The general principles of mass and centre of gravity, including:

(a) The policy for using standard and/or actual masses;

(b) The method for determining the applicable passenger, baggage, and cargo mass;

(c) The applicable passenger and baggage masses for various types of operations and aircraft;

(d) General instruction and information necessary for verification of the various types of mass and balance documentation in use;

(e) Last-minute changes to procedures;

(f) Seating policy and procedures; and

(g) A list of documents, forms, and additional information to be carried during a flight.

9.2 Ground Handling Arrangements and Procedures.

9.2.1 Fuelling procedures.

(a) A description of fuelling procedures, including:

(1) Safety precautions during refuelling and defuelling, including when an auxiliary power unit is in operation or when a turbine engine is running and, if applicable, when the propeller brakes are on;

(2) Refuelling and defuelling when passengers are embarking, on board, or disembarking;

(3) Precautions to be taken to avoid mixing fuels; and

(4) A method to ensure the required amount of fuel is loaded.

9.2.2 Aircraft, passenger, and cargo handling procedures related to safety.

(a) A description of the handling procedures to be used when allocating seats, embarking and disembarking passengers, and loading and unloading the aircraft. Further procedures, aimed at achieving safety while the aircraft is on the ramp, shall also be given. Handling procedures shall include:

(1) Sick passengers and persons with reduced mobility;

(2) The permissible size and weight of hand baggage;

(3) The loading and securing of items in the aircraft;

(4) Special loads and classification of load compartments (e.g., dangerous goods, live animals);

(5) The positioning of ground equipment;

(6) The operation of aircraft doors;

(7) Safety on the ramp, including fire prevention, blast, and suction areas;

(8) Start-up and ramp departure and arrival procedures;

(9) Servicing of aircraft;

(10) Documents and forms; and

(11) Multiple occupancy of aircraft seats.

9.3 Procedures for the refusal of embarkation.

9.3.1 Procedures to ensure that persons who appear to be intoxicated or who demonstrate by manner or physical indications that they are under the influence of alcohol or drugs, except medical patients under proper care, are refused embarkation.

9.4 De-icing and anti-icing on the ground.

9.4.1 Instructions for the conduct and control of ground de-icing/anti-icing operations. A description of the de-icing and anti-icing policy and procedures for aircraft on the ground. These shall include descriptions of the types and effects of icing and other contaminants on aircraft while stationary, during ground movements, and during take-off. In addition, a description of the fluid types used shall be given, including:

(a) Proprietary or commercial names;

(b) Characteristics;

(c) Effects on aircraft performance; and

(d) Precautions during usage.

9.5 Helicopter refuelling procedures.

9.5.1 A description of procedures for helicopter refuelling, including:

(a) The doors on the refuelling side shall remain closed;

(b) The door on the non-refuelling side shall remain open;

(c) Firefighting facilities of the appropriate scale shall be immediately available in the case of a fire;

(d) The presence of fuel vapour, if detected, shall cease the refuelling process;

(e) The ground or deck area beneath the exits intended for emergency evacuation shall be kept clear;

(f) Seat belts shall be unfastened to facilitate rapid egress; and

(g) With rotors turning, only ongoing passengers shall remain on board.

9.6 Flight Procedures and Flight Navigation Equipment.

9.6.1 A description of flight procedures, including:

(a) SOPs for each phase of flight;

(b) Instructions on the use of normal checklists and the timing of their use;

(c) Departure contingency procedures;

(d) Instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude call-outs;

(e) Instructions on the use of auto and autothrottles in IMC;

(f) Instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved;

(g) Departure and approach briefings;

(h) Procedures for familiarisation with areas, routes, and aerodromes;

(i) Stabilised approach procedure;

(j) Limitation on high rates of descent near the surface;

(k) Conditions required to commence or to continue an instrument approach;

(l) Instructions for the conduct of precision and non-precision instrument approach procedures;

(m) The allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations;

(n) The circumstances in which a radio listening watch is to be maintained; and

(o) Instructions and training requirements for the use of HUD and EVS equipment, as applicable.

9.6.2 Navigation equipment.

(a) A list of the navigation equipment to be carried, including any requirements relating to operations where PBN is prescribed.

9.6.3 Navigation procedures.

(a) A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration shall be given to:

(1) Standard navigation procedures, including policy for carrying out independent cross-checks of keyboard entries where these affect the flight path to be followed by the aircraft;

(2) In-flight replanning;

(3) Procedures in the event of system degradation;

(4) Where relevant to the operations, long-range navigation procedures, the engine failure procedure for EDTO, and the nomination and utilisation of diversion aerodromes;

(5) Instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of the ground proximity warning system;

(6) Policy, instructions, procedures, and training requirements for the avoidance of collisions and the use of the ACAS;

(7) Information and instructions relating to the interception of civil aircraft, including:

(i) Procedures, as prescribed in IS 8.8.1.28 of these regulations, for PICs of intercepted aircraft; and

(ii) Visual signals for use by intercepting and intercepted aircraft, as contained in IS 8.8.1.28 of these regulations; and

(b) For aeroplanes intended to be operated above 15,000m (49.000ft):

(1) Information that will enable the pilot to determine the best course of action to take in the event of exposure to solar cosmic radiation; and

(2) Procedures in the event that a decision to descend is taken, covering:

(i) The necessity of giving the appropriate ATS unit prior warning of the situation and of obtaining a provisional descent clearance; and

(ii) The action to be taken in the event that communication with an ATS unit cannot be established or is interrupted.

9.6.4 Policy and procedures for in-flight fuel management.

9.6.5 Adverse and potentially hazardous atmospheric conditions.

9.6.6 Procedures for operating in, and/or avoiding, potentially hazardous atmospheric conditions, including:

(a) Thunderstorms;

(b) Icing conditions;

(c) Turbulence;

(d) Wind shear;

(e) Jet stream;

(f) Volcanic ash clouds;

(g) Heavy precipitation;

(h) Sand storms;

(i) Mountain waves; and

(j) Significant temperature inversions.

9.6.7 Operating restrictions.

(a) Cold weather operations;

(b) Take-off and landing in turbulence;

(c) Low-level wind shear operations;

(d) Crosswind operations (including tailwind components);

(e) High-temperature operations; and

(f) High-altitude operations.

9.6.8 Incapacitation of crew members.

(a) Procedures to be followed in the event of the incapacitation of crew members in flight. Examples of the types of incapacitation and the means for recognising them shall be included.

9.6.9 Cabin safety requirements.

(a) Procedures covering:

(1) Cabin preparation for flight; in-flight requirements; and preparation for landing, including procedures for securing cabin and galleys;

(2) Procedures to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aircraft;

(3) Procedures to be followed during passenger embarkation and disembarkation;

(4) Procedures for fuelling with passengers on board, embarking, or disembarking;

(5) Smoking on board; and

(6) The use of portable electronic equipment and cellular telephones.

9.6.10 Passenger briefing procedures.

(a) The contents, means, and timing of passenger briefing.

9.6.11 Procedures for use of cosmic or solar radiation detection equipment – aeroplanes.

(a) Procedures for the use of cosmic or solar radiation detection equipment and for recording its readings, including actions to be taken in the event that limit values specified in the OM are exceeded. In addition, the procedures, including ATC procedures, to be followed in the event that a decision to descend or reroute is taken.

9.7 All-Weather Operations.

9.8 Use of the Minimum Equipment List and Configuration Deviation List.

9.9 Non-Revenue Flights.

9.9.1 Procedures and limitations for:

(a) Training flights;

(b) Test flights;

(c) Delivery flights;

(d) Ferry flights;

(e) Demonstration flights; and

(f) Positioning flights, including the type of persons who may be carried on such flights.

9.10 Oxygen Requirements.

9.10.1 An explanation of the conditions under which oxygen shall be provided and used.

10.0 Dangerous Goods and Weapons

10.1 Transport of Dangerous Goods.

10.1.1 Information, instructions, and general guidance on the transport of dangerous goods, including:

(a) The AOC holder's policy on the transport of dangerous goods;

(b) Guidance on the requirements for acceptance, labelling, handling, stowage, and segregation of dangerous goods;

(c) Procedures and actions to be taken for responding to emergency situations involving dangerous goods;

(d) Duties of all personnel involved; and

(e) Instructions on the carriage by the AOC holder's employees.

10.2 Transport of Weapons.

10.2.1 The conditions under which weapons, munitions of war, and sporting weapons may be carried.

11.0 Security

11.1 Security Policies and Procedures.

11.1.1 A description of security policies and procedures for handling and reporting crime (e.g., unlawful interference, sabotage, bomb threats, and hijacking) on board.

11.2 Security Instructions and Guidance.

11.2.1 Security instructions and guidance of a non-confidential nature that shall include the authority and responsibilities of operations personnel.

11.3 Preventive Security Measures and Training.

11.3.1 A description of preventive security measures and training.

Note: Parts of the security instructions and guidance may be kept confidential.

12.0 Handling of Accidents and Incidents

12.1 Procedures for the Handling, Notifying, and Reporting of Accidents and Incidents.

12.1.1 This section shall include:

(a) Definitions of accidents and incidents and the relevant responsibilities of all persons involved;

(b) Descriptions of the company departments, authorities, or other institutions that shall be notified in case of an accident or incident, and by which means and in what sequence;

(c) Special notification requirements in the event of an accident or incident when dangerous goods are being carried;

(d) A description of the requirements to report accidents and incidents;

(e) The forms used for reporting accidents and incidents and the procedure for submitting such forms to the Authority;

(f) If the AOC holder develops additional safety-related reporting procedures for its own internal use, a description of the applicability and related forms to be used; and

(g) Procedures for PICs who have observed an accident or incident.

13.0 Rules of the Air

13.1 Rules of the air, including:

13.1.1 Territorial application of the rules of the air;

13.1.2 The circumstances during which a radio listening watch shall be maintained;

13.1.3 ATC clearances, adherence to flight plan, and position reports;

13.1.4 The ground-air visual codes for use by survivors, description and use of signal aids; and

13.1.5 Distress and urgency signals.

IS 9.4.1.3 TRAINING MANUAL

(a) Each AOC holder and AOC applicant, as part of its OM, shall submit and maintain training programmes based on the following outline:

1.0 Training Syllabi and Checking Programmes

1.1 General Requirements.

1.1.1 Training syllabi and checking programmes for all operations personnel assigned to operational duties in connection with the preparation and/or conduct of a flight shall be

developed to meet the respective requirements of the Authority. An AOC holder may not use any person in, nor may any person serve in, a required crew member capacity or operational capacity unless that person meets the training and currency requirements established by the Authority for that respective position.

1.2 Flight Crew.

1.2.1 The training syllabi and checking programmes for flight crew members shall include:

(a) A written training programme acceptable to the Authority that provides for basic indoctrination, initial, transition, difference, and recurrent training, as appropriate, for flight crew members for each type of aircraft flown by that crew member; this written training programme shall include both normal and emergency procedures training applicable for each type of aircraft flown by the crew member;

(b) Adequate ground and flight training facilities and properly qualified instructors required to meet training objectives and needs;

(c) A current list of approved training materials, equipment, training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the AOC holder;

(d) An adequate number of ground and flight check personnel to ensure adequate training and checking of flight crew members; and

(e) A record system acceptable to the Authority to show compliance with appropriate training and currency requirements.

1.3 Cabin Crew.

1.3.1 The training syllabi and checking programmes for cabin crew members shall include:

(a) Basic initial ground training covering duties and responsibilities;

(b) Appropriate Authority rules and regulations;

(c) Appropriate portions of the AOC holder's OM;

(d) Appropriate emergency training, as required by the Authority and the AOC holder's OM;

(e) Appropriate flight training;

(f) Appropriate recurrent, transition, or difference training, as required, to maintain currency in any type and variance of aircraft the crew member may be required to work in;

(g) A current list of approved training materials, equipment, training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the AOC holder;

(h) An adequate number of ground check personnel and flight check personnel to ensure adequate training and checking of crew members; and

(i) A record system acceptable to the Authority to show compliance with all appropriate training and currency requirements.

1.4 All Crew Members.

1.4.1 A written training programme shall be developed for all crew members in the emergency procedures appropriate to each make and model of aircraft flown in or by the crew member. Areas shall include:

(a) Individual instruction in the use of on-board emergency equipment such as fire extinguishers, emergency breathing equipment, first aid equipment, emergency exits and evacuation slides, and the aircraft's oxygen system, including the use of portable emergency oxygen bottles. Flight crew members shall also practice using the emergency equipment designed to protect them in case of a flight deck fire or smoke;

(b) Instruction in potential emergencies such as rapid decompression, ditching, firefighting, aircraft evacuation, medical emergencies, hijacking, and disruptive passengers; and

(c) Scheduled recurrent training to meet Authority requirements.

1.5 All Operations Personnel.

1.5.1 The training syllabi and checking programmes for all operations personnel shall include:

(a) Training in the safe transportation and recognition of all dangerous goods permitted by the Authority to be shipped by air; training shall include the proper packaging, marking, labelling, and documentation of dangerous articles and magnetised materials;

(b) All appropriate security training required by the Authority; and

(c) A method of providing any required notification of an accident or incident involving dangerous goods.

1.6 Operations Personnel Other Than Crew Members.

1.6.1 For operations personnel other than crew members (e.g., FOO, handling personnel), a written training programme shall be developed that pertains to their respective duties. The training programme shall provide for initial, recurrent, differences, specialised, and any other training required by the Authority.

2.0 Procedures for Training and Checking

2.1 Proficiency Checking Procedures.

2.1.1 Procedures to be applied in the event that personnel do not achieve or maintain the required standards.

2.2 Procedures Involving the Simulation of Abnormal or Emergency Situations.

2.2.1 Procedures to ensure that abnormal or emergency situations requiring the application of part or all of the abnormal or emergency procedures, and simulation of IMC by artificial means, are not simulated during commercial air transportation flights.

3.0 Document Retention

3.1 Documentation to Be Stored and Storage Periods.

3.1.1 An AOC holder shall retain all documentation required by the Authority, or the Authority of another State in which the AOC holder is operating, for the time specified by the respective Authority or for the time period needed to show compliance with appropriate regulations or this OM, whichever is longer.

IS 9.4.1.4 AIRCRAFT OPERATING MANUAL

(a) Each AOC applicant and AOC holder shall submit and maintain an AOM as part of its OM, containing at least the following:

1.0 General Information and Units of Measurement

1.1 General information (e.g., aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and conversion tables.

2.0 Limitations

2.1 Certification and Operational Limitations.

2.1.1 A description of the applicable operational limitations, including:

(a) Certification status;

(b) Passenger seating configuration for each aircraft type, including a pictorial presentation;

(c) Types of operation that are approved (e.g., AMO/IMC/VFR, CAT II/III, flights in known icing conditions, etc.);

(d) Crew composition;

(e) Operation within mass and centre of gravity limitations;

(f) Speed limitations;

(g) Flight envelopes;

(h) Wind limits, including operations on contaminated runways;

(i) Performance limitations for applicable configurations;

(j) Runway slope;

(k) Limitations on wet or contaminated runways;

(l) Airframe contamination; and

(m) Post landing.

3.0 Procedures

3.1 Normal Procedures.

3.1.1 The normal procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists, and a statement covering the necessary coordination procedures between flight and cabin crew. The following normal procedures and duties shall be included:

(a) Pre-flight;

(b) Pre-departure and loading;

(c) Altimeter setting and checking;

(d) Taxi, take-off, and climb;

(e) Noise abatement;

(f) Cruise and descent;

(g) Approach, landing preparation, and briefing;

(h) VFR approach;

(i) Instrument approach;

(j) Visual approach and circling;

(k) Missed approach;

(l) Normal landing;

(m) Post landing; and

(n) Operation on wet and contaminated runways.

3.2 Flight Deck Procedures.

(a) Obtain a flight release;

(b) Initial flight deck preparation;

(c) SOPs;

(d) Flight deck discipline;

(e) Standard call-outs;

(f) Communications;

(g) Flight safety;

(h) Push-back and towing procedures;

(i) Taxi guidelines and ramp signals;

(j) Take-off and climbout procedures;

(k) Choice of runway;

(l) Take-off in limited visibility;

(m) Take-off in adverse weather;

(n) Use and limitations of weather radar;

(o) Use of landing lights;

(p) Monitoring of flight instruments;

(q) Power settings for take-off;

(r) Malfunctions during take-off;

(s) Rejected take-off decision;

(t) Climb, best angle, best rate;

(u) Sterile cockpit procedures;

(v) En route and holding procedures;

(w) Cruise control;

(x) Navigation logbook;

(y) Descent, approach, and landing procedures;

(z) Reporting of maintenance problems; and

(aa) How to obtain maintenance and service en route.

3.3 Abnormal and Emergency Procedures.

3.3.1 A listing of abnormal and emergency procedures assigned to crew members with appropriate checklists that include a system for use of the checklists and a statement covering the necessary coordination procedures between flight and cabin crew. The following abnormal and emergency procedures and duties shall be included:

(a) Crew incapacitation;

(b) Fire and smoke drills;

(c) Unpressurised and partially pressurised flight, as applicable;

(d) Exceeding of structural limits, such as overweight landing;

(e) Exceeding of cosmic radiation limits, as applicable;

(f) Lightning strikes;

(g) Distress communications and alerting of ATC to emergencies;

(h) Engine failure;

(i) System failures;

(j) Guidance for diversion in case of serious technical failure;

(k) Ground proximity warning;

(l) ACAS;

(m) Wind shear;

(n) Emergency landing/ditching;

(o) Aircraft evacuation;

(p) Fuel jettisoning precautions (as applicable) and overweight landing;

(q) General considerations and policy;

(r) Emergency procedures;

(s) Emergency descent;

(t) Low fuel;

(u) Dangerous goods incident or accident;

(v) Interception procedures;

(w) Emergency signal for cabin crew members;

(x) Communication procedures; and

(y) Radio listening watch.

4.0 Performance Data, Supplementary Performance Data, and Other Acceptable Performance Data

4.1 General.

4.1.1 Performance data shall be provided in a form in which it can be used without difficulty.

4.2 Performance Data.

4.2.1 Performance material that provides the necessary data to allow the flight crew to comply with the approved AFM performance requirements shall be included to allow the determination of:

(a) Take-off climb limits (mass, altitude, temperature);

(b) Take-off field length limits (dry, wet, contaminated);

(c) Net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;

(d) Gradient losses for banked climbouts;

(e) En route climb limits;

(f) Approach climb limits;

(g) Landing climb limits;

(h) Landing field length limits (dry, wet, contaminated), including the effects of an in-flight failure of a system or device, if it affects the landing distance;

(i) Brake energy limits; and

(j) Speeds applicable for the various flight stages (also considering wet or contaminated runways).

4.3 Supplementary Performance Data.

4.3.1 Supplementary data covering:

(a) Flights in icing conditions;

(b) The maximum crosswind and tailwind components for each aircraft type operated and the reductions to be applied to these values having regard to gust, low visibility, runway surface conditions, crew experience, use of autopilot, abnormal or emergency circumstances, or any other relevant operational factors; and

(c) Any certified performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative, shall be included.

4.4 Other Acceptable Performance Data.

4.4.1 If performance data, as required for the appropriate performance class, is not available in the approved AFM, then other data acceptable to the Authority shall be included. Alternatively, the OM may contain cross references to the approved data contained in the AFM, where such data is not likely to be used often or in an emergency.

4.5 Additional Performance Data.

4.5.1 Additional performance data, where applicable, including:

(a) All engines operating climb gradients;

(b) Drift-down data;

(c) The effect of de-icing/anti-icing fluids;

(d) Flight with landing gear down;

(e) For aircraft with three or more engines, one-engine-inoperative ferry flights; and

(f) Flights conducted under the provisions of a CDL.

5.0 Flight Planning

5.1 Flight Planning Data.

5.1.1 Specific data and instructions necessary for pre-flight and in-flight planning, including factors such as speed schedules and power settings. Where applicable, procedures for engine(s) out operations, EDTO, and flights to isolated aerodromes shall be included for the flight plan and the operational flight plan.

5.2 Fuel and Oil Calculations.

5.2.1 The method for calculating fuel needed for the various stages of flight.

6.0 Mass and Balance

6.1 Calculating Mass and Balance.

6.1.1 Instructions and data for calculating mass and balance, including:

(a) The calculation system (e.g., index system);

(b) Information and instructions for the completion of mass and balance documentation, including manual and computer-generated types;

(c) Limiting mass and centre of gravity of the various versions; and

(d) Dry operating mass and corresponding centre of gravity or index.

7.0 Loading

7.1 Loading Procedures.

7.1.1 Instructions for loading and securing a load in the aircraft, including:

(a) Use of aircraft systems and associated controls.

7.2 Loading Dangerous Goods.

7.2.1 A method for notifying the PIC when dangerous goods are loaded in the aircraft.

8.0 Survival and Emergency Equipment Including Oxygen

8.1 List of Survival Equipment to Be Carried.

8.1.1 A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off.

8.1.2 Instructions regarding the location, accessibility, and use of survival and emergency equipment and its associated checklist(s).

8.2 Ground-Air Visual Signal.

8.2.1 Instructions illustrating the ground-air visual signal code for use by survivors.

8.3 Oxygen Usage.

8.3.1 The procedure for determining the amount of oxygen required and the quantity that is available, taking into consideration the flight profile, number of occupants, and possible cabin decompression.

8.3.2 The information provided shall be in a form in which it can be used without difficulty.

8.4 Emergency Equipment Usage.

8.4.1 A description of the proper use of the following emergency equipment, if applicable:

(a) Life jackets;

(b) Life rafts;

(c) Medical kits/first aid kits;

(d) Survival kits;

(e) Emergency locator transmitter;

(f) Visual signalling devices;

(g) Evacuation slides; and

(h) Emergency lighting.

9.0 Emergency Evacuation Procedures

9.1 Instructions for Emergency Evacuation.

9.1.1 Instructions for preparing for emergency evacuation, including crew coordination and emergency station assignment.

9.2 Emergency Evacuation Procedures.

9.2.1 A description of the duties of all members of the crew for the rapid evacuation of an aircraft and the handling of passengers in the event of a forced landing, ditching, or other emergency.

10.0 Aircraft Systems

10.1 A description of the aircraft systems, related controls and indications, and operating instructions.

11.0 Minimum Equipment List and Configuration Deviation List

11.1 The MEL and CDL for the aircraft types operated and the specific operations authorised, including any requirements relating to operations where PBN is prescribed.

12.0 Route and Aerodrome Instructions and Information (optional for this manual)

13.0 Instructions and Information

13.1 Communications, navigation, and aerodromes.

13.1.1 Instructions and information relating to communications, navigation, and aerodromes, including:

(a) Minimum flight level/altitude for each route to be flown;

(b) Operating minima for departure, destination, and alternate aerodromes;

(c) Communication facilities and navigation aids;

(d) Runway data and aerodrome facilities;

(e) Approach, missed approach, and departure procedures, including noise abatement procedures;

(f) Communications-failure procedures;

(g) Search and rescue facilities in the area over which the aircraft is to be flown;

(h) A description of the aeronautical charts that shall be carried on board in relation to the type of flight and the route to be flown, including the method for checking their validity;

(i) Availability of aeronautical information and meteorological services;

(j) En route COM/NAV procedures, including holding; and

(k) Aerodrome categorisation for flight crew competence qualification.

IS 9.4.1.18 PASSENGER BRIEFING CARDS

(a) Each AOC holder shall, at each exit seat, provide passenger briefing cards that include the following information in the primary language in which emergency commands are given by the crew:

(1) Functions required of passengers in the event of an emergency in which a crew member is not available to assist, including how to:

(i) Locate the emergency exit;

(ii) Recognise the emergency exit opening mechanism;

(iii) Comprehend the instructions for operating the emergency exit;

(iv) Operate the emergency exit;

(v) Assess whether opening the emergency exit will increase the hazards to which passengers may be exposed;

(vi) Follow oral directions and hand signals given by a crew member;

(vii) Stow or secure the emergency exit door so it will not impede the use of the exit;

(viii) Assess the condition of an escape slide, activate the slide, and stabilise the slide after deployment to assist others in getting off the slide;

(ix) Pass expeditiously through the emergency exit; and

(x) Assess, select, and follow a safe path away from the emergency exit; and

(2) A request that passengers identify themselves to allow being reseated if they:

(i) Are less than 15 years of age or lack the capacity to perform one or more of the applicable functions listed in paragraph (a)(1) of this IS without the assistance of an adult companion, parent, or other relative;

(ii) Cannot perform the emergency functions stated in the information card;

(iii) Have an indiscernible condition that will prevent them from performing the emergency functions;

(iv) May suffer bodily harm as a result of performing one or more of the emergency functions;

(v) Do not wish to perform the emergency functions; or

(vi) Lack the ability to read, speak, or understand the language or the graphic form in which instructions are provided by the AOC holder.

IS 9.4.1.19 AERONAUTICAL DATA CONTROL SYSTEM

(a) Each AOC holder shall provide aeronautical data about each aerodrome used by the AOC holder, to include the following:

(1) Aerodromes and heliports:

(i) Facilities;

(ii) Public protection;

(iii) Navigation and communication aids;

(iv) Construction affecting take-off, landing, or ground operations; and

(v) Air traffic facilities.

(2) Runways, clearways, and stopways:

(i) Dimensions;

(ii) Surface;

(iii) Marking and lighting systems; and

(iv) Elevation and gradient.

(3) Displaced thresholds:

(i) Location;

(ii) Dimensions; and

(iii) Take-off, landing, or both.

(4) Obstacles:

(i) Those affecting take-off and landing performance computations; and

(ii) Controlling obstacles.

(5) Instrument flight procedures:

(i) Departure procedure;

(ii) Approach procedure; and

(iii) Missed approach procedure.

(6) Special information:

(i) RVR measurement equipment; and

(ii) Prevailing winds under low-visibility conditions.

IS 9.4.1.20 ROUTE GUIDE – AREAS, ROUTES, AERODROMES, AND HELIPORTS

(a) Each AOC applicant and AOC holder shall submit and maintain as part of its OM a route guide containing information on areas, routes, aerodromes, and heliports. The route guide shall contain at least the information in IS 9.4.1.20(c).

(b) The route guide shall ensure that the flight crew have, for each flight, information relating to communication facilities, navigation aids, aerodromes, heliports, instrument approaches, instrument arrivals, and instrument departures, as applicable for the operation, and such other information as the operator may deem necessary in the proper conduct of flight operations.

(c) Each route guide shall contain at least the following information:

(1) The minimum flight altitudes for each aircraft to be flown;

(2) Aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes;

(3) The increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities;

(4) Heliport operating minima for each of the heliports that are likely to be used as heliports of intended landing or as alternate heliports;

(5) The increase of heliport operating minima in case of degradation of approach or heliport facilities; and

(6) The necessary information for compliance with all flight profiles required by regulations, including the determination of:

(i) Take-off runway length requirements for dry, wet, and contaminated conditions, including those dictated by systems failures that affect the take-off distance;

(ii) Take-off climb limitations;

(iii) En route climb limitations;

(iv) Approach climb limitations and landing climb limitations;

(v) Landing runway length requirements for dry, wet, and contaminated conditions, including systems failures that affect the landing distance; and

(vi) Supplementary information, such as tire speed limitations.

IS 9.4.1.21 WEATHER REPORTING SOURCES

(a) The Authority approves the following sources of weather reports and considers the reports from these sources satisfactory for flight planning or for controlling flight movement:

(1) Curaçao Meteorological Office.;

(2) Curaçao-operated automated surface observation stations;

Note: Some automated systems cannot report all required items for a complete surface aviation weather report.

(3) Curaçao-operated supplemental aviation weather reporting stations;

(4) Observations taken by aerodrome traffic control towers;

(5) Curaçao-contracted weather observatories;

(6) Any active meteorological office operated by a foreign state that subscribes to the ICAO Standards and practices;

Note: These meteorological offices are normally listed in the meteorological tables located in ICAO Regional Air Navigation Plans.

(7) Any military weather-reporting sources approved by the Authority;

Note: Use of military sources is limited to control of those flight operations that use military aerodromes as departure, destination, alternate, or diversionary aerodromes.

(8) Near-real-time reports such as pilot reports, radar reports, radar summary charts, and satellite imagery reports made by commercial weather sources or other sources specifically approved by the Authority; and

(9) A weather reporting system operated and maintained by the AOC holder and approved by the Authority.

IS 9.4.1.22 DE-ICING AND ANTI-ICING PROGRAMME

(a) The AOC holder's ground de-icing and anti-icing programme shall include a detailed description of:

(1) How the AOC holder determines that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and that ground de-icing and anti-icing operational procedures shall be in effect;

(2) Who is responsible for deciding that ground de-icing and anti-icing operational procedures shall be in effect;

(3) The procedures for implementing ground de-icing and anti-icing operational procedures; and

(4) The specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground de-icing and anti-icing operational procedures are in effect.

(b) Initial and annual recurrent ground training for flight crew and all other affected personnel (e.g., FOOs/flight dispatchers, ground personnel, contract personnel) shall cover the specific requirements of the approved de-icing and anti-icing programme and each person's responsibilities and duties under the approved programme, including:

(1) The use of holdover times;

(2) Aircraft de-icing/anti-icing procedures, including inspection and check procedures and responsibilities;

(3) Communication procedures;

(4) Aircraft surface contamination (e.g., adherence of frost, ice, or snow) and critical area identification and how contamination adversely affects aircraft performance and flight characteristics;

(5) Types and characteristics of de-icing/anti-icing fluids;

(6) Cold weather pre-flight inspection procedures; and

(7) Techniques for recognising contamination on the aircraft.

(c) The AOC holder's de-icing and anti-icing programme shall include procedures for flight crew members to increase or decrease the determined holdover time in changing conditions. The holdover time shall be supported by data acceptable to the Authority. If the maximum holdover time is exceeded, take-off is prohibited unless at least one of the following conditions exists:

(1) A pre-take-off contamination check is conducted outside the aircraft (within 5 minutes prior to beginning take-off) to determine that the wings, control surfaces, and other critical surfaces, as defined in the AOC holder's de-icing and anti-icing programme, are free of frost, ice, or snow;

(2) It is otherwise determined by an alternate procedure, approved by the Authority and in accordance with the AOC holder's approved de-icing and anti-icing programme, that the wings, control surfaces, and other critical surfaces are free of frost, ice, or snow; or

(3) The wings, control surfaces, and other critical surfaces, as defined in the AOC holder's de-icing and anti-icing programme, are de-iced again and a new holdover time is determined.

IS 9.4.1.24 FATIGUE RISK MANAGEMENT SYSTEM

(a) An FRMS shall contain, at a minimum:

(1) FRMS policy and documentation;

(2) Fatigue risk management processes;

(3) FRMS safety assurance process; and

(4) FRMS promotion processes.

(b) The operator shall define its FRMS policy, with all elements of the FRMS clearly identified.

(c) The FRMS policy shall require that the scope of FRMS operations be clearly defined in the OM.

(d) The FRMS policy shall:

(1) Reflect the shared responsibility of management, flight and cabin crew members, and all other involved personnel;

(2) Clearly state the safety objectives of the FRMS;

(3) Be signed by the executive manager of the organisation;

(4) Be communicated, with visible endorsement, to all the relevant areas and levels of the organisation;

(5) Declare management commitment to effective safety reporting;

(6) Declare management commitment to the provision of adequate resources for the FRMS;

(7) Declare management commitment to continuous improvement of the FRMS;

(8) Require that clear lines of accountability for management, flight and cabin crew members, and all other involved personnel are identified; and

(9) Require periodic reviews to ensure it remains relevant and appropriate.

Note: Effective safety reporting is described in ICAO Doc 9859, Safety Management Manual (SMM).

(e) FRMS Documentation.

(1) An operator shall develop and keep current FRMS documentation that describes and records:

(i) FRMS policy and objectives;

(ii) FRMS processes and procedures;

(iii) Accountabilities, responsibilities, and authorities for these processes and procedures;

(iv) Mechanisms for ongoing involvement of management, flight and cabin crew members, and all other involved personnel;

(v) FRMS training programmes, training requirements, and attendance records;

(vi) Scheduled and actual flight times, duty periods, and rest periods, with significant deviations and reasons for deviations noted; and

Note: Significant deviations are described in ICAO Doc 9966, Manual for the Oversight of Fatigue Management Approaches.

(vii) FRMS outputs, including findings from collected data, recommendations, and actions taken.

(f) Fatigue Risk Management Processes – Identification of Hazards.

(1) An operator shall develop and maintain three fundamental and documented processes for fatigue hazard identification:

(i) Predictive. The predictive process shall identify fatigue hazards by examining crew scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include, but are not limited to:

(1) Operator or industry operational experience and data collected on similar types of operations;

(2) Evidence-based scheduling practices; and

(3) Biomathematical models.

(ii) Proactive. The proactive process shall identify fatigue hazards within current flight operations. Methods of examination may include, but are not limited to:

(1) Self-reporting of fatigue risks;

(2) Crew fatigue surveys;

(3) Relevant flight and cabin crew performance data;

(4) Available safety databases and scientific studies; and

(5) Analysis of planned versus actual time worked.

(iii) Reactive. The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimised. At a minimum, the process may be triggered by any of the following:

(1) Fatigue reports;

(2) Confidential reports;

(3) Audit reports;

(4) Incidents; and

(5) Flight data analysis events.

(g) Risk Assessment.

(1) An operator shall develop and implement risk assessment procedures that determine the probability and potential severity of fatigue-related events and identify when the associated risks require mitigation. The risk assessment procedures shall review identified hazards and link them to:

(i) Operational processes;

(ii) Their probability;

(iii) Possible consequences; and

(iv) The effectiveness of existing safety barriers and controls.

(h) Risk Mitigation.

(1) An operator shall develop and implement risk mitigation procedures that:

(i) Select the appropriate mitigation strategies;

(ii) Implement the mitigation strategies; and

(iii) Monitor the implementation and effectiveness of the strategies.

(i) FRMS Safety Assurance Process.

(1) The operator shall develop and maintain an FRMS safety assurance process to:

(i) Provide for continuous FRMS performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include:

(1) Hazard reporting and investigations;

(2) Audits and surveys; and

(3) Reviews and fatigue studies.

(ii) Provide a formal process for the management of change, which shall include:

(1) Identification of changes in the operational environment that may affect FRMS;

(2) Identification of changes within the organisation that may affect FRMS; and

(3) Consideration of available tools that could be used to maintain or improve FRMS performance prior to implementing changes.

(iii) Provide for the continuous improvement of the FRMS, which shall include:

(1) The elimination and/or modification of risk controls that have had unintended consequences or that are no longer needed due to changes in the operational or organisational environment;

(2) Routine evaluations of facilities, equipment, documentation, and procedures; and

(3) The determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

(j) FRMS Promotion Process.

(1) An operator shall develop an FRMS promotion process that supports the ongoing development of the FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the operator as part of its FRMS:

(i) Training programmes to ensure competency commensurate with the roles and responsibilities of management, flight and cabin crew members, and all other involved personnel under the planned FRMS; and

(ii) An effective FRMS communications plan that:

(1) Explains FRMS policies, procedures, and responsibilities to all relevant stakeholders; and

(2) Describes communication channels used to gather and disseminate FRMS-related information.

IS 9.5.1.4 MAINTENANCE CONTROL MANUAL

(a) Each AOC applicant and AOC holder shall submit and maintain an MCM containing at least the following:

Note: The manual may be arranged in any subject order and the subjects may be combined so long as all applicable subjects are covered in the manual.

1.0 Administration and Control of the Maintenance Control Manual

1.1 Introduction.

1.1.1 A statement that the manual complies with all applicable Authority regulations and requirements and with the terms and conditions of the applicable AOC;

1.1.2 A statement that the manual contains maintenance and operational instructions with which the relevant personnel are to comply in the performance of their duties;

1.1.3 A list and brief description of the various MCM parts and their contents, applicability, and use; and

1.1.4 Explanations and definitions of terms and words used in the manual.

1.2 System of Amendment and Revision.

1.2.1 A description of who is responsible for the issuance and insertion of amendments and revisions;

1.2.2 A required record of amendments and revisions with insertion dates and effective dates;

1.2.3 A statement that hand-written amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety;

1.2.4 A description of the system for the annotation of pages and their effective dates;

1.2.5 A list of effective pages and their effective dates;

1.2.6 Annotation of changes (on text pages and, as practicable, on charts and diagrams);

1.2.7 A system for recording temporary revisions;

1.2.8 A description of the distribution system for the manuals, amendments, and revisions; and

1.2.9 A statement of who is responsible for notifying the Authority of proposed changes and for working with the Authority on changes requiring Authority approval.

2.0 General Organisation

2.1 Corporate Commitment by the AOC Holder.

2.2 General Information.

2.2.1 A brief description of the organisation;

2.2.2 A description of the organisation's relationships with other organisations;

2.2.3 Fleet composition;

2.2.4 The type of operation; and

2.2.5 Line station locations.

2.3 Maintenance Management Personnel.

2.3.1 Executive manager;

2.3.2 Nominated post holder;

2.3.3 Maintenance coordination;

2.3.4 Duties and responsibilities;

2.3.5 Organisation chart(s); and

2.3.6 Manpower resources and training policy.

2.4 Notification Procedure to the Authority Regarding Changes to the Maintenance Arrangements, Locations, Personnel, Activities, or Approval.

3.0 Maintenance Procedures

3.1 Aircraft Logbook Utilisation and MEL Application.

3.2 Aircraft Maintenance Programme Development and Amendment.

3.3 Time and Continuing Airworthiness Records, Responsibilities, and Retention.

3.4 Accomplishment and Control of Mandatory Continuing Airworthiness Information (Airworthiness Directives).

3.5 Analysis of the Effectiveness of the Maintenance Programme.

3.6 Non-Mandatory Modification Embodiment Policy.

3.7 Major Modification Standards.

3.8 Defect Reports.

3.8.1 Analysis;

3.8.2 Liaison with manufacturers and Authorities; and

3.8.3 Deferred defect policy.

3.9 Engineering Activity.

3.10 Reliability Programmes.

3.10.1 Airframe;

3.10.2 Propulsion; and

3.10.3 Components.

3.11 Pre-Flight Inspection.

3.11.1 Preparation of aircraft for flight;

3.11.2 Subcontracted ground handling functions;

3.11.3 Security of cargo and baggage loading;

3.11.4 Control of refuelling, quantity/quality; and

3.11.5 Control of snow, ice, dust, and sand contamination to an approved aviation standard.

3.12 Aircraft Weighing.

3.13 Flight Test Procedures.

3.14 Sample of Documents, Tags, and Forms Used.

3.15 Appropriate Portions of the AOC Holder's Operations Manual.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 10 – COMMERCIAL AIR TRANSPORT BY FOREIGN AIR OPERATORS TO/ FROM CURAÇAO

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INTRODUCTION

Part 10 of the Curaçao Civil Aviation Regulations (CCAR) sets forth the terms and conditions under which Curaçao will carry out its aviation safety responsibility to its own citizens and ensure the safe operation, airworthiness, and air crew qualifications of foreign air operators it allows to operate into, from, or within Curaçao territory, as mandated by the International Civil Aviation Organization (ICAO) Convention on International Civil Aviation (Chicago Convention) and the laws and regulations of Curaçao.

Each Contracting State is empowered under the Chicago Convention to set the terms for entry into and flight operations into, from, or within that Contracting State. Ordinarily, international commercial air transport flights are allowed into a Contracting State under the terms and authority of international agreements that grant the economic permission to operate into, from, or within that Contracting State and require the safe operation of such aircraft. As a result, the Civil Aviation Authorities (CAAs) of the State of Registry and the State of the Operator are responsible under the Chicago Convention for the safe operation of each aircraft that is allowed to conduct commercial air transport into, from, or within Curaçao.[1]

The requirements placed upon foreign air operators in this part are directly related to each Contracting State's responsibility to assure that its air operators engaged in international commercial air transport adhere to the Standards and Recommended Practices (SARPs) set forth in the applicable ICAO Annexes, the special conditions existing within Curaçao that Curaçao notes to ICAO as differences from the SARPs, and the special conditions within Curaçao that it reports in aeronautical information manuals and publications.

[1] Most international commercial air operators in a Contracting State have a single Authority that issues air operator certificates and is responsible for the validity of crew member licenses and the airworthiness of aircraft registered in that State. However, it is best to consider the State of Registry and the State of the Operator as separate entities until the actual situation respecting leases or arrangements is fully determined.

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PART 10 – COMMERCIAL AIR TRANSPORT BY FOREIGN AIR OPERATORS TO/FROM CURAÇAO

10.1 GENERAL

10.1.1.1 APPLICABILITY

This regulation prescribes requirements applicable to the operation of any civil aircraft that is:

(1) Used for commercial air transportation operations by any air operator whose AOC is issued;

(2) Used for charter operations or private flights; and

(3) Controlled by a Civil Aviation Authority (CAA) other than the Curaçao Civil Aviation Authority, CCAA.

This part does not apply to aircraft when used by military, customs, Coast Guard and police services or similar, which are not used for compensation or hire.

Where "the Authority" is used in this Part 10, reference is made to the CCAA.

10.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

10.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **ACAS –** Airborne Collision Avoidance System

(2) **AFM –** Aircraft Flight Manual

(3) **AMM –** Aircraft Maintenance Manual

(4) **AMO –** Approved Maintenance Organization

(5) **AMT –** Aircraft Maintenance Technician

(6) **AOC –** Air Operator Certificate

(7) **ASA –** Air Services Agreement

(8) **ATC –** Air Traffic Control

(9) **C2 –** Command and Control

(10) **C2 Link –** Command and Control Link

(11) **CCAA** – Curaçao Civil Aviation Authority

(12) **CCAR** – Curaçao Civil Aviation Regulations

(13) **CP –** Co-Pilot/First Officer

(14) **CVR –** Cockpit Voice Recorder

(15) **EDTO –** Extended Diversion Time Operations

(16) **ELT –** Emergency Locator Transmitter

(17) **FDR –** Flight Data Recorder

(18) **GPWS –** Ground Proximity Warning System

(19) **ICAO –** International Civil Aviation Organization

(20) **IFR –** Instrument Flight Rules

(21) **IMC –** Instrument Meteorological Conditions

(22) **IS –** Implementing Standards

(23) **iSTARS –** Integrated Safety Trend Analysis and Reporting System

(24) **MEL –** Minimum Equipment List

(25) **MMEL –** Master Minimum Equipment List

(26) **MOU –** Memorandum of understanding

(27) **NOTAM –** Notice to Airmen

(28) **NOTOC –** Notice to Captain

(29) **OPS –** Operations

(30) **PIC –** Pilot-In-Command

(31) **RFM –** Rotorcraft Flight Manual

(32) **RPA –** Remotely Piloted Aircraft

(33) **RPAS –** Remotely Piloted Aircraft System(s)

(34) **RVSM –** Reduced Vertical Separation Minimum

(35) **SNOWTAM –** Snow Notice to Airmen

(36) **USOAP –** Universal Safety Oversight Audit Programme

(37) **VFR –** Visual Flight Rules

(38) **VLOS –** Visual Line-of-Sight

(39) **VMC –** Visual Meteorological Conditions

10.1.1.4 COMPLIANCE

(a) A foreign air operator shall not operate an aircraft in commercial air transportation operations into Curaçao contrary to:

(1) The requirements of this part 10;

(2) The applicable paragraphs of Parts 7 and 8 of these regulations;

(3) The applicable Standards contained in the Annexes to the Chicago Convention, for the operation to be conducted; and

(4) Any other requirements that the Authority may specify.

10.1.1.5 AUTHORITY TO INSPECT

(a) A foreign air operator shall ensure that any person authorized by the Authority shall be permitted at any time, without prior notice, to board any aircraft operated for commercial air transportation to Curaçao:

(1) To inspect the documents and manuals required by this part 10;

(2) To conduct an inspection of the aircraft; and

(3) To take appropriate action when necessary to preserve safety.

When the Authority identifies a case of non-compliance or suspected non-compliance by an original operator with laws, regulations, and procedures applicable within the Curaçao territory or identifies a similar serious safety issue with that operator, the Authority will immediately notify the operator and, if the issue warrants it, the State of the Operator. Where the State of the Operator and the State of Registry are different, such notification will also be made to the State of Registry if the issue falls within the responsibilities of that State and warrants a notification.

In the case of notification to States as specified in paragraph 10.1.1.5 (b) of this subsection, if the issue and its resolution warrants it, the Authority will engage in consultations with the State of the Operator and the State of Registry, as applicable, concerning the safety standards maintained by the operator.

Inspections will be conducted in accordance with the requirements and checklist prescribed in the CCAA Ramp Inspection Manual, Appendix 1.

Findings from inspections will be resolved in accordance with the CCAA Ramp Inspection Manual, Appendix 2.

Note: ICAO Doc 8335, Manual of Procedures for Operations Inspection, Certification and Continued Surveillance, provides guidance on the surveillance of operations by foreign air operators. The manual also contains guidance on the consultations and related activities specified in this part, including the ICAO model clause on aviation safety, which, if included in a bilateral or multilateral agreement of air service, provides for consultations among States when safety issues are identified by any of the parties to the agreement.

10.2 APPROVAL FOR FOREIGN AIR OPERATORS TO OPERATE TO/FROM CURAÇAO

10.2.1.1 APPLICATION FOR APPROVAL TO OPERATE TO/FROM CURAÇAO FOR SCHEDULED OR SEASONAL COMMERCIAL AIR TRANSPORT AOC HOLDERS

(a) A foreign air operator from the territory of another State shall not operate an aircraft to/from Curaçao unless it is so authorized by the Authority and holds an associated Document of Authorization, Conditions, and Limitations issued by the Authority.

(b) A foreign air operator intending to operate to/from Curaçao shall submit an application to the Authority by using Form CCAA 006 obtainable at the Authority.

(c) An application for this approval to operate to/from Curaçao shall be accompanied by:

(1) A true copy of a valid AOC and associated operations specifications issued to the foreign air operator by the Foreign Authority.

(2) A copy of the approval page for a MEL for each aircraft type intended to be operated by the foreign air operator to/from Curaçao.

(3) A copy of the current certificate of aircraft registration and certificate of airworthiness issued for each aircraft type proposed to be operated by the foreign air operator to/from Curaçao or a copy of the complete Operations Specifications of the operator issued by the state of the operator listing the approved aircraft types and models and aircraft registration marks and approved Area of Operations (examples are FAA Operations Specifications A999, B050, D085). A signed official document from the respective Civil Aviation Authority of the AOC Holder with listed routes and aircraft is also acceptable.

(4) A copy of the valid insurance certificate.

(5) A copy of the operational procedures and practices of the foreign air operator (Aircraft Operations Manual).

(6) A copy of a document identifying the maintenance checks that are required to be performed on the aircraft of the foreign air operator while they are operated to/from Curaçao.

(7) A copy of the maintenance contract between the foreign air operator and the AMO, where the maintenance under paragraph 10.2.1.1 (c)(6) of this subsection is performed by an AMO approved by the Operator. An alternate means is having a qualified company AMT on board for turnaround flights or a listing of the check items (walk around) to be performed by the flight crew.

(8) A copy of the Air Service Agreement, containing a safety clause (available at the CCAA), allowing the foreign air operator to operate to/from Curaçao. If an ASA is not available, a separate safety clause shall be included in the Document of Authorization, Conditions and Limitations.

(9) In the case of wet-leased aircraft, a copy of the approval of the Authority of the State of the Operator, with identification of the foreign air operator that exercises operational and maintenance control of the aircraft.

(10) In the case of a foreign air operator that does not hold an AOC issued by the Authority (CCAA), a copy of the proposed air operator security programme which meets the requirements of the Curaçao Civil Aviation Regulations (CCAR) for acceptance.

(11) Any other document or confirmation the Authority considers necessary to ensure that the intended operations will be conducted safely i.e. TCAS II v7.1 or later, ADSB-Out.

(12) The foreign operator shall contract a Security Provider approved by the Authority to provide the required security controls.

(13) The foreign Operator shall contract a Ground Handler approved by the Authority for the safe ground handling of the aircraft.

(d) An applicant under these regulations shall apply for the issue of a Document of Authorization, Conditions, and Limitations at least 90 days before the date of commencement of intended operation.

10.2.1.1 (B) APPLICATION FOR APPROVAL TO OPERATE TO/FROM CURAÇAO FOR CHARTER OPERATIONS AND PRIVATE FLIGHTS (FAA PART 91 OR EQUIVALENT)

ISSUANCE OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) No approval authorization is required from the Authority **for Private Flights** except under special circumstances as indicated by NOTAM. Examples of special circumstances, not limited to, are a Pandemic, Natural Disasters, Sanction Requirements, Immigration and Customs requirements, or any special circumstance declared by the Authority or the Government of Curaçao.

(b) No aircraft operator from the territory of another State shall operate a charter or a private aircraft to/from Curaçao unless it complies with the following:

(1) An approved flight plan is filed along published approved ATS routes.

(2) All ATS requirements are met as published in the AIP.

(3) All aircraft shall have a valid Certificate of Airworthiness, Certificate of Registration, Radio License, Noise Certificate (if applicable) and a valid Insurance Certificate.

(4) Crewmembers shall carry valid licenses and passport as required and as detailed in paragraphs 10.3.1.2 and 10.5.

10.2.1.2 ISSUANCE OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) No foreign air operator shall commence commercial air transport operations to/from Curaçao until the Document of Authorization, Conditions, and Limitations has been issued by the CCAA.

The CCAA will issue a Document of Authorization, Conditions, and Limitations to a foreign air operator to conduct commercial air transport operations to/from Curaçao:

(1) Where the Authority is satisfied and has confidence in:

(i) The validity of the certificates and licenses associated with the operator.

(ii) The operator's personnel and aircraft.

(iii) The operational capabilities of the operator; and

(iv) The level of certification and oversight applied to the activities of the operator by the Foreign Authority.

Following approval of the operator's application to operate to/from Curaçao.

Upon a satisfactory administrative review of the documentation provided by the operator under paragraphs 10.2.1.1 (c) and (d) of this part; and when one of the following conditions is met:

(i) The operator has established a bilateral or multilateral agreement with the State of the Operator that includes in the agreement the safety clause referenced under paragraph 10.2.1.1 (c)(8) of this part; or

(ii) The operator has not established a bilateral or multilateral agreement with the State of the Operator, but the CCAA receives no significant safety findings or major deficiencies from available safety-related information relevant to the operator.

The criteria to be used for evaluating the conditions stipulated under paragraph 10.2.1.2 (b) of this subsection are contained in IS 10.2.1.2.

10.2.1.3 CONTENTS OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) The CCAA will issue a Document of Authorization, Conditions, and Limitations to foreign air operators for elements not listed in the operator's AOC and its associated operations specifications but considered necessary for compatible operations to/from Curaçao.

(b) A Document of Authorization, Conditions, and Limitations issued under this subsection shall contain:

(1) The operator's full name;

(2) The operator's principal place of business address and contact details for operational management.

(3) The operator's business address and contact details in Curaçao.

(4) The date of issuance and expiry (if any) of the operator's AOC.

(5) A statement that reads: "This document authorizes [NAME OF FOREIGN AIR OPERATOR] to operate to/from Curaçao.

(6) A statement that reads: "This document is issued to [NAME OF FOREIGN AIR OPERATOR] on the basis of it holding a valid AOC. Any changes to the AOC made by the Foreign Authority that issued and oversees the AOC of [NAME OF FOREIGN AIR OPERATOR] shall be submitted by [NAME OF FOREIGN AIR OPERATOR] in writing to the [AUTHORITY OF STATE] within 30 days of such change".

(7) A statement that reads: "This document ceases to have effect upon expiry, suspension, revocation, cancellation, or equivalent action"; and

(8) Any additional special limitations and specific approvals considered necessary by the CCAA.

(c) A Document of Authorization, Conditions, and Limitations issued to a foreign air operator by the CCAA shall be supplementary to these regulations.

10.2.1.4 CONTINUED VALIDITY OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) A foreign air operator, when conducting operations to/from Curaçao, shall ensure that it complies at all times with the requirements of:

(1) Its Document of Authorization, Conditions, and Limitations.

(2) Its approved air operator security programme; and

(3) The security requirements for air operators operating to/from Curaçao.

10.3 FOREIGN AIR OPERATOR MANUALS, DOCUMENTS, AND RECORDS

10.3.1.1 AIRCRAFT TECHNICAL LOG

(a) A foreign air operator shall use an aircraft technical log system containing the following information for each aircraft:

(1) Information about each flight necessary to ensure continued flight safety;

(2) The current aircraft approval for return to service;

(3) The current maintenance statement, showing the aircraft maintenance status of what scheduled, and out-of-phase maintenance is next due, unless the Authority agrees to the maintenance statement being kept elsewhere;

(4) All outstanding deferred defects that affect the operation of the aircraft; and

(5) Any necessary guidance and instructions on maintenance support.

10.3.1.2 MANUALS, DOCUMENTS, AND LICENCES TO BE CARRIED

(a) A foreign air operator shall ensure that the following manuals, documents, and licenses are carried on flights to/from Curaçao:

(1) A true copy of the AOC and associated operations specifications, all of which shall be in the English language;

(2) A copy of the Document of Authorization, Conditions, and Limitations issued by the CCAA required under this Part 10, in hard copy or in electronic format provided the information is accessible for inspection;

(3) The current parts of the Operations Manual that are relevant to the duties of the crew;

(4) The current parts of the Operations Manual that are required for the conduct of a flight, such as the MEL and information and instructions relating to the interception of aircraft, and which shall be easily accessible to the crew on board the aircraft on each flight;

(5) The current AFM or RFM approved by the State of Registry, or the current Aircraft Operating Manual approved by the State of the Operator; the AFM or RFM shall be updated by

implementing changes made mandatory by the State of Registry received from the State of Design;

(6) The current certificate of aircraft registration and the certificate of airworthiness in force with respect to that aircraft;

(7) The appropriate licenses and passports of the members of the flight crew and cabin crew, if a cabin crew license is required by the Foreign Authority;

(8) A noise certificate, where applicable, which will be issued in accordance with ICAO Annex 16, Volume I; and

(9) Appropriate approvals and/or licenses of crew members for aircraft radio operation.

10.3.1.3 ADDITIONAL INFORMATION AND FORMS TO BE CARRIED

(a) A foreign air operator shall ensure that, in addition to the documents and manuals prescribed in 10.3.1.2 of this part, the following information and forms, relevant to the type and area of operation, are carried on each flight:

(1) The operational flight plan;

(2) The aircraft technical log, containing at least the information required by paragraph 10.3.1.1 (a) of this part;

(3) The appropriate NOTAM, SNOWTAM, and/or other aeronautical information service briefing documentation;

(4) The appropriate meteorological information;

(5) The passenger and cargo manifests, as appropriate for the intended flight;

(6) The mass and balance documentation for the aircraft, certifying that the load carried is properly distributed and safely secured;

(7) The notification of special loads, including any dangerous goods; and

(8) The current maps and charts for the area of operation.

(9) A NOTOC if the operator is approved to carry Dangerous Goods and if Dangerous Goods are on board.

(b) The Authority may authorize the information detailed in paragraph 10.3.1.3 (a) of this subsection to be presented in a form other than on printed paper, provided the information is accessible for inspection.

10.3.1.4 PRODUCTION OF DOCUMENTS, MANUALS, AND RECORDS

(a) A foreign air operator shall:

(1) Give any person authorized by the Authority access to any documents, manuals, and records that are related to flight operations and maintenance; and

(2) Produce all such documents, manuals, and records, when requested to do so by the Authority, within a reasonable period of time.

(b) The PIC shall, within a reasonable time of being requested to do so by a person authorized by the Authority, produce to that person the documentation, manuals, and records required to be carried on board.

10.3.1.5 PRESERVATION, PRODUCTION, AND USE OF FLIGHT RECORDER RECORDINGS

(a) Following an accident or incident in Curaçao involving an aircraft of a foreign air operator, or when the Authority so directs, the foreign air operator of an aircraft on which a flight recorder is carried shall preserve the original recorded data for a period of not less than 60 days, unless otherwise directed by the Authority. This is applicable to both the Cockpit Voice Recorder and the Flight Data Recorder.

10.4 OPERATIONS AND PERFORMANCE

10.4.1.1 COMPUTATION OF PASSENGER AND BAGGAGE WEIGHED MASS

(a) A foreign air operator shall compute the mass of passengers and checked baggage using:

(1) The actual weighed mass of each person and the actual weighed mass of baggage; or

(2) The standard mass values specified by the Foreign Authority.

(b) The Authority may require a foreign air operator conducting operations to/from Curaçao to produce evidence validating any standard mass values used.

10.4.1.2 SINGLE-ENGINE AEROPLANES AT NIGHT OR IN INSTRUMENT METEOROLOGICAL CONDITIONS

(a) A foreign air operator may not operate a single-engine, non-turbine aeroplane:

(1) At night; or

(2) In IMC except under special VFR.

(b) A foreign air operator may operate a single-engine turbine aeroplane at night and in IMC provided the State of the Operator has ensured that:

(1) The turbine engine is reliable;

(2) The operator's maintenance procedures, operating practices, flight dispatch procedures, and crew training programmes are adequate;

(3) The aeroplane is appropriately equipped for flight at night and in IMC;

(4) Aeroplanes issued a certificate of airworthiness before 01 January 2005 have an engine trend monitoring system; and

(5) Aeroplanes issued a certificate of airworthiness on or after 01 January 2005 have an automatic trend monitoring system.

10.4.1.3 SINGLE-PILOT OPERATIONS UNDER INSTRUMENT FLIGHT RULES OR AT NIGHT

(a) A foreign air operator shall not operate an aeroplane under IFR or at night with a single pilot unless approved by the State of the Operator and the aeroplane meets the following conditions:

(1) The AFM does not require a flight crew of more than one pilot;

(2) The aeroplane is propeller driven;

(3) The maximum approved passenger seating configuration is not more than nine;

(4) The maximum certificated take-off mass does not exceed 5 700 kg;

(5) The aeroplane is equipped with:

(i) A serviceable autopilot that has at least altitude hold, and heading select modes;

(ii) A headset with a boom microphone or equivalent; and

(iii) A means of displaying charts that enables them to be readable in all ambient light conditions.

(6) The PIC has satisfied the requirements of experience, training, checking, and recency prescribed by the State of the Operator.

10.4.1.4 FLIGHT RULES WITHIN CURAÇAO

(a) Within the territorial boundaries of Curaçao, foreign air operators shall comply with the flight rules and limitations contained in CCAR Part 8 of these regulations.

(b) A foreign air operator shall ensure that its flight crew has available, and has become familiar with, the flight rules contained in CCAR Part 8 of these regulations.

10.5 FLIGHT CREW MEMBER QUALIFICATIONS

10.5.1.1 GENERAL

(a) A foreign air operator shall ensure that its flight crew members have the appropriate licenses and ratings for the operations to be conducted into/from Curaçao.

10.5.1.2 AGE LIMITATIONS

(a) Foreign air operators shall ensure that the required PIC engaged in single-pilot operations in aircraft operating to/from Curaçao shall be less than 60 years of age.

For aircraft engaged in operations into Curaçao requiring more than one pilot as flight crew, foreign air operators shall ensure that if one pilot is between 60 and 65 years of age, the other pilot is less than 60 years of age.

10.5.1.3 LANGUAGE PROFICIENCY

(a) Foreign air operators shall ensure that flight crew operating aircraft into Curaçao meet the language proficiency requirement of at least the ICAO Operational Level 4, as contained in ICAO Annex 1, for the English language and that such proficiency is endorsed on the license.

10.6 SECURITY

10.6.1.1 AIRCRAFT SECURITY

(a) A foreign air operator shall:

(1) Ensure that all appropriate personnel are familiar with and comply with the relevant requirements of the security programmes of the State of the Operator;

(2) Establish, maintain, and conduct approved training programmes that enable the operator's personnel to take appropriate action to prevent acts of unlawful interference such as sabotage or unlawful seizure of aircraft and to minimize the consequences of such events should they occur;

(3) Following an act of unlawful interference on board an aircraft, ensure that the PIC or, in his absence, the operator, shall submit without delay a report of such an act to the designated local authority and the Authority of the State of the Operator;

(4) Ensure that all aircraft carry a checklist of the procedures to be followed for that type of aircraft in searching for concealed weapons, explosives, or other dangerous devices; and

(5) Ensure that, if installed, the flight crew compartment door on all aircraft operated for the purpose of carrying passengers shall be capable of being locked from within the compartment in order to prevent unauthorized access.

10.6.1.2 UNAUTHORIZED CARRIAGE

(a) A foreign air operator shall take measures to ensure that no persons conceal themselves or cargo on board an aircraft.

10.7 DANGEROUS GOODS

10.7.1.1 OFFERING DANGEROUS GOODS FOR TRANSPORT BY AIR

(a) No foreign air operator may accept dangerous goods for transport by air into Curaçao unless the foreign air operator:

(1) Has been authorized to do so by the Foreign Authority; and

(2) Has conducted the required personnel training.

(b) The foreign air operator shall properly classify, document, certify, describe, package, mark, label, and put in a fit condition for transport, dangerous goods as required by the operator's dangerous goods programme as approved by the Foreign Authority.

(c) When the foreign air operator has been granted authority to accept dangerous goods and has an approved dangerous goods programme authorized by the Foreign Authority, the operator shall file a copy of its dangerous goods programme with the Authority (CCAA).

10.7.1.2 CARRIAGE OF WEAPONS OF WAR AND MUNITIONS OF WAR

(a) A foreign air operator conducting commercial air transportation operations to/from Curaçao shall:

(1) Not transport weapons of war and munitions of war by air unless an approval to do so has been granted by all States concerned;

(2) Ensure that weapons of war and munitions of war are:

(i) Stowed in the aircraft in a place that is inaccessible to passengers during flight;

and

(ii) In the case of firearms, unloaded, unless, before the commencement of the flight, an approval has been granted by all States concerned that such weapons of war and munitions of war may be carried in circumstances that differ in part or in total from those indicated in this paragraph; and

(3) Ensure that the PIC is notified before the flight begins of the details and location on board the aircraft of any weapons of war and munitions of war that are intended to be carried.

10.7.1.3 CARRIAGE OF SPORTING WEAPONS AND AMMUNITION

(a) A foreign air operator conducting commercial air transport operations to/from Curaçao shall take all measures necessary to ensure that any sporting weapons intended to be carried by air are reported.

(b) A foreign air operator accepting the carriage of sporting weapons shall ensure that they are:

(1) Stowed in a place on the aircraft that is inaccessible to passengers during flight, unless the Authority has determined that compliance is impracticable and has approved other procedures; and

(2) In the case of firearms or other weapons that can contain ammunition, unloaded.

(c) A foreign air operator may allow a passenger to carry ammunition for sporting weapons in that passenger's checked baggage, as approved by the Authority.

10.8 REGISTRATION/APPROVAL FOR FOREIGN AIR OPERATORS TO OPERATE REMOTELY PILOTED AIRCRAFT (RPA) IN THE TERRITORY OF CURAÇAO

10.8.1.1 APPLICATION FOR APPROVAL TO OPERATE REMOTELY PILOTED AIRCRAFT IN THE TERRITORY OF CURAÇAO

This section is applicable to a remotely piloted aircraft system (RPAS) engaged in international air navigation shall not be operated without an appropriate authorization from the State from which the take-off of the remotely piloted aircraft (RPA) is made (ICAO Annex 2 Rules of the Air, Appendix 4, paragraph 1).

This section is also applicable to a non-recreational remotely piloted aircraft system (RPAS) operation as determined by a Risk Assessment performed by the CCAA.

(a) A foreign air operator from the territory of another State shall not operate an RPA in Curaçao unless it is so registered or authorized by the Authority and holds a Document of Authorization, Conditions, and Limitations issued to it by the Authority.

(b) When a foreign operator wishes to apply to operate RPA in the territory of Curaçao, it shall:

(1) Make such application to the Authority in the form and manner prescribed; and

(2) Make such application by completing the application form prescribed in IS 10.8.1.1.

(c) An application for approval to operate in the territory of Curaçao shall be accompanied by a copy of the following, in an English translation if the original documents are not in English, for each RPA proposed to be operated in Curaçao:

(1) A certified true copy of a valid RPAS operator certificate;

(2) A certificate of aircraft registration;

(3) A certificate of airworthiness;

(4) The remote pilot(s) license and medical certificate(s);

(5) An aircraft radio station license, if applicable;

(6) An insurance certificate;

(7) A noise certificate issued in accordance with ICAO Annex 16;

(8) An air operator security programme; and

(9) Any other document the Authority considers necessary to ensure that the intended operations will be conducted safely.

(d) An applicant under these regulations shall apply for the initial issue of a foreign RPA approval at least 90 days before the date of commencement of the proposed operation.

(e) Once foreign RPA approval has been issued by the Authority, the operator shall:

(1) File a flight plan prior to operation of an RPA;

(2) Follow the operational rules for RPA in CCAR Part 8, 8.8.1.33 of these regulations;

(3) Notify the Authority and ATC immediately in the event of a flight cancellation; and

(4) In the case of changes to the proposed flight, submit such changes to the Authority for consideration.

Note: ICAO Doc 10019, Manual on Remotely Piloted Aircraft Systems (RPAS), *contains further information about the evolving regulatory framework of unmanned aircraft systems.*

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 10 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 10.1.1.5 reflects a standard required by 10.1.1.5 of this part.

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PART 10 – IMPLEMENTING STANDARDS

IS 10.1.1.5 AUTHORITY TO INSPECT

(a) AUTHORIZED INSPECTORS.

(1) Authorized inspectors assigned to conduct inspections of foreign aircraft will be experienced inspectors who understand the difference between ramp inspections conducted on their own (national) operators as part of their AOC management responsibilities and surveillance inspections conducted on aircraft of foreign air operators.

(2) These inspectors will be specifically trained and authorized to conduct such inspections and will possess appropriate credentials identifying them as authorized inspectors employed by the Authority.

(3) Ramp inspections of foreign air operators will be performed in a similar manner to the ramp inspections of national operators, with some important differences, as the standards applied to foreign air operators will be based primarily on International Standards and national regulations derived from International Standards.

(4) Authorized inspectors will demonstrate a language proficiency in English of the ICAO Operational Level 4 or higher.

(5) Authorized inspectors will have in their personal training records evidence that they have been trained and are knowledgeable in the following areas:

(i) The Chicago Convention and its Annexes 1, 6, 7, and 8;

(ii) The differences between ICAO Standards and national regulations, which may be more detailed or restrictive;

(iii) Diplomacy, including dealing with potential language difficulties and cultural differences;

(iv) The sovereignty of foreign aircraft, which means that inspecting authority is limited to documenting, communicating, and reporting findings, except as provided in paragraph 10.1.1.5 (a)(3) of this part;

(v) The observation, recording, and reporting of procedures during inspections of foreign air operators; and

(vi) Surveillance activities that are not linked to the certification process of the operator.

(b) PRE-INSPECTION PLANNING.

(1) Authorized inspectors will prepare for inspections of foreign air operators by updating themselves on recent changes to national regulations with respect to operations by operators from other States.

(2) A check may be made with the authority for the foreign air operator to operate to/from Curaçao, and to operate the particular aircraft concerned, by consideration of its nationality and registration marks.

(3) The record of the foreign air operator's history in Curaçao will be examined, including records of past aircraft inspections and the particular aircraft concerned in the inspection to be conducted, to check for any outstanding actions or recurring trends that might warrant particular attention.

(4) Ramp inspections will involve the aircraft and its crew, line station operations, servicing and maintenance, and the ramp and gate area condition and activity. Time constraints may apply only to the inspection of the aircraft and crew. A determination will be made of

the number of authorized inspectors and the specializations to be involved, the distribution of tasks, and the time to be allocated to each task.

(5) As the inspection plan includes comprehensive inspections, it will not be possible to cover all the desired elements in the time available for a particular inspection without causing unreasonable delay to the foreign air operator.

(6) As inspections on aircraft of any one foreign air operator may be conducted at different aerodromes by different authorized inspectors, the overall inspection plan will take this into account. Some elements will be covered at every inspection; others may be covered over a number of inspections. Thus, comprehensive records of all inspections of aircraft of a particular operator will be maintained in a central database, in either paper or electronic format that is accessible to, and updated by, the authorized inspectors concerned.

(7) From these records, it will be necessary to plan the content of inspections so that a complete inspection of the aircraft of any one foreign air operator will be undertaken over a defined period.

(8) Selection of a particular aircraft to inspect should be done at random, in a non-discriminatory manner. However, selection will follow the principles of risk management to identify operations perceived to present a higher safety risk and, as a result, conduct additional inspection activities aimed at those operations, which may be linked to a specific:

(i) State of the Operator;

(ii) Aircraft type;

(iii) Type of operation (scheduled, non-scheduled, cargo, etc.);

(iv) Foreign air operator; or

(v) Individual aircraft.

(c) INSPECTIONS.

(1) The scope of a foreign air operator ramp inspection is as follows:

(i) It is not possible to cover all items on the checklist at every ramp inspection. Inspections will be planned to cover high-risk items and to cover all other items over a series of inspections.

(ii) It is essential that adequate records be kept and that there is complete coordination between all authorized inspectors involved in ramp inspections for any one operator.

(2) Areas that will be checked during a ramp inspection are:

(i) Flight deck;

(ii) Cabin/safety;

(iii) Aircraft external condition;

(iv) Cargo & Dangerous Goods; and

(v) General.

(d) The Authority will use the checklist prescribed in the CCAA Ramp Inspection Manual Appendix 1, CCAA Form 010.

(e) The Authority will use the procedures in the Ramp Inspection Manual, Chapter 4 and Appendix 2 to resolve findings from inspections.

IS 10.2.1.1 APPLICATION FOR APPROVAL TO OPERATE IN THE TERRITORY OF CURAÇAO

(a) CCAA Form 006 available at the Authority shall be used by a foreign air operator that intends to apply for approval to operate in the territory of Curaçao.

IS 10.2.1.1(B) SAFETY CLAUSE EXAMPLE

(a) An example of the safety clause (extracted from ICAO Doc 8335, *Manual of Procedures for Operations Inspection, Certification and Continued Surveillance*) that shall be inserted into air service agreements that allow operators to provide service to another State and vice versa, is available at the CCAA.

(1) Each Party may request consultations at any time concerning the safety standards maintained by the other Party in areas relating to aeronautical facilities, flight crew, aircraft and the operation of aircraft. Such consultations shall take place within 30 days of that request.

(2) If, following such consultations, one Party finds that the other Party does not effectively maintain and administer safety standards in the areas referred to in paragraph (1) of this subsection that meet the Standards established at that time pursuant to ICAO Doc 7300, *Convention on International Civil Aviation*, hereinafter referred to as the Chicago Convention, the other Party shall be informed of such findings and of the steps considered necessary to conform with the ICAO Standards. The other Party shall then take appropriate corrective action within an agreed time period.

(3) Pursuant to Article 16 of the Chicago Convention, it is further agreed that any aircraft operated by, or on behalf of, an airline of one Party, on service to or from the territory of another Party, may, while within the territory of the other Party, be the subject of a search by the authorized representatives of the other Party, provided this does not cause unreasonable delay in the operation of the aircraft. Notwithstanding the obligations mentioned in Article 33 of the Chicago Convention, the purpose of this search is to verify the validity of the relevant aircraft documentation, the licensing of its crew, and that the aircraft equipment and the condition of the aircraft conform to the Standards established at that time pursuant to the Chicago Convention.

(4) When urgent action is essential to ensure the safety of an airline operation, each Party reserves the right to immediately suspend or vary the operating authorization of an airline or airlines of the other Party.

(5) Any action by one Party in accordance with paragraph (4) above shall be discontinued once the basis for the taking of that action ceases to exist.

(6) With reference to paragraph (2) above, if it is determined that one Party remains in non-compliance with ICAO Standards when the agreed time period has lapsed, the Secretary General of ICAO shall be advised thereof. The latter shall also be advised of the subsequent satisfactory resolution of the situation.

IS 10.2.1.2 ISSUANCE OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) The CCAA will, when evaluating an application by a foreign air operator to operate in the territory of Curaçao examine both:

(1) The safety oversight capabilities and record of the Foreign Authority of the State of the Operator and, if different, the State of Registry; and

(2) The operational procedures and practices of the foreign air operator.

Note: This is necessary to have confidence in the validity of the certificates and licenses associated with the foreign air operator and its personnel, aircraft, and operational capabilities and in the level of certification and oversight applied to the activities of the foreign air operator by the Foreign Authority of the State of the Operator.

(b) The CCAA will obtain information on the safety oversight capabilities and the level of compliance with ICAO Standards of the Foreign Authority of the State of the Operator by accessing information from the ICAO USOAP. This information is available:

(1) On the ICAO website (http://www.icao.int) through the iSTARS website;

(2) On the ICAO Safety Oversight Audit website, which is accessible to the Authority through iSTARS, subject to a password available only to the CCAA from ICAO; and

(3) By accessing audit summary reports from the USOAP audits available to the CCAA on the ICAO website (www.icao.int/safety/iStars/pages/into.aspx), subject to a password available only to the CCAA from ICAO.

(c) The CCAA will obtain and evaluate information on the foreign air operator. This information is available:

(1) By applying to the Foreign Authority of the State of the Operator for reports of any inspections that may have been conducted; and

(2) By requesting access to reports of audits of a foreign air operator, conducted by independent aviation audit organizations and/or by other air operators, such as code-sharing partners. Such non-regulatory audits shall be used in conjunction with other information, such as a report from the ICAO USOAP, or other inspection results to evaluate the application.

(d) The Authority will complete Section 2 of the Application for Commercial Air Transport Operations by a Foreign Air Operator.

(1) In the case of significant negative findings and/or major deficiencies relevant to its review of the safety oversight capabilities and the level of compliance with ICAO Standards of the Foreign Authority of the State of the Operator, the CCAA will engage in discussions with the Foreign Authority of the State of the Operator seeking resolution of the deficiencies prior to deciding whether to approve or not to approve the Application for Commercial Air Transport Operations by a Foreign Air Operator and whether to approve or not to approve operations specifications.

(2) In the case of significant negative findings and/or major deficiencies relevant to its evaluation of the foreign air operator, the CCAA will not approve the foreign air operator's Application for Commercial Air Transport Operations by a Foreign Air Operator and will not issue a Document of Authorization, Conditions, and Limitations to the foreign air operator.

IS 10.8.1.1 APPLICATION FOR REGISTRATION OR APPROVAL TO OPERATE REMOTELY PILOTED AIRCRAFT IN THE TERRITORY OF CURAÇAO

(a) The application form to be used by a foreign air operator that intends to apply for Approval to operate RPA in the territory of Curaçao is obtainable at the Authority.

This section is applicable to a remotely piloted aircraft system (RPAS) engaged in international air navigation, shall not be operated without an appropriate authorization from the State from which the take-off of the remotely piloted aircraft (RPA) is made (ICAO Annex 2 Rules of the Air, Appendix 4, paragraph 1).

This section is also applicable to a non-recreational remotely piloted aircraft system (RPAS) operation as determined by a Risk Assessment performed by the CCAA.

(b) The application form to be used by an operator that intends to apply for Registration to operate a personal recreational RPA locally in the territory of Curaçao is obtainable at the Authority. Additional requirements of the Bureau Telecommunications & Post apply.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 11 – AERIAL WORK

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PART 11 – AERIAL WORK

11.1 GENERAL

11.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for those operators that are conducting aerial work and operations that are considered to be aerial work in Curaçao.

(b) All persons who conduct aerial work in Curaçao shall, at all times, continue in compliance with the certification requirements of this part.

(c) All persons who conduct aerial work in Curaçao shall, at all times, continue in compliance with the applicable airworthiness requirements and operating rules of this part, except where this part grants relief from those requirements.

(d) All persons who conduct remotely piloted aircraft (RPA) aerial work in Curaçao shall, at all times, continue in compliance with:

(1) The RPA requirements in 8.8.1.33 of these regulations;

(2) The RPA requirements for foreign air operators in Part 10 of these regulations;

(3) The personnel licensing requirements for RPA in Part 2 of these regulations; and

(4) The applicable requirements of this part, except where this part may be less prescriptive than 8.8.1.33 of these regulations.

(e) A person operating an RPA and its remotely piloted aircraft systems (RPAS), registered in Curaçao or holding an operator certificate from Curaçao, shall:

(1) Not operate in Curaçao without appropriate authorisation from the Authority;

(2) Not engage in international air navigation without appropriate authorisation from the State from which the take-off of the RPA is made;

(3) Not operate across or within the territory of another State without special authorisation issued by each State, and shall be obtained authorisation prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned;

(4) Not operate over the high seas without prior coordination with the appropriate air traffic service authority, and shall obtain authorisation prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned;

(5) Operate in accordance with conditions specified by the State of Registry, the State of the Operator, if different from the State of Registry, or the State(s) the flight is to operate within; and

(6) Ensure that the RPAS meets the performance and equipment carriage requirements for the specific airspace in which the flight is to operate.

(f) All persons who intend to conduct RPA aerial work in Curaçao shall submit an application to the Authority on a form and in a manner as prescribed in IS 11.1.1.1(F).

(g) All foreign air operators who intend to conduct RPA aerial work in Curaçao shall submit an application to the Authority on a form and in a manner as prescribed in IS 10.8.1.1(a).

11.1.1.2 DEFINITIONS

(a) Definitions concerning the Subparts other than 11.2 are contained in Part 1.

(b) For the purposes of Subpart 11.2, the following definitions shall apply:

(1) **Approved parachute.** A parachute approved by the CAA of an EASA Member State or a parachute manufactured under a type certificate or an FAA Technical Standard Order (C-23 series), or a personnel-carrying military parachute (other than a high altitude, high speed, or ejection type) identified by a US Navy Air Facility, a US Army Air Field, and US Air Force-Navy drawing number, a US Army Air Field order number, or any other military designation or specification number.

(2) **Automatic Activation Device.** A self-contained mechanical or electro-mechanical device that is attached to the interior of the reserve parachute container, which automatically initiates parachute deployment of the reserve parachute at a pre-set altitude, time, percentage of terminal velocity, or combination thereof.

(3) **Direct Supervision.** A certificated rigger who personally observes a non-certificated person packing a main parachute to the extent necessary to ensure that it is being done properly, and takes responsibility for that packing.

(4) **Drop Zone.** means any pre-determined area with a radius of 3.7 km (2 nm) around the center of the target landing area with the column of airspace above in the form of a cylinder with a height equal to the maximum height from which parachutists intend to jump or objects are dropped.

(5) **Foreign parachutist.** means a parachutist who is neither a Curaçao citizen or a resident alien and is participating in parachute operations within Curaçao.

(6) **Freefall.** means the portion of a parachute jump or drop between aircraft exit and parachute deployment in which the parachute is activated manually by the parachutist at the parachutist's discretion or automatically, or, in the case of an object, is activated automatically.

(7) **Main parachute.** means a parachute worn as the primary parachute used or intended to be used in conjunction with a reserve parachute.

(8) **Object.** means any item other than a person that descends to the surface from an aircraft in flight when a parachute is used or is intended to be used during all or part of the descent.

(9) **Parachute.** means a cloth canopy device attached to the body of a person (or an object) by strings, which enables the person to jump (or the object to be dropped) from an aircraft while in flight, that fills with air and act as a brake, thus allows the person (or object) to float safely to the ground.

(10) **Parachute drop.** means the descent of an object to the surface from an aircraft in flight when a parachute is used or intended to be used during all or part of that descent.

(11) **Parachute jump.** means a parachute operation that involves the descent of one or more persons to the surface from an aircraft in flight when an aircraft is used or intended to be used during all or part of that descent.

(12) **Parachute operation.** means the performance of all activity for the purpose of, or in support of, a parachute jump or a parachute drop. This parachute operation can involve, but

is not limited to, the following persons: parachutist, parachutist in command and passenger in tandem parachute operations, drop zone or owner or operator, jump master, certificated parachute rigger, or pilot.

(13) **Parachutist.** means a person who intends to exit an aircraft while in flight using a single-harness, dual parachute system to descend to the surface.

(14) **Parachutist in command.** means the person responsible for the operation and safety of a tandem parachute operation.

(15) **Passenger parachutist.** means a person who boards an aircraft, acting as other than the parachutist in command of a tandem parachute operation, with the intent of exiting the aircraft while in-flight using the forward harness of a dual harness tandem parachute system to descend to the surface.

(16) **Pilot chute.** means a small parachute used to initiate and/or accelerate deployment of a main or reserve parachute.

(17) **Ram-air parachute.** means a parachute with a canopy consisting of an upper and lower surface that is inflated by ram air entering through specially designed openings in the front of the canopy to form a gliding airfoil.

(18) **Reserve parachute.** means an approved parachute worn for emergency use to be activated only upon failure of the main parachute or in any other emergency where use of the main parachute is impractical or use of the main parachute would increase risk.

(19) **Single-harness.** dual parachute system. means the combination of a main parachute, approved reserve parachute, and approved single person harness and dual-parachute container. This parachute system may have an operational automatic activation device installed.

(20) **Tandem parachute operation.** means a parachute operation in which more than one person simultaneously uses the same tandem parachute system while descending to the surface from an aircraft in flight.

(21) **Tandem parachute system.** means the combination of a main parachute, approved reserve parachute, and approved harness and dual parachute container, and a separate approved forward harness for a passenger parachutist. This parachute system must have an operational automatic activation device installed.

(22) **Target Landing Area.** The terrain on which the parachutist intends to land after making an intentional parachute jump or the terrain on which the object is intended to touch down after the parachute drop. The position of the center-point of a target landing area is expressed in World Geodetic System 1984 (WGS 84) latitude and longitude coordinates.

11.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AGL** – above ground level

(2) **AIP** – Aeronautical Information Publication

(3) **ATC** – air traffic control

(4) **ATPL** – airline transport pilot licence

(5) **CAA** – civil aviation authority

(6) **CG** – centre of gravity

(7) **CPL** – commercial pilot licence

(8) **EASA** – European Union Aviation Safety Agency

(9) **FAA** – Federal Aviation Administration (USA)

(10) **IFR** – instrument flight rules

(11) **NOTAM** – Notice To Airmen

(12) **PIC** – pilot-in-command

(13) **PPL** – private pilot licence

(14) **RPA** – remotely piloted aircraft

(15) **VFR** – visual flight rules

11.2 PARACHUTE OPERATIONS

11.2.1 *GENERAL*

11.2.1.1 APPLICABILITY

(a) Except as provided in Paragraph (b) and (c) of this Subsection, this Subpart prescribes rules governing parachute operations conducted in Curaçao.

(b) This Subpart does not apply to a parachute operation conducted:

(1) In response to an in-flight emergency; or

(2) To meet an emergency on the surface when it is conducted.

(c) Subsections 11.2.1.2, 11.2.1.4, 11.2.2.1, 11.2.2.2, 11.2.2.3, 11.2.2.4 through 11.2.2.6 and 11.2.2.7(a)(1) of this part do not apply to a parachute operation conducted by a member of an Armed Force:

(1) Over or within a restricted area when that area is under the control of an Armed Force;

(2) During military operations.

11.2.1.2 RESTRICTION

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from an aircraft, if that operation creates a hazard to air traffic or to persons or property on the surface.

11.2.1.3 USE OF ALCOHOL AND DRUGS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a person to conduct a parachute operation from that aircraft, if that person is or appears to be under the influence of:

(1) Alcohol; or

(2) Any drug that affects that person's faculties in any way contrary to safety.

11.2.1.4 INSPECTIONS

(a) The Authority may inspect any parachute operation to which this part applies (including inspections at the site where the parachute operation is being conducted) to determine compliance with the regulations of this Subpart.

11.2.1.5 PARACHUTE JUMP DROP ZONES

(a) No person may conduct regular parachute operations, and no pilot in command of an aircraft may allow a person to conduct regular parachute operations at any parachute drop zone, unless:

(1) a written permission has been granted by the air traffic control organization concerned, after the air traffic control organization concerned has consulted with the Authority; and

(2) the parachute drop zone is announced as such to airmen by means of a publication in the AIP or a NOTAM.

(b) No person may conduct incidental parachute operations, and no pilot in command of an aircraft may allow a person to conduct incidental parachute operations at any part of the airspace as a parachute drop zone, unless announced as such to airmen by means of a publication in a NOTAM.

(c) The incidental use of a parachute drop zone that is located wholly or partly within one (or more) air traffic control area(s), permission must be obtained from the air traffic control service(s) concerned after the air traffic control service concerned has consulted with the Authority.

(d) The Authority may, for security and safety reasons, instruct the air traffic control service not to grant permission as referred to in the first paragraph.

(e) Before the start of the flight, the pilot in command of the aircraft from which the parachute jumps are performed must ensure that the parachute jump area has been made known to airmen by means of a publication in the AIP or a NOTAM.

(f) A flight, or part of a flight, during which one or more parachute jumps will be performed in air traffic control area(s) within which VFR flights obtain air traffic control service, shall be conducted in accordance with the following requirements:

(1) the relevant part of the flight is conducted in accordance with the rules applicable to controlled VFR flight;

(2) the area and period within which and the height(s) from which parachute jumps are performed are stated in the flight plan;

(3) a provisional clearance is obtained from the relevant air traffic control service before the start of the flight;

(4) if parachute jumps or series of successive parachute jumps are to be performed at intervals, this shall be reported to the air traffic control service concerned upon first radio contact;

(5) Immediately before performing the parachute jumps, a final clearance for this purpose is obtained from the air traffic control service concerned.

11.2.2 *OPERATING RULES*

11.2.2.1 RADIO EQUIPMENT AND USE REQUIREMENTS

(a) Except when otherwise authorized by air traffic control:

(1) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, in or into controlled airspace unless, during that flight:

(i) The aircraft is equipped with a functioning two-way radio communication system appropriate to the air traffic control facilities being used; and

(ii) Radio communications have been established between the aircraft and the air traffic control facility having jurisdiction over the affected airspace of the first intended exit altitude at least 5 minutes before the parachute operation begins. The pilot in command must establish radio communications to receive information regarding air traffic activity in the vicinity of the parachute operation.

(2) The pilot in command of an aircraft used for any parachute operation in or into controlled airspace must, during each flight:

(i) Continuously monitor the appropriate frequency of the aircraft's radio communications system from the time radio communications are first established between the aircraft and air traffic control, until the pilot advises air traffic control that the parachute operation has ended for that flight;

(ii) Advise air traffic control when the last parachutist or object leaves the aircraft; and

(iii) Advise air traffic control when the last parachutist or object has landed.

(b) Parachute operations must be aborted if, prior to receipt of a required air traffic control authorization, or during any parachute operation in or into controlled airspace, the required radio communications system is or becomes inoperative.

11.2.2.2 INFORMATION REQUIRED AND NOTICE OF CANCELLATION OR POSTPONEMENT OF A PARACHUTE OPERATION

(a) Each person requesting an authorization under 11.2.2.5(b) and 11.2.2.7(a)(2) of this Subpart and each person submitting a notification under 11.2.2.7(a)(3) of this Subpart must provide the following information (on an individual or group basis):

(1) The date and time the parachute operation will begin;

(2) The radius of the drop zone around the target expressed in nautical miles;

(3) The location of the center of the drop zone in relation to:

(i) The nearest VOR facility in terms of the VOR radial on which it is located and its distance in nautical miles from the VOR facility when that facility is 30 nautical miles or less from the drop zone target; or

(ii) the nearest VOR.

(4) Each altitude above mean sea level at which the aircraft will be operated when parachutists or objects exits the aircraft;

(5) The duration of the intended parachute operation;

(6) The name, address, and telephone number of the person who requests the authorization or gives notice of the parachute operation;

(7) The registration mark of the aircraft to be used;

(8) In case the aircraft to be used is a foreign registered aircraft, the following documents must also be presented:

(i) A copy of the Certificate of Registry;

(ii) A copy of the Certificate of Airworthiness; and

(iii) A copy of the Certificate of Insurance.

(9) Each holder of a certificate of authorization issued under 11.2.2.5(b) and 11.2.2.7(b) of this Subpart must present that certificate for inspection upon the request of the Authority or any local official.

(b) Each person requesting an authorization under 11.2.2.5(b) and 11.2.2.7(a)(2) of this part and each person submitting a notice under 11.2.2.7(a)(3) of this Subpart must promptly notify the air traffic control facility having jurisdiction over the affected airspace if the proposed or scheduled parachute operation is canceled or postponed.

11.2.2.3 FLIGHT VISIBILITY AND CLEARANCE FROM CLOUD REQUIREMENTS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft:

(1) Into or through a cloud; or

(2) When the flight visibility or the distance from any cloud is less than that prescribed in the following table:

Altitude	Flight visibility (nautical miles)	Distance from clouds
1,200 feet or less above the surface regardless of the MSL altitude.	3	500 feet below, 1,000 feet above, 2,000 feet horizontal.
More than 1,200 feet above the surface but less than 10,000 feet MSL.	3	500 feet below, 1,000 feet above, 2,000 feet horizontal.
More than 1,200 feet above the surface and at or above 10,000 feet MSL.	5	1,000 feet below, 1,000 feet above, 1 mile horizontal.

11.2.2.4 PARACHUTE OPERATIONS BETWEEN SUNSET AND SUNRISE

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a person to conduct a parachute operation from an aircraft between sunset and sunrise, unless such operation has been specifically authorized by the Authority.

(b) The person or object descending from the aircraft shall display a light that is visible for at least 3 nautical miles.

(c) The light required by paragraph (b) of this Subsection must be displayed from the time that the person or object is under a properly functioning open parachute until that person or object reaches the surface.

11.2.2.5 PARACHUTE OPERATIONS OVER OR INTO A CONGESTED AREA OR AN OPEN-AIR ASSEMBLY OF PERSONS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, over or into a congested area of a city, town, or settlement, or an open-air assembly of persons unless a certificate of authorization for that parachute operation has been issued under this Subpart. However, a parachutist may drift over a congested area or an open-air assembly of persons with a fully deployed and properly functioning parachute if that parachutist is at a sufficient altitude to avoid creating a hazard to persons or property on the surface.

(b) An application for a certificate of authorization issued under this Subpart must:

(1) Be made in the form and manner prescribed by the Authority, and

(2) Contain the information required in 11.2.2.2(a) of this Subpart.

(c) Each holder of, and each person named as a participant in a certificate of authorization issued under this section must comply with all requirements contained in the certificate of authorization

(d) Each holder of a certificate of authorization issued under this Section must present that certificate for inspection upon the request of the Authority, or local official.

11.2.2.6 PARACHUTE OPERATIONS OVER OR ONTO AIRPORTS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, over Hato airport unless.

(b) Prior approval has been obtained from the management of the airport to conduct parachute operations over or on that airport.

(c) Approval has been obtained from the control tower to conduct parachute operations over or onto that airport.

(d) Two-way radio communications are maintained between the pilot of the aircraft involved in the parachute operation and the control tower of the airport over or onto which the parachute operation is being conducted.

(e) A parachutist may drift over that airport with a fully deployed and properly functioning parachute if the parachutist is at least 2,000 feet above that airport's traffic pattern, and avoids creating a hazard to air traffic or to persons and property on the ground.

11.2.2.7 PARACHUTE OPERATIONS IN DESIGNATED AIRSPACE

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft:

(1) Over or within a restricted area or prohibited area unless the controlling agency of the area concerned has authorized that parachute operation;

(2) Within or into a Class A, B, C, D airspace area without, or in violation of the requirements of, an air traffic control authorization issued under this section;

(3) Except as provided in paragraph (c) and (d) of this section, within or into Class E or G airspace area unless the air traffic control facility having jurisdiction over the airspace at the first intended exit altitude is notified of the parachute operation no earlier than 24 hours before or no later than 1 hour before the parachute operation begins.

(b) Each request for a parachute operation authorization or notification required under this section must be submitted to the air traffic control facility having jurisdiction over the airspace at the first intended exit altitude and must include the information prescribed by 11.2.2.2(a) of this Subpart.

(c) For the purposes of paragraph (a)(3) of this section, air traffic control facilities may accept a written notification from an organization that conducts parachute operations and lists the scheduled series of parachute operations to be conducted over a stated period of time not longer than 12 calendar months. The notification must contain the information prescribed by 11.2.2.2 (a) of this Subpart, identify the responsible persons associated with that parachute operation, and be submitted at least 15 days, but not more than 30 days, before the parachute operation begins. The Authority may revoke the acceptance of the notification for any failure of the organization conducting the parachute operations to comply with its requirements certificate holder shall ensure that all single-engine aircraft, while over a congested area, operate.

(d) Paragraph (a)(3) of this Subsection does not apply to a parachute operation conducted by a member of an Armed Force within a restricted area that extends upward from the surface when that area is under the control of an Armed Force.

11.2.3 *PARACHUTE EQUIPMENT AND PACKING*

11.2.3.1 USE OF SINGLE –HARNESS, DUAL PARACHUTE SYSTEMS

(a) No person may conduct a parachute operation using a single-harness, dual-parachute system, and no pilot in command of an aircraft may allow any person to conduct a parachute operation from that aircraft using a single-harness, dual-parachute system, unless that system has at least one main parachute, one approved reserve parachute, and one approved single person harness and container that are packed as follows.

(b) The main parachute must have been packed within 180 days before the date of its use by a certificated parachute rigger, the person making the next jump with that parachute, or a non-certificated person under the direct supervision of a certificated parachute rigger.

(c) The reserve parachute must have been packed by a certificated parachute rigger:

(1) Within 180 days before the date of its use, if its canopy, shroud, and harness are composed exclusively of nylon, rayon, or similar synthetic fiber or material that is substantially resistant to damage from mold, mildew, and other fungi, and other rotting agents propagated in a moist environment; or

(2) Within 60 days before the date of its use, if it is composed of any amount of silk, pongee, or other natural fiber, or material not specified in paragraph (c)(1) of this Subsection.

(d) If installed, the automatic activation device must be maintained in accordance with manufacturer instructions for that automatic activation device

11.2.3.2 USE OF TANDEM PARACHUTE SYSTEMS

(a) No person may conduct a parachute operation using a tandem parachute system, and no pilot in command of an aircraft may allow any person to conduct a parachute operation from that aircraft using a tandem parachute system, unless:

(1) One of the parachutists using the tandem parachute system is the parachutist in command, and meets the following requirements:

(i) Has a minimum of 3 years of experience in parachuting, and must provide documentation that the parachutist;

(ii) Has completed a minimum of 500 freefall parachute jumps using a ram-air parachute; and

(iii) Holds a master parachute license issued by an organization recognized by the CCAA; and

(iv) Has successfully completed a tandem instructor course given by the manufacturer of the tandem parachute system used in the parachute operation or a course acceptable to the Authority;

(v) Has been certified by the appropriate parachute manufacturer or tandem course provider as being properly trained on the use of the specific tandem parachute system to be used.

(2) The person acting as parachutist in command:

(i) Has briefed the passenger parachutist before boarding the aircraft. The briefing must include the procedures to be used in case of an emergency with the aircraft or after exiting the aircraft, while preparing to exit and exiting the aircraft, freefall, operating the parachute after freefall, landing approach, and landing

(ii) Uses the harness position prescribed by the manufacturer of the tandem parachute equipment.

(b) No person may make a parachute jump with a tandem parachute system unless:

(1) The main parachute has been packed by a certificated parachute rigger, the parachutist in command making the next jump with that parachute, or a person under the direct supervision of a certificated parachute rigger;

(2) The reserve parachute has been packed by a certificated parachute rigger in accordance with 11.2.3.1(b) of this part

(3) The tandem parachute system contains an operational automatic activation device for the reserve parachute, approved by the manufacturer of that tandem parachute system. The device must:

(i) Have been maintained in accordance with manufacturer instructions; and

(ii) Be armed during each tandem parachute operation.

(4) The passenger parachutist is provided with a manual main parachute activation device and instructed on the use of that device, if required by the owner/operator;

(5) The main parachute is equipped with a single-point release system;

(6) The reserve parachute meets Technical Standard Order C23 specifications.

11.2.3.3 USE OF STATIC LINES

(a) Except as provided in paragraph (c) of this section, no person may conduct a parachute operation using a static line attached to the aircraft and the main parachute unless an assist device, described and attached as follows, is used to aid the pilot chute in performing its function, or, if no pilot chute is used, to aid in the direct deployment of the main parachute canopy. The assist device must:

(1) Be long enough to allow the main parachute container to open before a load is placed on the device.

(2) Have a static load strength of:

(i) At least 28 pounds but not more than 160 pounds if it is used to aid the pilot chute in performing its function; or

(ii) At least 56 pounds but not more than 320 pounds if it is used to aid in the direct deployment of the main parachute canopy; and

(3) Be attached as follows:

(i) At one end, to the static line above the static-line pins or, if static-line pins are not used, above the static-line ties to the parachute cone;

(ii) At the other end, to the pilot chute apex, bridle cord, or bridle loop, or, if no pilot chute is used, to the main parachute canopy.

(b) No person may attach an assist device required by paragraph (a) of this Subsection to any main parachute unless that person is a certificated parachute rigger or that person makes the next parachute jump with that parachute;

(c) An assist device is not required for parachute operations using direct-deployed, ram-air parachutes.

11.2.3.4 FOREIGN PARACHUTISTS AND EQUIPMENT

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft with an unapproved foreign parachute system unless:

(1) The parachute system is worn by a foreign parachutist who is the owner of that system;

(2) The parachute system is of a single-harness dual parachute type;

(3) The parachute system meets the civil aviation authority requirements of the foreign parachutist's country;

(4) All foreign non-approved parachutes deployed by a foreign parachutist during a parachute operation conducted under this section shall be packed as follows:

(i) The main parachute must be packed by the foreign parachutist making the next parachute jump with that parachute, a certificated parachute rigger, or any other person acceptable to the Authority;

(ii) The reserve parachute must be packed in accordance with the foreign parachutist's civil aviation authority requirements, by a certificated parachute rigger, or any other person acceptable to the Authority.

11.3 ROTORCRAFT EXTERNAL-LOAD OPERATIONS

11.3.1 *GENERAL*

11.3.1.1 APPLICABILITY

(a) This subpart prescribes:

(1) Airworthiness requirements for rotorcraft used in external-load operations; and

(2) Operating and certification rules governing the conduct of rotorcraft external-load operations in Curaçao.

(b) The certification requirements of this part do not apply to:

(1) Rotorcraft manufacturers when developing external-load attaching means;

(2) Manufacturers demonstrating compliance of equipment utilised under this part;

(3) Operations conducted by a person demonstrating compliance for the issuance of a certificate under this part;

(4) Training flights conducted in preparation for the demonstration of compliance with this part; or

(5) A military organization conducting operations with military aircraft.

(c) For the purpose of this part, a person other than a crew member or a person who is essential and directly connected with the external-load operation may be carried only in approved Class D rotorcraft-load combinations.

11.3.2 *CERTIFICATION RULES*

11.3.2.1 CERTIFICATE REQUIRED

(a) No person subject to this part may conduct rotorcraft external-load operations within Curaçao without, or in violation of the special limitations and specific approvals of, a rotorcraft external-load operator certificate issued by the Authority.

11.3.2.2 DURATION OF CERTIFICATE

(a) Unless sooner surrendered, suspended, or revoked, a rotorcraft external-load operator certificate shall expire at the end of the 24th month after the month in which it is issued or renewed.

11.3.2.3 APPLICATION FOR CERTIFICATE ISSUANCE OR RENEWAL

(a) Application for an original certificate or renewal of a certificate issued under this part shall be made on a form and in a manner prescribed by the Authority.

11.3.2.4 CERTIFICATION REQUIREMENTS

(a) The Authority will issue a rotorcraft external-load operator certificate to an applicant that meets the requirements of this subpart for that certificate.

(b) The Authority will issue authorisation to operate specified rotorcraft with those classes of rotorcraft-load combinations for which the applicant or certificate holder qualifies under the applicable requirements of this subpart.

11.3.2.5 ROTORCRAFT

(a) An applicant shall have the exclusive use of at least one rotorcraft that:

(1) Is type certificated under, and meets the requirements of, those regulations that prescribe requirements for rotorcraft external-load operations;

(2) Complies with the certification requirements in this subpart that apply to the rotorcraft-load combinations for which authorisation is requested; and

(3) Has a valid certificate of registration and a valid standard or restricted category certificate of airworthiness.

(b) For the purposes of this subsection, a person has exclusive use of a rotorcraft if he or she has sole possession, control, and use of it for flight, as owner, or has a written agreement (including arrangements for the performance of required maintenance) giving him or her that possession, control, and use for at least 6 consecutive months.

(c) For the purposes of this subsection, Class A, B, C, and D are defined in subpart 1.5 of these regulations under rotorcraft-load combinations.

11.3.2.6 PERSONNEL

(a) An applicant shall hold, or shall have available the services of at least one person who holds, a current CPL or ATPL issued by the Authority, with a rating appropriate for the rotorcraft to be used.

(b) An applicant shall designate one pilot, who may be the applicant, as chief pilot for rotorcraft external-load operations.

(c) An applicant may designate qualified pilots as assistant chief pilots to perform the functions of the chief pilot when the chief pilot is not readily available.

(d) The chief pilot and assistant chief pilots shall be acceptable to the Authority, and each shall hold a current CPL or ATPL, with a rating appropriate for the rotorcraft to be used.

(e) The holder of a rotorcraft external-load operator certificate shall report any change in designation of chief pilot or assistant chief pilot immediately to the Authority.

(f) A newly designated chief pilot shall comply with the knowledge and skill requirements of this subpart within 30 days or the operator shall not conduct further operations under the rotorcraft external-load operator certificate, unless otherwise authorised by the Authority.

11.3.2.7 AMENDMENT OF CERTIFICATE

(a) The holder of a rotorcraft external-load operator certificate may apply to the Authority for an amendment of the certificate to add or delete a rotorcraft-load combination authorisation.

(b) The holder of a rotorcraft external-load operator certificate may apply for an amendment to add or delete a rotorcraft-load combination authorisation by submitting to the Authority a new list of rotorcraft, by registration number, with the classes of rotorcraft-load combinations for which authorisation is requested.

11.3.2.8 AVAILABILITY, TRANSFER, AND SURRENDER OF CERTIFICATE

(a) Each holder of a rotorcraft external-load operator certificate shall keep that certificate and a list of authorised rotorcraft at the main base of operations and shall make it available for inspection by the Authority upon request.

(b) Each person conducting a rotorcraft external-load operation shall carry a copy of the rotorcraft external-load operator certificate in each rotorcraft used in the operation.

(c) The holder of a rotorcraft external-load operator certificate shall return the certificate to the Authority:

(1) If the Authority suspends or revokes the certificate; or

(2) If the certificate holder discontinues operations under the certificate and does not resume operations within 2 years.

11.3.3 *OPERATING RULES AND RELATED REQUIREMENTS*

11.3.3.1 OPERATING RULES

(a) No person may conduct a rotorcraft external-load operation without, or contrary to, the Rotorcraft-Load Combination Flight Manual prescribed in 11.3.4.4 of this part.

(b) No person may conduct a rotorcraft external-load operation unless:

(1) The rotorcraft complies with 11.3.2.5 of this part; and

(2) The rotorcraft and rotorcraft-load combination are authorised under the rotorcraft external-load operator certificate.

(c) Before a person may operate a rotorcraft with an external-load configuration that differs substantially from any that person has previously carried with that type of rotorcraft (whether or not the rotorcraft-load combination is of the same class), that person shall conduct, in a manner that shall not endanger persons or property on the surface, those of the following flight operational checks that the Authority determines are appropriate to the rotorcraft-load combination:

(1) Make a determination that the mass of the rotorcraft-load combination and the location of its CG are within approved limits and that the external load is securely fastened and does not interfere with devices provided for its emergency release.

(2) Make an initial lift-off and verify that controllability is satisfactory.

(3) While hovering, verify that directional control is adequate.

(4) Accelerate into forward flight to verify that no attitude (whether of the rotorcraft or of the external load) is encountered in which the rotorcraft is uncontrollable or which is otherwise hazardous.

(5) In forward flight, check for hazardous oscillations of the external load, but if the external load is not visible to the pilot, other crew members or ground personnel may make this check and signal the pilot.

(6) Increase the forward airspeed and determine an operational airspeed at which no hazardous oscillation or hazardous aerodynamic turbulence is encountered.

(d) Notwithstanding the requirements of Part 8, the holder of a rotorcraft external-load operator certificate may conduct rotorcraft external-load operations over congested areas if those operations are conducted without hazard to persons or property on the surface and comply with the following:

(1) The operator shall develop a plan for each complete operation and shall obtain approval for the operation from the Authority; and

Note: The plan shall include an agreement with the appropriate political subdivision that local officials will exclude unauthorised persons from the area in which the operation will be conducted; coordination with ATC, if necessary; and a detailed chart depicting the flight routes and altitudes.

(2) Each flight shall be conducted at an altitude, and on a route, that shall allow a jettisonable external load to be released and the rotorcraft to be landed in an emergency without hazard to persons or property on the surface.

(e) Notwithstanding the requirements of Part 8, and except as provided by paragraph 11.3.4.3(a)(4) of this part, the holder of a rotorcraft external-load operator certificate may conduct external-load operations, including approaches, departures, and load-positioning manoeuvres necessary for the operation, below 500 ft above the surface and closer than 500 ft to persons, vessels, vehicles, and structures, if the operations are conducted without creating a hazard to persons or property on the surface.

(f) No person may conduct rotorcraft external-load operations under IFR unless specifically approved by the Authority. However, under no circumstances may a person be carried as part of the external-load under IFR.

11.3.3.2 CARRIAGE OF PERSONS

(a) No certificate holder may allow a person to be carried during rotorcraft external-load operations unless that person:

(1) Is a flight crew member;

(2) Is a flight crew member trainee;

(3) Performs an essential function in connection with the external-load operation; or

(4) Is necessary to accomplish the work activity directly associated with that operation.

(b) The PIC shall ensure that all persons are briefed before take-off on all pertinent procedures to be followed (including normal, abnormal, and emergency procedures) and equipment to be used during the external-load operation.

11.3.3.3 CREW MEMBER TRAINING, CURRENCY, AND TESTING REQUIREMENTS

(a) No certificate holder may use, nor may any person serve as, a pilot in rotorcraft external-load operations unless that person:

(1) Has successfully demonstrated to the Authority knowledge and skill with respect to the rotorcraft-load combination; and

(2) Has in his or her personal possession a letter of competency or an appropriate logbook entry indicating compliance with paragraph 11.3.3.3(a)(1) of this subsection.

(b) No certificate holder may use, nor may any person serve as, a crew member or other operations personnel in Class D operations unless within the preceding 12 calendar months that person has successfully completed either an approved initial or continuation training programme.

(c) Notwithstanding paragraph 11.3.3.3(b) of this subsection, a person who has performed a rotorcraft external-load operation of the same class and in an aircraft of the same type within the past 12 calendar months need not undergo continuation training.

11.3.4 *AIRWORTHINESS REQUIREMENTS*

11.3.4.1 FLIGHT CHARACTERISTICS REQUIREMENTS

(a) The applicant shall demonstrate to the Authority, by performing the following operational flight checks, as applicable, that the rotorcraft-load combination has satisfactory flight characteristics, unless these operational flight checks have been demonstrated previously and the rotorcraft-load combination flight characteristics were satisfactory. For the purposes of this demonstration, the external-load mass (including the external-load attaching means) is the maximum mass for which authorisation is requested.

(b) CLASS A ROTORCRAFT-LOAD COMBINATIONS. The operational flight check shall consist of at least the following manoeuvres:

(1) Take-off and landing;

(2) Demonstration of adequate directional control while hovering;

(3) Acceleration from a hover; and

(4) Horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested.

(c) CLASS B AND CLASS D ROTORCRAFT-LOAD COMBINATIONS. The operational flight check shall consist of at least the following manoeuvres:

(1) Pickup of the external load;

(2) Demonstration of adequate directional control while hovering;

(3) Acceleration from a hover;

(4) Horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested;

(5) Demonstration of appropriate lifting device operation; and

(6) Maneuvering of the external load into release position and release of the external load, under probable flight operation conditions, by means of each of the quick-release controls installed on the rotorcraft.

(d) CLASS C ROTORCRAFT-LOAD COMBINATIONS. For Class C rotorcraft-load combinations used in wire-stringing, cable-laying, or similar operations, the operational flight check shall consist of the manoeuvres, as applicable, prescribed in paragraph 11.3.4.1(c) of this subsection.

11.3.4.2 STRUCTURES AND DESIGN

(a) EXTERNAL-LOAD ATTACHING MEANS. Each external-load attaching means shall be approved by the Authority.

(b) QUICK-RELEASE DEVICES. Each quick-release device shall be approved by the Authority.

(c) MASS AND CENTRE OF GRAVITY.

(1) MASS. The total mass of the rotorcraft-load combination shall not exceed the total mass approved for the rotorcraft during its type certification.

(2) CG. The location of the CG shall, for all loading conditions, be within the range established for the rotorcraft during its type certification. For Class C rotorcraft-load combinations, the magnitude and direction of the loading force shall be established at those values for which the effective location of the CG remains within its established range.

11.3.4.3 OPERATING LIMITATIONS

(a) In addition to the operating limitations set forth in the manufacturer's approved Rotorcraft Flight Manual, and to any other limitations the Authority may prescribe, the operator shall establish at least the following limitations and shall set them forth in its Rotorcraft-Load Combination Flight Manual for rotorcraft-load combination operations:

(1) The rotorcraft-load combination shall be operated only within the mass and CG limitations established in accordance with this subpart;

(2) The rotorcraft-load combination shall not be operated with an external-load mass exceeding that used in showing compliance with this subpart;

(3) The rotorcraft-load combination shall not be operated at airspeeds greater than those established in accordance with this subpart;

(4) No person may conduct an external-load operation under this part with a rotorcraft type certificated in the restricted category over a densely populated area, in a congested airway, or near a busy aerodrome where passenger transport operations are conducted; and

(5) The rotorcraft-load combination of Class D shall be conducted only in accordance with the following:

(i) The rotorcraft to be used shall be type certificated under transport Category A for the operating mass and shall provide hover capability with one engine inoperative at that operating mass and altitude;

(ii) The rotorcraft shall be equipped to allow direct radio intercommunication among required crew members;

(iii) The personnel lifting device shall be approved by the Authority; and

(iv) The lifting device shall have an emergency release requiring two distinct actions.

11.3.4.4 ROTORCRAFT-LOAD COMBINATION FLIGHT MANUAL

(a) The applicant shall prepare a Rotorcraft-Load Combination Flight Manual and shall submit it for approval by the Authority. The limiting height-speed envelope data need not be listed as operating limitations. The manual shall set forth:

(1) Operating limitations, procedures (normal and emergency), performance, and other information established under this subpart;

(2) The class of rotorcraft-load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with this subpart; and

(3) In the information section of the Rotorcraft-Load Combination Flight Manual:

(i) Information on any peculiarities discovered when operating particular rotorcraft-load combinations;

(ii) Precautionary advice regarding static electricity discharges for Class B, Class C, and Class D rotorcraft-load combinations; and

(iii) Any other information essential for safe operation with external loads.

11.3.4.5 MARKINGS AND PLACARDS

(a) The following markings and placards shall be displayed conspicuously and shall be such that they cannot be easily erased, disfigured, or obscured:

(1) A placard (displayed in the flight deck or cabin) stating the class of rotorcraft-load combination and the occupancy limitation for which the rotorcraft has been approved; and

(2) A placard, marking, or instruction (displayed next to the external-load attaching means) stating the maximum external load approved.

11.4 RESERVED

11.5 BANNER TOWING

11.5.1.1 APPLICABILITY

(a) This subpart applies to those operations involving towing aircraft banners or other signs, lit or unlit.

11.5.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

(c) A helicopter operating under the requirements of 11.3 of this part may tow a banner using an external-load attaching means without a certificate of waiver or equivalent authorisation only if the operator has at least a Class B authorisation on the operating certificate.

11.5.1.3 AIRCRAFT REQUIREMENTS

(a) No person may operate an aircraft that is towing a banner unless the aircraft is equipped with a tow hook and release control system that meet the applicable standards of airworthiness.

(b) No person may operate a helicopter that is towing a banner unless the helicopter has a means to prevent the banner from becoming entangled in the helicopter's tail rotor during all phases of flight, including autorotations.

Note: The only way to prevent the banner from tangling in the tail rotor during autorotation may be to jettison the banner.

11.5.1.4 EXPERIENCE AND TRAINING REQUIREMENTS

(a) For non-revenue flights, the pilot of the tow aircraft shall hold at least a valid PPL and shall have a minimum of 200 hours PIC time.

(b) When banner-towing operations are conducted for compensation or hire, the pilot shall have at least a CPL (instrument rating not required) and at least a valid second-class medical certificate.

(c) All pilots engaged in banner-towing operations shall demonstrate competence to the Authority by performing at least one pickup and drop of the maximum number of letters (panels) to be used by the certificate holder.

Note: This demonstration should be observed from the ground to allow the inspector to evaluate the competence of any essential ground personnel as well as the flight operation.

11.5.1.5 OPERATING RULES

(a) All banner-towing operations shall be conducted only:

(1) In VFR weather conditions as described in Part 8 of these regulations; and

(2) Between the hours of official sunrise and official sunset.

(b) No person may conduct banner-towing operations:

(1) Over congested areas or open-air assemblies of persons lower than 1 000 ft; and

(2) Elsewhere lower than the minimum safe altitude requirements of Part 8 of these regulations.

(c) Helicopters may be operated at less than the minimums prescribed in paragraph 11.5.1.5(b) of this subsection if the operation is conducted without hazard to persons or property on the surface.

(d) The certificate holder shall obtain the aerodrome manager's approval to conduct banner-towing operations.

(e) If banner-towing operations take place at an aerodrome with a control tower, the certificate holder shall inform that control tower of the time of the banner-towing operation.

(f) The certificate holder shall notify the appropriate aerodrome officials in advance when banner-towing operations will be in close proximity to an uncontrolled aerodrome.

(g) Only essential crew members shall be carried when conducting banner-towing operations.

(h) When banner-towing operations are conducted over congested areas, the pilot shall exercise due care, so that an emergency release of the banner and/or tow rope shall not cause undue hazard to persons or property on the surface.

(i) Each pilot shall drop the tow rope in a predesignated area at least 500 ft from persons, buildings, parked automobiles, and aircraft.

Note: If the tow plane lands with the rope attached, due care shall be exercised to avoid trailing the rope and endangering other aircraft in the air or persons, property, or aircraft on the surface.

(j) Each pilot conducting banner-towing operations shall carry on board the aircraft a current copy of the certificate of waiver or equivalent authorisation allowing banner-towing operations.

11.6 MOTION PICTURE AND TELEVISION FILMING OPERATIONS

11.6.1.1 APPLICABILITY

(a) This subpart applies to those operations involving motion picture and television filming, appearance in-flight in motion pictures, and airborne direction or production of such filming when those operations are conducted as part of a business enterprise or for compensation or hire.

(b) For purposes of this subpart, “motion picture” shall include film, videos, and live broadcast in any format and the preparation and rehearsal for those operations.

11.6.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.6.1.3 AIRCRAFT REQUIREMENT

(a) In order to be used in motion picture and television filming operations, an aircraft in the experimental category shall have a certificate of airworthiness issued to it for the purpose of exhibition.

11.6.1.4 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct motion picture and television filming operations unless that pilot has:

(1) A CPL with ratings appropriate to the category, class, and type of aircraft to be used under the terms of the authorisation;

(2) At least 500 hours as PIC, including:

(i) At least 20 hours as PIC in the aircraft type;

(ii) A minimum of 100 hours in the category and class of aircraft to be used;

(iii) A minimum of 5 hours as PIC in the make and model of aircraft to be used under the authorisation; and

(3) If the pilot intends to perform acrobatics below 1 500 ft AGL, the pilot shall hold a Statement of Acrobatic Competency for the operations to be performed.

11.6.1.5 OPERATING RULES

(a) Each operator shall conduct motion picture and television filming operations so as not to endanger persons or property on the surface or aircraft in flight.

(b) Each operator shall obtain a certificate of waiver or equivalent authorisation from the Authority if filming sequences require an aircraft to be flown:

(1) In acrobatic flight below 1 500 ft AGL;

(2) Over a congested area;

(3) In controlled airspace; or

(4) In other instances, where a departure from the requirements of Part 8 of these requirements is needed.

(c) The holder of the certificate of waiver or equivalent authorisation shall provide a schedule of events that lists the:

(1) Identification of the aircraft; and

(2) Performers in the sequence of their appearance.

(d) Any manoeuvres added or time changes made to the schedule of events shall be approved by the Authority.

(e) The holder of the certificate of waiver or equivalent authorisation shall develop, have approved by the Authority, and comply with a Motion Picture and Television Filming Operations Manual.

(f) When conducting any motion picture or television filming operation requiring a certificate of waiver or equivalent authorisation, the holder of the certificate or authorisation shall ensure that all reasonable efforts are made to confine spectators to designated areas. If reasonable efforts have been taken and unauthorised persons or vehicles enter the airspace where manoeuvres are being performed during the filming production event, efforts shall be made to remove those persons or vehicles.

11.6.1.6 CONTENTS OF A MOTION PICTURE AND TELEVISION OPERATIONS MANUAL

(a) Each Motion Picture and Television Operations Manual shall contain at least the following:

(1) COMPANY ORGANISATION.

(i) The business name, address, and telephone number of the applicant;

(ii) A list of pilots involved in the filming production, including their pilot licence numbers, grade and class, and date of medical certification; and

(iii) A list of aircraft by make and model.

(2) DISTRIBUTION AND REVISION. Procedures for revising the manual to ensure that it is kept current and procedures for the distribution of the manual to concerned personnel.

(3) PERSONS AUTHORISED. Procedures for ensuring that no persons, except those persons consenting to be involved and necessary for the filming production, are allowed within 150 m (500 ft) of the filming production area.

(4) AREA OF OPERATIONS. The area that shall be used during the term of the authorisation.

(5) PLAN OF ACTIVITIES. Procedures for the submission, within 3 days of scheduled filming, of a written plan of activities to the Authority, including at least the following:

(i) Dates and times for all flights;

(ii) The name and phone number of the person responsible for the filming production event;

(iii) The make and model of aircraft to be used and the type of certificate of airworthiness, including category;

(iv) The names of pilots involved in the filming production event;

(v) A statement that permission to conduct the filming production event has been obtained from property owners and/or local officials;

(vi) The signature of the certificate holder or a designated representative; and

(vii) A general outline, or summary, of the production schedule, to include maps or diagrams of the specific filming location, if necessary.

(6) PERMISSION TO OPERATE. Requirements and procedures for obtaining permission from property owners and/or local officials (e.g., police, fire department), as appropriate for the conduct of all filming productions when using the certificate of waiver or equivalent authorisation.

(7) SECURITY. The method of security that shall be used to exclude from the location all persons not directly involved with the operation.

Note: This shall include the requirement used to stop activities when unauthorised persons, vehicles, and/or aircraft enter the operations area, or for any other reason, in the interest of safety.

(8) BRIEFING OF PILOT/PRODUCTION PERSONNEL. Procedures for briefing personnel on the risks involved and on emergency procedures and safeguards to be followed during the filming production event.

(9) CERTIFICATION/AIRWORTHINESS. Procedures for ensuring that required inspections will be conducted.

(10) COMMUNICATIONS. Procedures for communicating with all participants during the actual operation and filming.

Note: The applicant may use oral, visual, and/or radio communications, as long as participants are continuously apprised of the current status of the operation.

(11) ACCIDENT AND INCIDENT NOTIFICATION. Procedures for receiving notification of and reporting accidents and incidents.

11.7 SIGHTSEEING FLIGHTS

11.7.1.1 APPLICABILITY

(a) This subpart applies to those operations involving the carriage of persons for viewing natural formations, manmade objects, or wildlife on the ground when:

(1) Those operations are conducted as part of a business enterprise or for compensation or hire;

(2) The flight is unquestionably advertised as “sightseeing”;

(3) The flight returns to the aerodrome of departure without having landed at any other aerodrome;

(4) The flight is conducted within a 25 nautical-mile radius of the departure aerodrome; and

(5) The certificated passenger capacity of the aircraft does not exceed nine passengers.

Note: Any other passenger-carrying flight for remuneration, hire, or valuable consideration shall be conducted under an air operator certificate in accordance with Part 9 of these regulations.

11.7.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.7.1.3 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct sightseeing operations unless that pilot has:

(1) At least a CPL with ratings appropriate to the category, class, and type of aircraft to be used under the terms of the certificate of waiver or equivalent authorisation;

(2) At least 500 hours as PIC, including:

(i) At least 20 hours as PIC in the aircraft type;

(ii) A minimum of 100 hours in the category and class of aircraft to be used; and

(iii) A minimum of 5 hours as PIC in the make and model of aircraft to be used under the certificate of waiver or equivalent authorisation.

11.7.1.4 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface or aircraft in flight.

(b) All sightseeing operations shall be conducted only:

(1) In VFR weather conditions; and

(2) Between the hours of official sunrise and official sunset.

(c) No person may conduct sightseeing operations:

(1) Over congested areas or open-air assemblies of persons lower than 1 000 ft; and

(2) Elsewhere lower than the minimum safe altitude requirements of Part 8 of these regulations.

(d) In addition to any operational or equipment requirements of this subpart for manned free balloon operation, the following equipment is required for specific types of manned free balloon operation:

(1) For all balloons, an altimeter and a rate-of-climb indicator;

(2) For hot air balloons:

(i) If fuel cells are used, a means (e.g., fuel quantity gauge) to indicate to the crew the quantity of fuel in each cell during flight, calibrated in appropriate units or in per cent of fuel cell capacity; and

(ii) An envelope temperature indicator; and.

(3) For captive gas balloons, a compass.

(e) In addition to any requirements of this subpart for a specific type of tethered or moored balloon operation, the requirements of 8.8 of these regulations apply.

(f) The requirements of Part 8 of these regulations apply to sightseeing operations described by this subpart.

11.8 FISH SPOTTING

11.8.1.1 APPLICABILITY

(a) This subpart applies to those operations involving locating, tracking, and reporting on the location of fish and fish schools, when those operations are conducted as part of a business enterprise or for compensation or hire.

11.8.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.8.1.3 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct fish spotting operations unless that pilot has:

(1) At least a CPL with ratings appropriate to the category and class of aircraft to be used under the terms of the certificate of waiver or equivalent authorisation;

(2) At least 500 hours as PIC, including:

(i) A minimum of 100 hours in the category and class of aircraft to be used;

(ii) A minimum of 25 hours as PIC the category and class of aircraft to be used; and

(iii) A minimum of 5 hours as PIC in the make and model of aircraft to be used under the certificate of waiver or equivalent authorisation.

11.8.1.4 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface or aircraft in flight.

(b) Minimum cloud clearance requirements and minimum altitude requirements of Part 8 do not apply to those persons to whom the Authority has specifically approved different minimums as a part of a certificate of waiver or equivalent authorisation under 11.8 of this part.

11.9 NEWS MEDIA AND TRAFFIC REPORTING

11.9.1.1 APPLICABILITY

(a) This subpart applies to those operations involving observation of, and reporting on, news media events and/or vehicular traffic conditions on the highways and streets, when conducted by aircraft or airmen, or both.

11.9.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.9.1.3 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct news media or traffic reporting operations unless that pilot has:

(1) At least a CPL with ratings appropriate to the category, class, and type of aircraft to be used under the terms of the certificate of waiver or equivalent authorisation;

(2) At least 500 hours as PIC, including:

(i) At least 20 hours as PIC in the aircraft type;

(ii) A minimum of 100 hours in the category and class of aircraft to be used; and

(iii) A minimum of 5 hours in the make and model of aircraft to be used under the certificate of waiver or equivalent authorisation.

11.9.1.4 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface nor aircraft in flight.

(b) Minimum cloud clearance requirements and minimum altitude requirements of Part 8 of these regulations do not apply to those persons to whom the Authority has specifically approved different minimums as a part of a certificate of waiver or equivalent authorisation under 11.9 of this part.

11.10 AERIAL PHOTOGRAPHY

11.10.1.1 APPLICABILITY

(g) Aerial photography is the taking of photographs from an aircraft or other airborne platforms for aerial photography include fixed-wing aircraft, helicopters, drones, or using action cameras while skydiving.

(h) This subpart also applies to those operations involving location determination, tracking and reporting, when those operations are conducted as part of a business enterprise or for compensation or hire.

11.10.1.2 CERTIFICATE OR AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations covered by this subpart to hold a certificate or equivalent authorisation.

(b) The Authority will issue a certificate or authorisation to each applicant who qualifies for it under the provisions of this subpart.

11.10.1.3 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface nor aircraft in flight.

(b) Minimum cloud clearance requirements and minimum altitude requirements of Part 8 do not apply to those persons to whom the Authority has specifically approved different minimums as a part of an authorisation under this subpart.

11.10.1.4 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot may conduct aerial photography operations unless he or she has:

(1) At least a commercial licence with ratings appropriate to the category and class aircraft to be used under the terms of the waiver;

(2) At least 300 hours as PIC;

(3) A minimum of 100 hours in the category and class of aircraft to be used.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 11 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 11.1.1.1 reflects a standard required by 11.1.1.1 of this part.

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PART 11 – IMPLEMENTING STANDARDS

IS 11.1.1.1(F)

Aerial Work Operator's Application Form – Remotely Piloted Aircraft is obtainable at the Authority.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 1 – GENERAL POLICIES, PROCEDURES, AND DEFINITIONS

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CCAR PART 1 – GENERAL POLICIES, PROCEDURES, AND DEFINITIONS

1.1 GENERAL POLICIES

1.1.1.1 RULES OF CONSTRUCTION

(a) Throughout these regulations the following word usage applies:

(1) *Shall* indicates a mandatory requirement.

(2) *"No person may ..."* or *"a person may not ..."* means that no person is required, authorised, or permitted to perform an act described in a regulation.

(3) *May* indicates that discretion can be used when performing an act described in a regulation.

(4) *Will* indicates an action incumbent upon the Authority.

(5) *Includes* means "includes but is not limited to."

(6) *Approved* means the Authority has reviewed the method, procedure, or policy in question and has issued a formal written approval.

(7) *Acceptable* means the Authority has reviewed the method, procedure, or policy in question and has neither objected to nor approved its proposed use or implementation.

(8) *Prescribed* means the Authority has issued written policy or methodology that imposes either a mandatory requirement, if the written policy or methodology states "shall," or a discretionary requirement, if the written policy or methodology states "may."

1.1.1.2 APPLICABILITY

(a) These regulations shall apply to all persons operating or maintaining the following:

(1) Curaçao-registered aircraft;

(2) Aircraft registered in another Contracting State that are operated by a person licensed by Curaçao and maintained in accordance with the standards of the aircraft's State of Registry, wherever that maintenance is performed; or

(3) Aircraft of other Contracting States operating in Curaçao.

(b) Regulations addressing persons certificated under any part of these regulations apply also to any person who engages in an operation governed by any part of these regulations without the appropriate certificate and associated operations specifications, licence, or similar document required as part of the certification.

(c) Regulations addressing general matters establish minimum standards for all aircraft operated in Curaçao. Specific standards applicable to the holder of a certificate shall apply if they conflict with a more general regulation.

(d) Foreign air operators who conduct commercial air transport into, from, or within Curaçao shall be governed by the special limitations and specific approvals of the operations specifications issued by the Authority and by those requirements in CCAR Parts 7, 8, and 10 of these regulations that specifically address commercial air transport. Regulations that address AOC holders apply only to operators certificated by Curaçao

1.1.1.3 ORGANISATION OF REGULATIONS

(a) These regulations are subdivided into five hierarchical categories:

(1) *Part* refers to the primary subject area.

(2) *Subpart* refers to any subdivision of a part.

(3) *Section* refers to any subdivision of a subpart.

(4) *Subsection* refers to the title of a regulation and can be a subdivision of a subpart or section.

(5) *Paragraph* refers to the text describing the regulations. All paragraphs are outlined alphanumerically in the following hierarchical order: (a), (1), (i), (A), 1.

(b) Abbreviations used within each part are defined at the beginning of those parts.

(c) Notes appear in subsections to provide exceptions, explanations, and examples to individual requirements.

(d) Regulations may refer to IS, which provide additional detailed requirements that support the purpose of the subsection and, unless otherwise indicated, have the legal force and effect of the referring regulation. The rules of construction specified in 1.1.1.1 of this part shall apply to each IS.

1.1.1.4 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **2D –** two-dimensional

(2) **3D –** three-dimensional

(3) **AAT –** airworthiness approval tag

(4) **AD –** Airworthiness Directive

(5) **ADS –** automatic dependent surveillance

(6) **ADS-B –** automatic dependent surveillance – broadcast

(7) **ADS-C –** automatic dependent surveillance – contract

(8) **AIP –** Aeronautical Information Publication

(9) **AMM –** Aircraft Maintenance Manual

(10) **AMO –** approved maintenance organisation

(11) **AMT –** aviation maintenance technician

(12) **AOC –** air operator certificate

(13) **AOM –** Aircraft Operating Manual

(14) **APV –** approach procedure with vertical guidance

(15) **ATC –** air traffic control

(16) **ATO –** approved training organisation

(17) **ATS –** air traffic service

(18) **C2 –** command and control

(19) **C2CSP –** C2 Link communication service provider

(20) **C2 Link –** command and control link

(21) **CAT I –** Category I

(22) **CAT II –** Category II

(23) **CAT III –** Category III

(24) **CDFA –** continuous descent final approach

(25) **CFIT –** controlled flight into terrain

(26) **CP –** co-pilot

(27) **CPL –** commercial pilot licence

(28) **DA –** decision altitude

(29) **DA/H –** decision altitude/height

(30) **DCA –** Director General of Curaçao Civil Aviation Authority

(31) **DH –** decision height

(32) **EDTO –** extended diversion time operations

(33) **EFB –** electronic flight bag

(34) **ELT –** emergency locator transmitter

(35) **EVS –** enhanced vision system

(36) **FAS –** final approach segment

(37) **FATO –** final approach and take-off area

(38) **FSTD –** flight simulation training device

(39) **GLS –** global landing system

(40) **IAP –** instrument approach procedure

(41) **ICAO –** International Civil Aviation Organization

(42) **IFR –** instrument flight rules

(43) **ILS –** instrument landing system

(44) **IMC –** instrument meteorological conditions

(45) **IS –** Implementing Standards

(46) **LDP –** landing decision point

(47) **MCM –** Maintenance Control Manual

(48) **MDA –** minimum descent altitude

(49) **MDA/H –** minimum descent altitude/height

(50) **MDH –** minimum descent height

(51) **MEL –** minimum equipment list

(52) **MLS –** microwave landing system

(53) **MMEL –** master minimum equipment list

(54) **MSL –** mean sea level

(55) **NM –** nautical mile

(56) **NOTAM –** Notice to Airmen

(57) **NPA –** non-precision approach

(58) **OCA –** obstacle clearance altitude

(59) **OCH –** obstacle clearance height

(60) **OM –** Operations Manual

(61) **PA –** precision approach

(62) **PBC –** performance-based communication

(63) **PBN –** performance-based navigation

(64) **PBS –** performance-based surveillance

(65) **PF** – pilot flying

(66) **PIC –** pilot-in-command

(67) **PM** – pilot monitoring

(68) **PPL(A) –** private pilot licence – aeroplane

(69) **PSR –** primary surveillance radar

(70) **QoS –** quality of service

(71) **QoSD –** quality of service delivered

(72) **QoSR –** quality of service required

(73) **RCP –** required communication performance

(74) **RNAV –** area navigation

(75) **RNP –** required navigation performance

(76) **RPA –** remotely piloted aircraft

(77) **RPAS –** remotely piloted aircraft system

(78) **RPS –** remote pilot station

(79) **RSP –** required surveillance performance

(80) **RVR –** runway visual range

(81) **SARPs –** Standards and Recommended Practices

(82) **SBAS –** satellite-based augmentation system

(83) **SMS –** safety management system

(84) **SNOWTAM –** Snow Notice to Airmen

(85) **SSP –** State safety programme

(86) **SSR –** secondary surveillance radar

(87) **SVS –** synthetic vision system

(88) **TC –** type certificate

(89) **TDP –** take-off decision point

(90) **TEM –** threat and error management

(91) **TSO –** technical standard order

(92) **UA –** unmanned aircraft

(93) **UAS –** unmanned aircraft system

(94) **ULD –** unit load device

(95) **UN –** United Nations

(96) **UPU –** Universal Postal Union

(97) **USD –** U.S. dollars

(98) **UTC –** coordinated universal time

(99) **VFR –** visual flight rules

(100) **VMC –** visual meteorological conditions

(101) **VNAV –** vertical navigation

1.2 GENERAL ADMINISTRATIVE RULES GOVERNING TESTING, LICENCES, AND CERTIFICATES

1.2.1.1 DISPLAY AND INSPECTION OF LICENCES AND CERTIFICATES

(a) PILOT LICENCE.

(1) To act as a pilot of a civil aircraft of Curaçao registry, a pilot shall be in physical possession of, or shall have readily accessible in the aircraft, the pilot licence or a special purpose authorisation issued under these regulations.

(2) To act as a pilot of a civil aircraft of foreign registry within Curaçao, a pilot shall be the holder of a valid pilot licence and shall be in physical possession of the pilot licence or shall have the pilot licence readily accessible in the aircraft.

(b) FLIGHT INSTRUCTOR LICENCE. A person who holds a flight instructor licence shall have that licence, or other documentation acceptable to the Authority, in that person's physical possession or readily accessible in the aircraft or at the worksite when exercising the privileges of that licence.

(c) OTHER AIRMAN LICENCE. A person required by any part of these regulations to have an airman licence shall have that licence in that person's physical possession or readily accessible in the aircraft or at the worksite when exercising the privileges of that licence.

(d) MEDICAL CERTIFICATE. A person required by any part of these regulations to have a current medical certificate shall have that certificate in that person's physical possession or readily accessible in the aircraft or at the worksite when exercising the privileges of that certificate.

(e) ATO CERTIFICATE. Each holder of an ATO certificate shall display that certificate in the school in a place that is normally accessible to the public and is not obscured.

(f) CERTIFICATE OF AIRCRAFT REGISTRATION. Each owner or operator of an aircraft shall carry the certificate of aircraft registration on the aircraft and shall have that certificate available for inspection.

(g) CERTIFICATE OF AIRWORTHINESS. Each owner or operator of an aircraft shall display the certificate of airworthiness for that aircraft in the cabin of the aircraft or at the entrance to the aircraft flight deck.

(h) AMO CERTIFICATE. Each holder of an AMO certificate shall prominently display that certificate in a place that is accessible to the public in the principal place of business of the AMO.

(i) AERIAL WORK CERTIFICATE. Each owner or operator of an aircraft engaged in aerial work shall carry the aerial work certificate or a copy of that certificate on the aircraft and shall have the certificate available for inspection. When the Authority issues equivalent authorisations in lieu of a certificate to authorise aerial work, those authorisations, or a copy thereof, shall be on the aircraft and available for inspection.

(j) AOC. Each owner or operator of an aircraft engaged in commercial air transport shall carry the AOC or a copy of the AOC on the aircraft and shall have that certificate available for inspection.

(k) INSPECTION OF LICENCE, CERTIFICATE, OR AUTHORISATION. Each person who holds a licence, a medical certificate, or an authorisation required by these regulations shall present it for inspection upon a request from:

(1) The Authority; or

(2) Any national or local law enforcement officer.

1.2.1.2 CHANGE OF NAME

(a) A holder of a licence or certificate issued under these regulations may apply to change the name on that licence or certificate. The holder shall include with any such request:

(1) The current licence or certificate; and

(2) A copy of the marriage licence, court order, or other document verifying the name change.

(b) The Authority will return to the licence or certificate holder the documents specified in paragraph 1.2.1.2(a) of this subsection.

1.2.1.3 CHANGE OF ADDRESS

(a) The holder of a licence or certificate who has made a change in permanent mailing address shall not, after 30 days from the date of that change, exercise the privileges of the licence or certificate unless the holder has notified the Authority in writing of the new permanent mailing address, or the current residential address if the permanent mailing address includes a post office box number.

1.2.1.4 REPLACEMENT OF A LOST OR DESTROYED AIRMAN LICENCE, MEDICAL CERTIFICATE, OR KNOWLEDGE TEST REPORT

(a) An applicant or holder of an airman licence or a medical certificate who has lost or destroyed one of the following documents issued under these regulations shall request a replacement in writing from the office designated by the Authority:

(1) Airman licence;

(2) Medical certificate; or

(3) Knowledge test report.

(b) The airman or applicant shall state in the request letter:

(1) The name of the airman or applicant;

(2) The permanent mailing address of the airman or applicant or, if the permanent mailing address includes a post office box number, that person's current residential address;

(3) The Social Security number or equivalent national identification number of the airman or applicant;

(4) The date and place of birth of the airman or applicant; and

(5) Any available information regarding the:

(i) Grade, number, and date of issuance of the airman licence, ratings, or medical certificate, if applicable;

(ii) Date of the medical examination, if applicable; and

(iii) Date the knowledge test was taken, if applicable.

(c) After receiving a copy from the Authority confirming that the lost or destroyed document was issued, the airman shall carry the copy in lieu of the lost or destroyed document for up to 60 days pending the airman's receipt of a duplicate licence or medical certificate.

1.2.1.5 FALSIFICATION, REPRODUCTION, OR ALTERATION OF APPLICATIONS, LICENCES, CERTIFICATES, LOGBOOKS, REPORTS, OR RECORDS

(a) No person shall make or cause to be made concerning any licence, certificate, rating, qualification, or authorisation, or application for or duplicate thereof, issued under these regulations:

(1) Any fraudulent or intentionally false statement;

(2) Any fraudulent or intentionally false entry in any logbook, record, or report that these regulations require or use to show compliance with any requirement of these regulations;

(3) Any reproduction for fraudulent purpose; or

(4) Any alteration.

(b) Any person who commits any act prohibited under paragraph 1.2.1.5(a) of this subsection shall have the airman licence, rating, certificate, qualification, or authorisation revoked or suspended.

1.2.1.6 VOLUNTARY SURRENDER OR EXCHANGE OF LICENCE

(a) The holder of a licence issued under these regulations may voluntarily surrender it for:

(1) Cancellation;

(2) Issuance of a lower grade licence; or

(3) Another licence with specific ratings deleted.

(b) A licence holder requesting voluntary surrender of a licence shall include the following signed statement or its equivalent: “This request is made for my own reasons, with full knowledge that my [INSERT NAME OF LICENCE OR RATING, AS APPROPRIATE] may not be reissued to me unless I again pass the tests prescribed for its issuance.”

1.2.1.7 PROHIBITION ON PERFORMANCE DURING MEDICAL DEFICIENCY

(a) A person who holds a current medical certificate issued under these regulations shall not act in a capacity for which that medical certificate is required while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the required medical certificate; or

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the required medical certificate.

1.2.1.8 PSYCHOACTIVE SUBSTANCE TESTING AND REPORTING

(a) Any person who performs any function requiring a licence, certificate, rating, qualification, or authorisation prescribed by these regulations directly or by contract for a certificate holder under these regulations may be tested for usage of psychoactive substances.

(b) Any person subject to these regulations who refuses to submit to a test to indicate the percentage by weight of alcohol in the blood, when requested by a law enforcement officer or the Authority, or refuses to furnish or to authorise the release of the test results requested by the Authority may:

(1) Be denied any licence, certificate, rating, qualification, or authorisation issued under these regulations for a period of up to 1 year after the date of that refusal; or

(2) Have the licence, certificate, rating, qualification, or authorisation issued under these regulations suspended or revoked.

(c) Any person subject to these regulations who refuses to submit to a test to indicate the presence of narcotic drugs, marijuana, or depressant or stimulant drugs or substances in the body, when requested by a law enforcement officer or the Authority, or refuses to furnish or to authorise the release of the test results requested by the Authority may:

(1) Be denied any licence, certificate, rating, qualification, or authorisation issued under these regulations for a period of up to 1 year after the date of that refusal; or

(2) Have the licence, certificate, rating, qualification, or authorisation issued under these regulations suspended or revoked.

(d) Any person subject to these regulations who is convicted for the violation of any local or national statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances, may:

(1) Be denied any licence, certificate, rating, qualification, or authorisation issued under these regulations for a period of up to 1 year after the date of final conviction; or

(2) Have the licence, certificate, rating, qualification, or authorisation issued under these regulations suspended or revoked.

(e) A list of chemicals that are considered psychoactive substances is contained in IS 1.2.1.8.

1.3 INVESTIGATIVE AND ENFORCEMENT PROCEDURES

1.3.1 INVESTIGATIVE PROCEDURES

1.3.1.1 REPORTS OF VIOLATIONS

(a) Any person who knows of a violation of the Luchtvaartlandsverordening[1] (the Civil Aviation Act /the Act), as amended, or any regulation or order issued thereunder, shall report it to the Authority.

(b) Each report made under this section, together with any other information the Authority may have that is relevant to the matter reported, will be reviewed by the Authority to determine the nature and type of any additional investigation or enforcement action the Authority will take.

1.3.1.2 INVESTIGATIONS – GENERAL

Under the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, the DCA may conduct investigations; hold hearings; issue poenas; require the production of relevant documents, records, and property; and take evidence and depositions.

1.3.1.3 FORMAL COMPLAINTS

Complaints submitted to the Authority under paragraph 1.3.1.1(a) of this part shall be submitted in a form and manner prescribed by the Authority.

[1] P.B. 2019, no. 4 GT

1.3.2 ADMINISTRATIVE ACTION

(a) If the Authority determines that a violation or an alleged violation of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any regulation or order issued thereunder, is appropriate for administrative action, the Authority may take administrative action by one of the following:

(1) A *Warning Notice*, which recites available facts and information about the incident or condition and indicates that it may have been a violation; or

(2) A *Letter of Correction*, which confirms the Authority's decision in the matter and states the necessary corrective action the alleged violator has taken or has agreed to take. If the agreed corrective action is not fully completed, formal licence or certificate action may be taken in accordance with 1.3.3.3 of this part.

(b) An administrative action under this section does not constitute a formal adjudication of the matter.

1.3.3 LEGAL ENFORCEMENT ACTIONS

Note: Table 2, Sanctions, in IS 1.3.3 contains a sanctions guidance. This guidance conforms to the penalty provisions in Luchtvaartlandsverordening (the Civil Aviation Act), as amended.

1.3.3.1 CIVIL PENALTIES

(a) Any person, other than a person conducting an operation in commercial air transport, who violates any provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any order, rule, directive, or regulation issued thereunder, shall be subject to a civil penalty imposed by the Authority.

(b) Any person conducting an operation in commercial air transport who violates any provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any order, rule, directive, or regulation issued thereunder, shall be subject to a civil penalty imposed by the Authority.

(c) Civil penalties may be assessed instead of or in addition to any licence or certificate action described in 1.3.3.3 of this part.

(d) Civil penalties and licence and certificate actions are prescribed in IS 1.3.3.

1.3.3.2 CRIMINAL PENALTIES

(a) The Luchtvaartlandsverordening (the Civil Aviation Act), as amended, establishes criminal penalties for any person who knowingly and willfully violates specified provisions of that Act or any order, rule, directive, or regulation thereunder.

(b) If the Authority becomes aware of a possible violation of any criminal provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, that is under the jurisdiction of another Curaçao government agency, the Authority will immediately report it to the appropriate Curaçao government agency in a manner prescribed by both government agencies.

(c) Criminal penalties and licence and certificate actions are prescribed in IS 1.3.3.

1.3.3.3 LICENCE AND CERTIFICATE ACTIONS

(a) SUSPENSION OR REVOCATION OF A LICENCE OR CERTIFICATE FOR VIOLATION OF THE LUCHTVAARTLANDSVERORDENING (the CIVIL AVIATION ACT), AS AMENDED, OR ANY REGULATION OR ORDER ISSUED THEREUNDER.

(1) The holder of any licence or certificate issued under these regulations who violates any provision of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any order, rule, directive, or regulation issued thereunder, is subject to suspension or revocation of that licence or certificate., in accordance with the provisions of . the Civil Aviation Act, as amended, or any regulation issued thereunder.

(2) Any licence or certificate issued under these regulations ceases to be effective if it is surrendered, suspended, or revoked.

(3) The holder of any licence or certificate issued under these regulations whose licence or certificate has been suspended, surrendered, or revoked shall return that licence or certificate to the Authority when requested by the Authority.

(b) REINSPECTION OR REEXAMINATION OF A LICENCE OR CERTIFICATE FOR LACK OF QUALIFICATION.

(1) Under article 14.2 of the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, the Authority may reinspect or reexamine any civil aircraft or aeronautical product, air operator, ATO, AMO, or airman holding a licence or certificate issued under the Act as amended, or any order, rule, directive, or regulation issued thereunder.

(2) If, as a result of that reinspection or reexamination or any other investigation made by the Authority, the Authority determines that a lack of qualification exists, and that safety in air transport and the public interest requires it, the Authority may issue an order to amend, modify, suspend, or revoke the licence or certificate in whole or in part.

(3) Procedures for the reexamination of personnel licences or certificates are set forth in CCAR Part 2 of these regulations.

(c) NOTICE AND OPPORTUNITY TO BE HEARD. Unless safety in air transport requires immediate action, prior to a final determination under 1.3.3 of this part, the Authority will provide the person with an opportunity to be heard as to why such licence or certificate should not be amended, modified, suspended, or revoked.

(d) REAPPLICATION AFTER REVOCATION. Unless otherwise authorised by the Authority, a person whose licence or certificate has been revoked shall not apply for any licence or certificate for 1 year after the date of revocation.

(e) REAPPLICATION AFTER SUSPENSION. Unless otherwise authorised by the Authority, a person whose licence or certificate has been suspended shall not apply for any licence or certificate during the period of suspension.

1.3.3.4 SEIZURE OF AIRCRAFT

(a) As provided by the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, an aircraft that is involved in a violation for which a civil penalty has been imposed or may be imposed on its owner or operator may be subject to seizure by the Authority in accordance with enforcement procedures set forth by the Authority.

Note: The seizure of aircraft is typically done only in instances where the violation is particularly egregious (e.g., use of the aircraft in a continuing violation).

1.4 EXEMPTIONS

1.4.1 APPLICABILITY

(a) This subpart prescribes procedures for the application, review, and denial or issuance of exemptions from the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, or any regulation or order issued thereunder.

1.4.2 GENERAL

(a) Any interested person may apply to the Authority for an exemption from these regulations, if the article of these regulations allows for this.

(b) Only the Authority may issue exemptions, and no person may take or cause to be taken any action not in compliance with these regulations unless the Authority has issued an applicable exemption to that person.

(c) Exemptions will be granted by the Authority only in extraordinary circumstances.

1.4.3 APPLICATION FOR EXEMPTION

(a) Applications for exemptions shall be submitted at least 60 days in advance of the proposed effective date, to obtain timely review.

(b) The application shall contain the applicant's:

(1) Name;

(2) Street address and mailing address, if different;

(3) Telephone number;

(4) Fax number, if available;

(5) Email address, if available; and

(6) Agent for all purposes related to the application.

(c) In addition to paragraph 1.4.3(b) of this subsection, the application shall contain:

(1) A citation of the specific requirement from which the applicant seeks relief. A risk assessment or analysis;

(2) A description of the type of operations to be conducted under the proposed exemption;

(3) The proposed duration of the exemption;

(4) An explanation of how the exemption would be in the public interest, that is, how it would benefit the public as a whole;

(5) A detailed description of the alternative means by which the applicant will ensure a level of safety equivalent to that established by the regulation in question;

(6) A review and discussion of any known safety concerns with the regulation, including information about any relevant accidents or incidents of which the applicant is aware; and

(7) If the applicant seeks to operate under the proposed exemption outside Curaçao airspace, an indication of whether the exemption would contravene any provision of the ICAO SARPs.

(d) If the applicant is not a citizen or legal resident of Curaçao, the application shall specify a Curaçao agent for service.

(e) If the applicant seeks emergency processing, the application shall contain supporting facts and reasons that the application was not timely filed and the reasons it is an emergency. The Authority may deny an application if the Authority finds that the applicant has not justified the failure to apply in a timely fashion.

1.4.4 REVIEW, PUBLICATION, NOTIFICATION, AND EXTENSION OF THE EXEMPTION

1.4.4.1 INITIAL REVIEW BY THE AUTHORITY

(a) The Authority will review the application for accuracy and compliance with the requirements of 1.4.3 of this part.

(b) If the filing requirements of 1.4.3 of this part have not been met, the Authority will notify the applicant and take no further action until the applicant complies with the requirements of that subsection.

(c) If the application appears on its face to satisfy the requirements of 1.4.3 of this part and the Authority determines that a review of its merits is justified, the Authority will publish a detailed summary of the application for comment and will specify the date by which comments shall be received by the Authority for consideration.

1.4.4.2 EVALUATION OF THE REQUEST

(a) After initial review, if the filing requirements have been satisfied, the Authority will conduct a technical evaluation of the request, to include:

(1) A determination of whether an exemption would be in the public interest.

(2) A determination of whether the applicant's proposal would provide a level of safety equivalent to that established by the regulation.

(i) If it appears to the Authority that a technical evaluation of the request would impose a significant burden on the Authority's technical resources, the Authority may deny the exemption on that basis.

(3) A determination, if the applicant seeks to operate under the exemption outside of Curaçao airspace, of whether a grant of the exemption would contravene the provisions of the applicable ICAO SARPs.

(4) An evaluation of comments received from interested parties concerning the proposed exemption.

(5) A recommendation, based on the preceding elements, of whether the request may be granted or denied, and of any conditions or limitations that shall be part of the exemption.

1.4.4.3 NOTIFICATION OF DETERMINATION

(a) The Authority will notify the applicant by formal letter of its decision to grant or not the request for exemption. The decision shall specify the duration of the exemption and any conditions or limitations to the exemption.

(b) If the request is for emergency relief, the Authority will publish the Authority's decision as soon as possible after processing the application.

(c) If the exemption affects a significant population of the aviation community of Curaçao, the Authority will also publish the decision in its AIP.

1.4.4.4 EXTENSION OF THE EXEMPTION TO OTHER INTERESTED PARTIES

(a) If the Authority determines that an exemption may be granted whether or not with limitations or other conditions, as applicable, other persons or organisations may apply to the Authority to be included in the relief granted.

(b) Such applications shall be in accordance with the requirements of 1.4.3 of this part.

(c) If the Authority determines that the request merits extension of the exemption to the applicant, it will notify the applicant by letter, specifying the duration of the exemption and listing any additional conditions that may pertain to the applicant that are not addressed in the underlying exemption.

1.5 DEFINITIONS

Note: All definitions used in these regulations (the CCAR Parts 2 up to 11) have been moved to this subpart for ease of reference. Definitions that are predominantly used in specific parts of these regulations may also be included in those parts. In some instances, definitions in the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, may be different from the definitions used in these regulations. This is because the laws tend to be written more broadly... This part uses ICAO definitions, where available.

(a) For the purpose of these regulations, the following definitions shall apply:

(1) **Accelerate-stop distance available (ASDA).** The length of the take-off run available plus the length of the stopway, if provided.

(2) **Acceptable.** A rule of construction in paragraph 1.1.1.1(a)(7) of this part that means the Authority has reviewed the method, procedure, or policy and has neither objected to nor approved its proposed use or implementation.

(3) **Acceptance checklist.** As relating to the safe transport of dangerous goods, a document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met.

(4) **Accident.** In a safety management context, an occurrence associated with the operation of an aircraft that, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of a UA, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, and in which:

(i) A person is fatally or seriously injured as a result of being in the aircraft; having direct contact with any part of the aircraft, including parts that have become detached from the aircraft; or having direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted, or inflicted by other persons or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew;

(ii) The aircraft sustains damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories); propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, or the aircraft skin (such as small dents or puncture holes); minor damages to main rotor blades, tail rotor blades, or landing gear; and damage resulting from hail or bird strike (including holes in the radome); or

(iii) The aircraft is missing or is completely inaccessible.

Note 1: For statistical uniformity only, an injury resulting in death within 30 days of the date of the accident is classified by ICAO as a fatal injury.

Note 2: An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3: The type of UAS to be investigated is addressed in ICAO Annex 13: 5.1.

Note 4: Guidance for determining aircraft damage can be found in ICAO Annex 13, Attachment E.

(5) **Accountable manager.** The person acceptable to the Authority who has corporate authority for ensuring that all activities can be financed and carried out to the standard required by the Authority and any additional requirements defined by the operator. The accountable manager may delegate in writing to another person within the organisation the day-to-day management, but not the overall approval management responsibility.

(6) **Accredited medical conclusion.** The conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.

(7) **Accredited representative.** As relating to an aircraft accident, a person designated by a State, on the basis of the person's qualifications, for the purpose of participating in an investigation conducted by another party.

(8) **Acrobatic flight.** Manoeuvres intentionally performed by an aircraft involving an abrupt change in its attitude, an abnormal attitude, or an abnormal variation in speed.

(9) **Acts of unlawful interference.** Acts or attempted acts such as to jeopardise the safety of civil aviation and air transport, including:

(i) Unlawful seizure of aircraft;

(ii) Destruction of an aircraft in service;

(iii) Hostage-taking on board aircraft or at aerodromes;

(iv) Forcible intrusion on board an aircraft, at an aerodrome, or on the premises of an aeronautical facility;

(v) Introduction on board an aircraft or at an aerodrome of a weapon or hazardous device or material intended for criminal purposes;

(vi) Use of an aircraft in service for the purpose of causing death, serious bodily injury, or serious damage to property or the environment; and

(vii) Communication of false information such as to jeopardise the safety of an aircraft in flight or on the ground, or of passengers, crew, ground personnel, or the general public, at an aerodrome or on the premises of a civil aviation facility.

(10) **Adapted competency model.** A group of competencies with their associated descriptions and performance criteria adapted from an ICAO competency framework that an organisation uses to develop competency-based training and assessment for a given role.

(11) **Advanced aircraft.** An aircraft with equipment in addition to that required for a basic aircraft for a given take-off, approach, or landing operation.

(12) **Advisor.** As relating to an aircraft accident, a person appointed by a State, on the basis of the person's qualifications, for the purpose of assisting its accredited representative in an investigation.

(13) **Advisory airspace.** An airspace of defined dimensions, or a designated route, within which air traffic advisory service is available.

(14) **Advisory route.** A designated route along which air traffic advisory service is available.

(15) **Aerial work.** An aircraft operation in which an aircraft is used for specialised services such as agriculture, construction, photography, surveying, observation and patrol, search and rescue, aerial advertisement, etc.

(16) **Aerodrome.** A defined area on land or water (including any buildings, installations, and equipment) intended to be used either wholly or in part for the arrival, departure, and surface movement of aircraft.

(17) **Aerodrome control service.** ATC service for aerodrome traffic.

(18) **Aerodrome control tower.** A unit established to provide ATC service to aerodrome traffic.

(19) **Aerodrome flight information service (AFIS).** A directed traffic information and operational information service provided within an aerodrome flight information zone to all radio equipped aircraft, to assist in the safe and efficient conduct of flight.

(20) **Aerodrome operating minima.** The limits of usability of an aerodrome for:

(i) Take-off, expressed in terms of RVR and/or visibility and, if necessary, cloud conditions;

(ii) Landing in 2D instrument approach operations, expressed in terms of visibility and/or RVR, MDA/H, and if necessary, cloud conditions; and

(iii) Landing in 3D instrument approach operations, expressed in terms of visibility and/or RVR and DA/H, as appropriate to the type and/or category of operation.

(21) **Aerodrome traffic.** All traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.

Note: An aircraft is in the vicinity of an aerodrome when it is in, entering, or leaving an aerodrome traffic circuit.

(22) **Aerodrome traffic zone (ATZ).** An airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.

(23) **Aeronautical experience.** Pilot time obtained in an aircraft or approved FSTD for meeting the training and flight time requirements of these regulations.

(24) **Aeronautical Information Publication (AIP).** A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

(25) **Aeronautical product.** Any aircraft, aircraft engine, or aircraft propeller, or a part to be installed thereon.

(26) **Aeronautical station.** A land station in the aeronautical mobile service. In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea.

(27) **Aeroplane.** A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces that remain fixed under given conditions of flight.

(28) **Aeroplane system.** Includes all elements of equipment necessary for the control and performance of a particular major function. It includes both the equipment specifically provided for the function in question and other basic related aeroplane equipment, such as that required to supply power for the equipment operation. The engine is not considered to be an aeroplane system.

(29) **Agreement summary.** When an aircraft is operating under an Article 83 *bis* agreement between the State of Registry and another State, the agreement summary is a document transmitted with the Article 83 *bis* agreement registered with the ICAO Council that identifies succinctly and clearly which functions and duties are transferred by the State of Registry to that other State.

Note: The other State in the above definition refers to either the State of the Operator for commercial air transport operations or, for general aviation operations, to the State of the principal location of a general aviation operator.

(30) **Agricultural aircraft operation.** The operation of an aircraft for the purpose of:

(i) Dispensing any economic poison;

(ii) Dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life, or pest control; or

(iii) Engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects.

(31) **Aided night flight.** For a flight in which a pilot uses night vision goggles, the portion of the flight in which the pilot uses night vision goggles to maintain visual surface reference.

(32) **Airborne collision avoidance system (ACAS).** An aircraft system based on SSR transponder signals that operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.

(33) **Airborne image recorder (AIR).** A device that uses a combination of cameras to collect and record information that reflects the status of various parts of the aircraft (internal and external). Source: Current edition of EUROCAE ED-112A, *Minimum Operational Performance Specification for Crash Protected Airborne Recorder Systems*, paragraph 1-1.5.1.

Note: The FAA defines AIR as equipment intended to record aircraft flight images and store the data in crash-protected memory to assist in accident or incident investigations. Source: Current edition of FAA TSO-C176, Aircraft Cockpit Image Recorder Systems*, paragraph 3(a).*

(34) **Aircraft.** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. The term "aircraft," when used in the Luchtvaartlandsverordening (Civil Aviation Act) (the Act) or in these regulations, shall apply only to civil aircraft and not to State or public aircraft.

Note 1: Classification of aircraft is prescribed in IS 4.2.1.6.

Note 2: As of 26 November 2026, when the word "aircraft" is used, it includes the remotely piloted aircraft.

(35) **Aircraft avionics.** A term designating any electronic device, including its electrical part, for use in an aircraft, including radio, automatic flight control, and instrument systems.

(36) **Aircraft – category.** Classification of aircraft according to specified basic characteristics (e.g., aeroplane, helicopter, glider, free balloon, airship, powered-lift).

(37) **Aircraft certificated for multi-pilot operation.** A type of aircraft that the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of two pilots.

(38) **Aircraft certificated for single-pilot operation.** A type of aircraft that the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of one pilot.

(39) **Aircraft component.** Any component part of an aircraft up to and including a complete powerplant and/or any operational/emergency equipment.

(40) **Aircraft data recording system (ADRS).** A device or devices that use a combination of data providers to collect and record parameters that reflect the state and performance of an aircraft. Source: Current edition of EUROCAE ED-155, *Minimum Operational Performance Specification for Lightweight Flight Recording Systems*, paragraph 1-1.5.1.

(41) **Aircraft engine.** Any engine used, or intended to be used, for propulsion of aircraft, including all parts, appurtenances, and accessories thereof other than propellers.

(42) **Aircraft Flight Manual (AFM).** A manual, associated with the certificate of airworthiness, containing the limitations within which the aeroplane is to be considered airworthy and the instructions and information necessary to the flight crew members for the safe operation of the aeroplane.

(43) **Aircraft Operating Manual (AOM).** A manual, acceptable to the State of the Operator, containing normal, abnormal, and emergency procedures; checklists; limitations; performance information; details of the aircraft systems; and other material relevant to the operation of the aircraft.

Note: The AOM is part of the operator's OM.

(44) **Aircraft piracy.** Any actual or attempted seizure or exercise of control, by force or violence or by any other form of intimidation, with wrongful intent, of an aircraft within the jurisdiction of Curaçao.

(45) **Aircraft required to be operated with a CP.** A type of aircraft that is required to be operated with a CP, as specified in the flight manual or by the AOC.

(46) **Aircraft security check.** An inspection of the interior of an aircraft to which passengers may have had access and an inspection of the hold for the purpose of discovering suspicious objects, weapons, explosives, or other dangerous devices, articles, or substances.

(47) **Aircraft security search.** A thorough inspection of the interior and exterior of an aircraft for the purpose of discovering suspicious objects, weapons, explosives, or other dangerous devices, articles, or substances.

(48) **Aircraft technical log.** A document that is carried on an aircraft and contains information to meet ICAO Standards; it contains two independent sections: a journey records section and an aircraft continuing airworthiness records section.

(49) **Aircraft tracking.** A process established by the operator that maintains and updates, at standardised intervals, a ground-based record of the four-dimensional position of individual aircraft in flight.

(50) **Aircraft – type of.** All aircraft of the same basic design, including all modifications thereto except those modifications that result in a change in handling or flight characteristics.

(51) **Airframe.** The fuselage, booms, nacelles, cowlings, fairings, aerofoil surfaces (including rotors but excluding propellers and rotating aerofoils of a powerplant), and landing gear of an aircraft and their accessories and controls.

(52) **Air-ground control radio station.** An aeronautical telecommunication station having primary responsibility for handling communications pertaining to the operation and control of aircraft in a given area.

(53) **Airman.** Refers to:

(i) Any individual who engages, as the person in command or as a pilot, mechanic, or member of the crew, or navigates an aircraft while the aircraft is underway;

(ii) Any individual in charge of the inspection, maintenance, overhaul, or repair of aircraft and any individual in charge of the inspection, maintenance, overhaul, or repair of aircraft engines, propellers, or appliances; or

(iii) Any individual who serves in the capacity of flight operations officer.

(54) **Airmanship.** The consistent use of good judgement and well-developed knowledge, skills, and attitudes to accomplish flight objectives.

(55) **Air navigation facility.** Any facility used in, available for use in, or designed for use in the aid of air navigation, including aerodromes, landing areas, and lights; any apparatus or equipment for disseminating weather information, signalling, radio directional finding, or radio or other electrical communication; and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing and take-off of aircraft.

(56) **Air operator.** Any organisation that undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement.

(57) **Air operator certificate (AOC).** A certificate authorising an operator to carry out specified commercial air transport operations.

(58) **Air operator security programme.** Each Contracting State shall establish and implement a written national civil aviation security programme to safeguard civil aviation operations against acts of unlawful interference, through regulations, practices, and procedures that take into account the safety, regularity, and efficiency of flights.

(59) **Airship.** A power-driven lighter-than-air aircraft.

(60) **Airside.** The movement area of an aerodrome and adjacent terrain and buildings, or portions thereof, access to which is controlled.

(61) **Air-taxiing.** Movement of a helicopter/vertical take-off and landing above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt).

Note: The actual height may vary, and some helicopters may require air-taxiing 8 m (25 ft) above ground level to reduce ground-effect turbulence or provide clearance for cargo slingloads.

(62) **Air traffic.** All aircraft in flight or operating on the manoeuvring area of an aerodrome.

(63) **Air traffic advisory service.** A service provided within advisory airspace to ensure separation, insofar as practical, between aircraft that are operating on IFR flight plans.

(64) **Air traffic control (ATC) clearance.** Authorisation for an aircraft to proceed under conditions specified by an ATC unit.

Note 1: For convenience, the term "ATC clearance" is frequently abbreviated to "clearance" when used in appropriate contexts.

Note 2: The abbreviated term "clearance" may be prefixed by the words "taxi," "take-off," "departure," "en route," "approach," or "landing" to indicate the particular portion of flight to which the ATC clearance relates.

(65) **Air traffic control (ATC) facility.** A building holding the persons and equipment responsible for providing ATC services (e.g., aerodrome tower, approach control, centre). May also be called an ATC unit.

(66) **Air traffic control (ATC) service.** A service provided within advisory airspace that promotes the safe, orderly, and expeditious flow and separation of air traffic at aerodromes and during the approach, departure, and en route environments including aircraft that are operating on IFR flight plans. May also be called air traffic advisory service or ATS.

(67) **Air traffic service (ATS).** A generic term meaning variously, flight information service, alerting service, air traffic advisory service, ATC service (area control service, approach control service, or aerodrome control service.) See also air traffic control (ATC) service.

(68) **Air traffic service (ATS) airspaces.** Airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which ATSs and rules of operation are specified.

Note: ATS airspaces are classified as Class A to G.

(69) **Air traffic service (ATS) or air traffic control (ATC) route.** A specified route designed for channelling the flow of air traffic as necessary for the provision of ATSs, defined by route specifications that include an ATS or ATC route designator, the track to or from significant points (way points), the distance between significant points, the reporting requirements, and as determined by the appropriate ATS or ATC authority, the lowest safe altitude.

Note: ATS or ATC route is used to mean variously: airway, advisory route, controlled or uncontrolled route, or arrival or departure route.

(70) **Air traffic service (ATS) reporting office.** A unit established for the purpose of receiving reports concerning ATS and flight plans submitted before departure.

Note: An ATS reporting office may be established as a separate unit or combined with an existing unit, such as another ATS unit, or a unit of the aeronautical information service.

(71) **Air traffic service (ATS) surveillance service.** Indicates a service provided directly by means of an ATS surveillance system.

(72) **Air traffic service (ATS) surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR, or any comparable ground-based system that enables the identification of aircraft.

Note: A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.

(73) **Air traffic service (ATS) unit.** A generic term meaning variously, ATC unit, flight information centre, or ATS reporting office.

(74) **Airway.** A control area or portion thereof established in the form of a corridor.

(75) **Airworthiness approval tag (AAT).** A tag that shall be attached to a part. The tag shall include the part number, serial number, and current life status of the part. Each time the part is removed from a type-certificated product, a new tag shall be created or the existing tag shall be updated with the current life status. The AAT has two distinct purposes: (1) as an approval for return to service of an aeronautical product or assembly after maintenance, overhaul, modification, repair, or inspection; and (2) for shipping of a newly manufactured part.

(76) **Airworthiness data.** Any information necessary to ensure that an aircraft or aircraft component can be maintained in a condition such that airworthiness of the aircraft or serviceability of operational and emergency equipment, as appropriate, is assured.

(77) **Airworthiness Directive (AD).** Continuing airworthiness information that applies to the following products: aircraft, aircraft engines, propellers, and appliances. An AD is mandatory if issued by the State of Design.

(78) **Airworthiness release.** The air operator's aircraft are released for service following maintenance by a person specifically authorised by the air operator rather than by an individual or maintenance organisation on the air operator's behalf.

Note: Regarding the airworthiness release, in effect, the person signing the release acts in the capacity of an authorised agent for the operator and is certifying that the maintenance covered by the release was accomplished according to the air operator's continuing airworthiness maintenance programme. Normally, a release is required following inspections prescribed by the air operator's operations specifications, maintenance activities involving inspections, and any other significant maintenance. A copy of the airworthiness release must be given to the PIC before the aircraft commences operations. The air operator is obligated to designate, by name or occupational title, each licensed AMT or maintenance organisation authorised to execute the airworthiness release. In addition, the air operator shall designate when an airworthiness release is required.

(79) **Airworthy.** Until 25 November 2026, the status of an aircraft, engine, propeller, or part when it conforms to its approved design and is in a condition for safe operation.

(80) **Airworthy.** As of 26 November 2026, the status of an aircraft, RPS, engine, propeller, or part when it conforms to its approved design and is in a condition for safe operation.

(81) **Alerting service.** A service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid and to assist such organisations as required.

(82) **Alternate aerodrome.** An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or land at the aerodrome of intended landing and where the necessary services and facilities are available, where aircraft performance requirements can be met, and which is operational at the expected time of use. Alternate aerodromes include the following:

(i) **Take-off alternate.** An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and if it is not possible to use the aerodrome of departure.

(ii) **En route alternate.** An alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.

(iii) **Destination alternate.** An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.

Note: The aerodrome from which a flight departs may also be an en route or a destination alternate aerodrome for that flight.

(83) **Alternative means of compliance.** An approved alternative to prescribed approaches, which has been demonstrated to consistently achieve or exceed the desired outcomes as intended through regulation.

Note: An example of an alternative means of compliance would be the Authority's approval of reduced flight time from 40 hours to 35 hours for a PPL(A) when training is conducted in an ATO.

(84) **Altimetry system error (ASE).** The difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure.

(85) **Altitude.** The vertical distance of a level, a point, or an object considered as a point, measured from MSL.

(86) **Annexes to the Chicago Convention.** The documents issued by ICAO containing the SARPs applicable to civil aviation.

(87) **Anticipated operating conditions.** Until 25 November 2026, those conditions that are envisaged to occur during the operation life of the aircraft, taking into account the operations for which the aircraft is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, the configuration of terrain, the functioning of the aircraft, the efficiency of personnel, and all the factors affecting safety in flight. Anticipated operating conditions do not include:

(i) Those extremes that can be effectively avoided by means of operating procedures; and

(ii) Those extremes that occur so infrequently that to require the standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical.

(88) **Anticipated operating conditions.** As of 26 November 2026, those conditions that are envisaged to occur during the operation life of the aircraft and the RPS, taking into account the operations for which the aircraft or RPS is made eligible, the conditions so considered being relative to the meteorological state of the atmosphere, the configuration of terrain, the functioning of the aircraft and RPS, the efficiency of personnel, and all the factors affecting safety in flight. Anticipated operating conditions do not include:

(i) Those extremes that can be effectively avoided by means of operating procedures; and

(ii) Those extremes that occur so infrequently that to require the standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical.

(89) **Appliances.** Instruments, equipment, apparatus, parts, appurtenances, or accessories, of whatever description, that are used, or are capable of being or intended to be used, in the navigation, operation, or control of aircraft in flight (including parachutes, communication equipment, and any other mechanism or mechanisms installed in or attached to aircraft during flight) and that are not part or parts of aircraft, aircraft engines, or propellers.

(90) **Approach and landing phase – helicopters.** That part of the flight from 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or from the commencement of the descent in the other cases, to landing or to the balked landing point.

(91) **Approach control service.** ATC service for arriving or departing controlled flights.

(92) **Approach control unit.** A unit established to provide ATC service to controlled flights arriving at, or departing from, one or more aerodromes.

(93) **Approach procedure with vertical guidance (APV).** A PBN IAP designed for 3D instrument approach operations Type A.

(94) **Appropriate air traffic service (ATS) or air traffic control (ATC) authority.** The relevant authority designated by the State responsible for providing ATS or ATC in the airspace concerned.

(95) **Appropriate airworthiness requirements.** Until 25 November 2026, the comprehensive and detailed airworthiness codes established, adopted, or accepted by a Contracting State for the class of aircraft, engine, or propeller under consideration.

(96) **Appropriate airworthiness requirements.** As of 26 November 2026, the comprehensive and detailed airworthiness codes established, adopted, or accepted by a Contracting State for the class of aircraft, RPS, engine, or propeller under consideration.

(97) **Appropriate authority.**

(i) Regarding flight over the high seas: The relevant authority of the State of Registry.

(ii) Regarding flight other than over the high seas: The relevant authority of the State having sovereignty over the territory being overflown.

(98) **Approval.** As relating to dangerous goods in Parts 8 and 9 of these regulations, a provision in ICAO Annex 18 states that an approval is an authorisation granted by an appropriate national authority for:

(i) The transport of dangerous goods forbidden on passenger and/or cargo aircraft where the Technical Instructions state that such goods may be carried with an approval; or

(ii) Other purposes as provided for in the Technical Instructions.

Note 1: In the absence of a specific reference in the Technical Instructions allowing the granting of an approval, an exemption may be sought.

Note 2: See definition below for Technical Instructions.

(99) **Approval for return to service.** A document that contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the AMO Procedures Manual or under an equivalent system.

(100) **Approved.** Accepted by a Contracting State as suitable for a particular purpose.

Note: Relating to approvals as used in these regulations, the term "approved" is a rule of construction in paragraph 1.1.1.1(a)(6) of this part that means the Authority has reviewed the method, procedure, or policy in question and has issued a formal written approval.

(101) **Approved by the Authority.** Approved by the Authority directly or in accordance with a procedure approved by the Authority.

(102) **Approved curriculum.** A set of special training courses in an area of specialisation offered by an ATO and approved by the Authority.

(103) **Approved data.** Technical information approved by the Authority.

(104) **Approved maintenance organisation (AMO).** An organisation approved by the Authority, in accordance with Part 6 of these regulations, to perform maintenance, overhaul, modification, repair, or inspection on an aircraft, aeronautical product, or, as of 26 November 2026, an RPS, and operating under supervision approved by the Authority.

(105) **Approved standard.** A manufacturing, design, maintenance, or quality standard approved by the Authority.

(106) **Approved training.** Training carried out under special curricula and supervision approved by the Authority.

(107) **Approved training organisation (ATO).** An organisation approved by the Authority, in accordance with Part 3 of these regulations, to perform flight crew training, mechanic training, and other training approved by the Authority.

(108) **Approved Training Organisation (ATO) Procedures Manual.** A manual containing procedures, instructions, and guidance for use by personnel of an ATO in the execution of their duties in meeting the requirements of the certificate. It may be a combined manual or may be separated into a Training Manual and a Procedures Manual.

(i) **Training manual.** A manual containing the training goals, objectives, standards, syllabi, and curriculum for each phase of the approved training course.

(ii) **Procedures manual.** A manual containing procedures, instructions, and guidance for use by personnel of the ATO in the execution of their duties in meeting the requirements of the certificate.

(109) **Area control centre.** A unit established to provide ATC service to controlled flights in control areas under its jurisdiction.

(110) **Area control service.** ATC service for controlled flights in control areas.

(111) **Area navigation (RNAV).** A method of navigation that permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

Note: Area navigation includes PBN as well as other operations that do not meet the definition of PBN.

(112) **Authorised instructor.** A person who:

(i) Holds a valid ground instructor certificate issued under Part 2 of these regulations when conducting ground training;

(ii) Holds a current flight instructor certificate issued under Part 2 of these regulations when conducting ground training or flight training; or

(iii) Is authorised by the Authority to provide ground training or flight training under Parts 2 and 3 of these regulations.

(113) **Authority.** The CCAA responsible for the oversight of civil aviation in Curaçao.

(114) **Automatic dependent surveillance (ADS).** A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position, and additional data as appropriate.

(115) **Automatic dependent surveillance (ADS) agreement.** An ADS reporting plan that establishes the conditions of ADS data reporting (i.e., data required by the ATS or control unit and frequency of ADS reports that shall be agreed to prior to the provision of the ADS services).

(116) **Automatic dependent surveillance – broadcast (ADS-B).** A means by which aircraft, aerodrome vehicles, and other objects can automatically transmit and/or receive data such as identification, position, and additional data, as appropriate, in a broadcast mode via a data link.

(117) **Automatic dependent surveillance – contract (ADS-C).** A means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated and what data would be contained in the reports.

Note: The abbreviated term "ADS contract" is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract, or an emergency mode.

(118) **Automatic dependent surveillance – contract (ADS-C) agreement.** A reporting plan that establishes the conditions of ADS-C data reporting (i.e. data required by the ATS unit and frequency of ADS-C reports that shall be agreed to prior to using ADS-C in the provision of ATS).

Note: The terms of the agreement will be exchanged between the ground system and the aircraft by means of a contract or a series of contracts.

(119) **Automatic deployable flight recorder (ADFR).** A combination flight recorder that is installed on the aircraft and is capable of automatically deploying from the aircraft.

Note: This could include the cockpit voice recorder or flight data recorder.

(120) **Aviation medical assessor.** A physician, appointed by the Licensing Authority, who is qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance.

(121) **Aviation medical examiner.** A physician with training in aviation medicine and practical knowledge and experience of the aviation environment who is designated by the Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed.

(122) **Aviation security.** The safeguarding civil aviation against acts of unlawful interference. This objective is achieved by a combination of measures and human and material resources.

(123) **Balloon.** A non-power-driven lighter-than-air aircraft.

(124) **Banner.** An advertising medium supported by a temporary framework attached externally to the aircraft and towed behind the aircraft.

(125) **Basic aircraft.** An aircraft which has the minimum equipment required to perform the intended take-off, approach, or landing operation.

(126) **Behaviour detection**. Within an aviation security environment, the application of techniques involving the recognition of behavioural characteristics, including physiological or gestural signs indicative of anomalous behaviour, to identify persons who may pose a threat to civil aviation.

(127) **Cabin crew member.** A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the PIC of the aircraft, but who shall not act as a flight crew member.

Note: Cabin crew may or may not be licensed by the Authority.

(128) **Calendar day.** The period of elapsed time, using coordinated universal time or local time, that begins at midnight and ends 24 hours later at the next midnight.

(129) **Calendar month.** A period of a month beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered month (as 1 January through 31 January in the Gregorian calendar).

(130) **Calendar year.** A period of a year beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as 1 January through 31 December in the Gregorian calendar).

(131) **Calibration.** A set of operations, performed in accordance with a definite documented procedure that compares the measurement performed by a measurement device or working standard with a recognised bureau of standards for the purpose of detecting and reporting or eliminating adjustment errors in the measurement device, working standard, or aeronautical product tested.

(132) **Cargo.** Any property carried on an aircraft other than mail, stores, and accompanied or mishandled baggage.

(133) **Cargo aircraft.** Any aircraft carrying goods or property but not passengers. In this context, the following are not considered to be passengers:

(i) A crew member

(ii) An operator's employee permitted by, and carried in accordance with, the instructions contained in the OM

(iii) An authorised representative of an Authority

(iv) A person with duties with respect to a particular shipment on board

(134) **Causes.** As relating to an aircraft accident or incident, the actions, omissions, events, or conditions, or a combination thereof, that led to the accident or incident.

(135) **Ceiling.** The height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky.

(136) **Certificate of airworthiness.** A certificate issued by the State of Registry when an aircraft has been deemed fit and safe for flight and in conformity with the type design approved by the State of Design and maintained in accordance with the continuing airworthiness requirements of the State of Registry.

Note: The definition of certificate of airworthiness was developed by using primarily the definition from Transport Canada with additional ICAO material.

(137) **Certify as airworthy.** The act of completing an approval for return to service, by a properly authorised person after the maintenance, overhaul, modification, repair, or inspection of an aircraft or aeronautical product, by which the aircraft or aeronautical part is cleared for use in flight as meeting the requirements of the certificate of airworthiness of Curaçao.

(138) **Certifying staff.** Those personnel who are authorised by the AMO in accordance with a procedure acceptable to the Authority to approve aircraft or aeronautical products for return to service.

(139) **Changeover point.** The point at which an aircraft navigating on an ATC or ATS route segment defined by reference to very high frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.

Note: Changeover points are established to provide the optimum balance with respect to signal strength and quality between facilities at all levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.

(140) **Check person.** A qualified person who is authorised by the Authority to conduct an evaluation of either an AOC holder's flight crew (pilots, flight engineers, or flight navigators), cabin crew, or flight operations officer. Terms that may be used to describe this person, depending upon responsibilities, are check pilot, check flight engineer, check flight navigator, check cabin crew member, and check flight operations officer. Check persons for flight crew may be further authorised to perform checks in either an aircraft or simulator, as defined below.

(i) **Check person (aircraft).** A person who is qualified, and authorised by the Authority, to conduct a flight crew evaluation in an aircraft or in an FSTD for a particular type aircraft, for a particular AOC holder.

(ii) **Check person (simulator).** A person who is qualified, and authorised by the Authority, to conduct a flight crew evaluation, but only in an FSTD for a particular type aircraft, for a particular AOC holder.

(141) **Citizen of Curaçao.** Refers to one of the following:

(i) An individual who is a citizen of Curaçao;

(ii) A partnership of which each member is a citizen of Curaçao; or

(iii) A corporation or association created or organised and authorised under the laws of Curaçao.

(142) **Civil aircraft.** Any aircraft other than a State or public aircraft.

(143) **Civil aviation.** The operation of any civil aircraft for the purpose of general aviation operations, aerial work, or commercial air transport operations.

(144) **Clearance limit.** The point to which an aircraft is granted an ATC clearance.

(145) **Cockpit audio recording system (CARS).** A device that uses a combination of microphones and other audio and digital inputs to collect and record the aural environment of the flight deck and communications to, from, and between the pilots. Source: Current edition of EUROCAE ED-155, *Minimum Operational Performance Specification for Lightweight Flight Recording Systems*, paragraph 1-1.5.1.

(146) **Combined vision system (CVS).** A system to display images from a combination of an EVS and an SVS.

(147) **Command and control link (C2 Link).** As of 26 November 2026, the data link between the RPA and the RPS for the purposes of managing the flight.

(148) **Command and control link (C2 Link) communication service provider (C2CSP).** An entity which provides a portion of, or al of, the C2 Link service for the operation of an RPAS.

(149) **Command and control link (C2 Link) interruption.** As of 26 November 2026, any temporary situation where the C2 Link is unavailable or discontinuous, introduces too much delay, or has inadequate integrity; but where the lost C2 Link decision time has not been exceeded.

(150) **Command and control link (C2 Link) specification.** As of 26 November 2026, the minimum performance to be achieved by the C2 Link equipment in conformity with the applicable airworthiness system design requirements.

(151) **Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo, or mail for remuneration or hire.

(152) **Common mark.** A mark assigned by ICAO to the common mark registering authority registering aircraft of an international operating agency on other than a national basis.

Note: All aircraft of an international operating agency that are registered on other than a national basis will bear the same common mark.

(153) **Common mark registering authority.** The authority maintaining the non-national register or, where appropriate, the part thereof, in which aircraft of an international operating agency are registered.

(154) **Company materials (COMAT).** Operator material carried on an operator's aircraft for the operator's own purposes.

(155) **Competency.** A dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviours that mobilise the relevant knowledge, skills, and attitudes to carry out activities or tasks under specified conditions.

(156) **Competency-based training and assessment.** Training and assessment that are characterised by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.

Note: This training process is derived from a job and task analysis and focuses on the achievement of well-defined, benchmarked standards of performance as opposed to training programmes that simply focus on the acquisition of prescribed levels of experience.

(157) **Competency standard**. A level of performance that is defined as acceptable when assessing whether or not competency has been achieved.

(158) **Complex aeroplane.** An aeroplane that has retractable landing gear, flaps, and a controllable-pitch propeller or, in the case of a seaplane, flaps and a controllable-pitch propeller.

(159) **Composite.** Structural materials made of substances, including wood, metal, ceramic, plastic, fiber-reinforced materials, graphite, boron, or epoxy, with built-in strengthening agents that may be in the form of filaments, foils, powders, or flakes of a different material.

(160) **Computer system.** Any electronic or automated system capable of receiving, storing, and processing external data and transmitting and presenting such data in a usable form for the accomplishment of a specific function.

(161) **Conditions**. Anything that may qualify a specific environment in which performance will be demonstrated.

(162) **Configuration (as applied to the aeroplane).** A particular combination of the positions of the moveable elements, such as wing flaps and landing gear, etc., that affects the aerodynamic characteristics of the aeroplane.

(163) **Configuration deviation list (CDL).** A list, established by the organisation responsible for the type design with the approval of the State of Design, that identifies any external parts of an aircraft type that may be missing at the commencement of a flight and that contains, where necessary, any information on associated operating limitations and performance correction.

(164) **Congested area.** A city, town, or settlement or an open-air assembly of people.

(165) **Congested hostile environment.** A hostile environment within a congested area.

(166) **Consignment.** One or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot, and moving to one consignee at one destination address.

(167) **Contaminated runway.** A runway is contaminated when a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed in the runway surface condition descriptors.

(168) **Continuing airworthiness.** Until 25 November 2026, the set of processes by which an aircraft or aeronautical product complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

(169) **Continuing airworthiness.** As of 26 November 2026, the set of processes by which an aircraft, RPS, or aeronautical product complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

(170) **Continuing airworthiness maintenance programme.** A maintenance programme approved by the State of Registry.

(171) **Continuing airworthiness records.** Records that are related to the continuing airworthiness status of an aircraft or aeronautical product.

(172) **Continuous descent final approach (CDFA).** A technique, consistent with stabilised approach procedures, for flying the FAS of an instrument NPA procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre begins for the type of aircraft flown; for the FAS of an NPA procedure followed by a circling approach, the CDFA technique applies until circling approach minima (circling OCA/H) or visual flight manoeuvre altitude/height are reached.

(173) **Contracting State.** A State that is a signatory to the Convention on International Civil Aviation (Chicago Convention).

(174) **Control area.** A controlled airspace extending upward from a specified limit above the earth.

(175) **Control zone.** A controlled airspace extending upward from the surface of the earth to a specified upper limit.

(176) **Controlled aerodrome.** An aerodrome at which ATC service is provided to aerodrome traffic.

(177) **Controlled airspace.** An airspace of defined dimensions within which ATC service is provided in accordance with the airspace classification.

Note: Controlled airspace is a generic term that covers ATC or ATS airspace Classes A, B, C, D, and E as described in ICAO Annex 11: 2.6.

(178) **Controlled flight.** Any flight that is subject to an ATC clearance.

(179) **Controlled flight into terrain (CFIT).** Occurs when an airworthy aircraft is flown, under the control of a qualified pilot, into terrain, water, or an obstacle with inadequate awareness on the part of the pilot of the impending collision.

(180) **Controller-pilot data link communications (CPDLC).** A means of communication between controller and pilot, using data link for ATC communications.

(181) **Convention on International Civil Aviation (Chicago Convention).** The Convention on International Civil Aviation concluded in Chicago, Illinois, of the United States of America, in 1944, in effect, 1947. The Articles of the Chicago Convention govern the actions of the Contracting States in matters of international civil aviation safety directly and through the Annexes to the Chicago Convention, which set forth the ICAO SARPs.

(182) **Conversion.** Conversion is the action taken by Curaçao in issuing its own licence on the basis of a licence issued by another Contracting State for use on aircraft registered in Curaçao.

(183) **Co-pilot (CP).** A licensed pilot serving in any piloting capacity other than as PIC but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

(184) **Corporate aviation.** The non-commercial operation or use of aircraft by a company for the carriage of passengers or goods as an aid to the conduct of company business, flown by (a) professional pilot(s) employed to fly the aircraft.

(185) **Course.** A programme of instruction to teach knowledge, skills, and/or competencies in a particular area or subject or to maintain existing qualifications.

(186) **Courseware.** Instructional material developed for each course or curriculum, including lesson plans and other aids such as computer software programs, audiovisual programmes, workbooks, and handouts.

(187) **Credit.** Recognition of alternative means or prior qualifications.

(188) **Crew member.** A person assigned by an operator to duty on an aircraft during a flight duty period.

(189) **Crew resource management.** A programme designed to improve the safety of flight operations by optimising the safe, efficient, and effective use of human resources, hardware, and information through improved crew communication and coordination.

(190) **Critical engine.** The engine whose failure would most adversely affect the performance or handling qualities of an aircraft.

(191) **Critical phases of flight.** Those portions of operations involving taxiing, take-off and landing, and all flight operations below 3 050 m (10 000 ft) except cruise flight.

(192) **Critical power unit(s).** A power unit, the failure of which has the most adverse effect on the aircraft characteristics relative to the case under consideration.

Note: On some aircraft there may be more than one equally critical power unit. In that case, the phrase "the critical power unit" means one of those critical power units.

(193) **Cross-country.** A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.

(194) **Cross-country time.** That time a pilot spends in flight in an aircraft, which includes a landing at a point other than the point of departure and, for the purpose of meeting the cross-country time requirements for a PPL (except with a rotorcraft rating), a CPL, or an instrument rating, includes a landing at an aerodrome that shall be a straight-line distance of more than 50 NM from the original point of departure.

(195) **Cruise climb.** An aeroplane cruising technique resulting in a net increase in altitude as the aeroplane mass decreases.

(196) **Cruise relief pilot.** A flight crew member who is assigned to perform pilot tasks during cruise flight to allow the PIC or CP to obtain planned rest.

(197) **Cruising level.** A level maintained during a significant portion of a flight.

(198) **Current flight plan.** The flight plan, including changes, if any, brought about by subsequent clearances.

(199) **Curriculum.** A set of courses in an area of specialisation offered as part of a training programme.

(200) **Danger area.** An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

(201) **Dangerous goods.** Articles or substances that are capable of posing a risk to health, safety, property, or the environment and are shown in the list of dangerous goods in the Technical Instructions or are classified according to those instructions.

Note 1: See definition below for Technical Instructions.

Note 2: Dangerous goods are classified in Chapter 3 of ICAO Annex 18, The Safe Transport of Dangerous Goods by Air.

(202) **Dangerous goods accident.** An occurrence associated with and related to the transport of dangerous goods by air that results in fatal or serious injury to a person or major property or environmental damage.

Note: See definition below for Technical Instructions.

(203) **Dangerous goods incident.** An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, that results in injury to a person, property or environmental damage, fire, breakage, spillage, leakage of fluid or radiation, or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods that seriously jeopardises the aircraft or its occupants is also deemed to constitute a dangerous goods incident.

Note: See definition below for Technical Instructions.

(204) **Dangerous goods transport document.** A document specified by Technical Instructions. It is completed by the person who offers dangerous goods for air transport and contains information about those dangerous goods. The document bears a signed declaration indicating that the dangerous goods are fully and accurately described by their proper shipping names and UN numbers (if assigned) and that they are correctly classified, packed, marked, labelled, and in a proper condition for transport.

Note: See definition below for Technical Instructions.

(205) **Data link communications.** A form of communication intended for the exchange of messages via a data link.

(206) **Data link recording system.** A device, controlled directly or indirectly, that records the messages through which the flight path of an aircraft is authorised and that relays those messages over a digital data link rather than by voice communication. Source: Current edition of EUROCAE ED-155, *Minimum Operational Performance Specification for Lightweight Flight Recording Systems*, paragraph 1-1.5.1.

(207) **Deadhead transportation.** Time spent in transportation on aircraft (at the insistence of the AOC holder) to or from a crew member's home station.

(208) **Decision altitude (DA) or decision height (DH).** A specified altitude or height in a 3D instrument approach operation at which a missed approach shall be initiated if the required visual reference to continue the approach has not been established.

Note 1: DA is referenced to MSL and DH is referenced to the threshold elevation.

Note 2: The required visual reference means that section of the visual aids or of the approach area that should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position in relation to the desired flight path. In CAT III operations with a DH, the required visual reference is that specified for the particular procedure and operation.

Note 3: For convenience where both expressions are used, they may be written in the form "decision altitude/height" and abbreviated "DA/H."

(209) **Defined point after take-off (DPATO).** The point, within the take-off and initial climb phase, before which the performance Class 2 helicopter's ability to continue the flight safely, with one engine inoperative, is not ensured and a forced landing may be required.

(210) **Defined point before landing (DPBL).** The point, within the approach and landing phase, after which the performance Class 2 helicopter's ability to continue the flight safely, with one engine inoperative, is not ensured and a forced landing may be required.

(211) **Design landing mass.** The maximum mass of the aircraft at which, for structural design purposes, it is assumed that it will be planned to land.

(212) **Design take-off mass.** The maximum mass at which the aircraft, for structural design purposes, is assumed to be planned to be at the start of the take-off run.

(213) **Design taxiing mass.** The maximum mass of the aircraft at which structural provision is made for load liable to occur during use of the aircraft on the ground prior to the start of take-off.

(214) **Designated examiner.** Any person designated by the Authority to act as a representative of the Authority in examining, inspecting, and testing persons for the purposes of issuing licences, ratings, or certificates.

(215) **Designated postal operator**. Any governmental or non-governmental entity officially designated by a UPU member country to operate postal services and to fulfil the related obligations arising from the acts of the UPU Convention on its territory.

(216) **Detect and avoid.** As of 26 November 2026, the capability to see, sense, or detect conflicting traffic or other hazards and take the appropriate action.

(217) **Directly in charge.** As relating to an AMO in Part 6 of these regulations, an appropriately licensed person(s) having the responsibility for the work of an AMO that performs maintenance, overhaul, modification, repair, inspection, or other functions affecting aircraft airworthiness. A person directly in charge does not need to physically observe and direct each worker constantly but must be available for consultation on matters requiring instruction or decision from a higher authority.

(218) **Director.** The DG CCAA.

(219) **Discrete source damage.** Structural damage of the aeroplane that is likely to result from impact with a bird, uncontained fan blade failure, uncontained engine failure, uncontained high-energy rotating machinery failure, or similar causes.

(220) **Disruptive passenger.** A passenger who fails to respect the rules of conduct at an aerodrome or on board an aircraft or to follow the instructions of aerodrome personnel or crew members and thereby disturbs the good order and discipline at the aerodrome or on board the aircraft.

(221) **Dry lease.** The lease of an aircraft without the crew.

(222) **Dry runway.** A runway is considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used.

(223) **Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorised pilot on board the aircraft or from a properly authorised remote pilot using the RPS during an RPA flight.

(224) **Duty.** Any task that flight or cabin crew members are required by the operator to perform, including, for example, flight duty, administrative work, training, positioning, and standby when it is likely to induce fatigue.

(225) **Duty period.** As related to an air operator, a period that starts when a flight or cabin crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties.

(226) **Duty time.** The total time from the moment a person identified in these regulations begins, immediately after a rest period, any work on behalf of the operator until that person is free from all restraint associated with that work.

(227) **Economic poison.** Any substance or mixture of substances intended for:

(i) Preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, except viruses on or in living human beings or other animals, that the Curaçao may declare to be a pest; or

(ii) Use as a plant regulator, defoliant, or desiccant.

(228) **Effective length of the runway.** The distance for landing from the point at which the obstruction clearance plane associated with the approach end of the runway intersects the centre line of the runway to the far end.

(229) **Electronic flight bag (EFB).** An electronic information system, consisting of equipment and applications for flight crew, that allows for the storing, updating, displaying, and processing of EFB functions to support flight operations or duties.

(230) **Elevated heliport.** A heliport located on a raised structure on land.

(231) **Emergency locator transmitter (ELT).** A generic term describing equipment that broadcasts distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or manually activated. An ELT may be any of the following:

(i) **Automatic fixed ELT (ELT(AF)).** An automatically activated ELT that is permanently attached to an aircraft.

(ii) **Automatic portable ELT (ELT(AP)).** An automatically activated ELT that is rigidly attached to an aircraft but readily removable from the aircraft.

(iii) **Automatic deployable ELT (ELT(AD)).** An ELT that is rigidly attached to an aircraft and automatically deployed and activated by impact and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

(iv) **Survival ELT (ELT(S)).** An ELT that is removable from an aircraft, stowed to facilitate its ready use in an emergency, and manually activated by survivors.

(232) **Engine.** A unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but it excludes the propeller/rotors (if applicable).

(233) **Enhanced ground proximity warning system (EGPWS).** A forward-looking warning system that uses the terrain database for terrain avoidance.

(234) **Enhanced vision system (EVS).** A system to display electronic real-time images of the external scene achieved through the use of image sensors.

Note: EVS does not include night vision imaging systems.

(235) **En-route phase.** That part of the flight from the end of the take-off and initial climb phase to the commencement of the approach and landing phase.

Note: Where adequate obstacle clearance cannot be guaranteed visually, flights must be planned to ensure that obstacles can be cleared by an appropriate margin. In the event of failure of the critical engine, operators may need to adopt alternative procedures.

(236) **Equivalent system of maintenance.** An AOC holder may conduct maintenance activities through an arrangement with an AMO or may conduct its own maintenance, overhaul, modifications, repairs, or inspections, as long as the AOC holder's maintenance system is approved by the Authority and is equivalent to that of an AMO, except that the approval for return to service of an aircraft/aeronautical product shall be made by an appropriately licensed AMT or ARS in accordance with Part 2 of these regulations, as appropriate.

(237) **Error.** As relates to the flight crew, an action or inaction by the flight crew that leads to deviations from organisational or flight crew intentions or expectations.

(238) **Error management.** The process of detecting errors and responding to them with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired states.

Note: See Chapter 6 of Part II, Section I, of ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG)*; and ICAO Circular 314,* Threat and Error Management (TEM) in Air Traffic Control*, for a description of undesired states.*

(239) **Estimated off-block time.** The estimated time at which the aircraft will commence movement associated with departure.

(240) **Estimated time of arrival.** For IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an IAP will be commenced or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For VFR flights, the time at which it is estimated that the aircraft will arrive over the aerodrome.

(241) **Examiner.** Any person designated by the Authority to act as a representative of the Authority in examining, inspecting, and testing persons and aircraft for the purpose of issuing licences, ratings, and certificates.

(242) **Exception.** As relating to dangerous goods in Part 9 of these regulations, a provision in ICAO Annex 18 that excludes a specific item of dangerous goods from the Standards normally applicable to that item.

(243) **Expected approach time.** The time at which ATC expects that an arriving aircraft, following a delay, will leave the holding point to complete its approach for a landing.

Note: The actual time of leaving the holding point will depend upon the approach clearance.

(244) **Extended diversion time operations (EDTO).** Any operation by an aeroplane with two or more turbine engines where the diversion time to an en route alternate aerodrome is greater than the threshold time established by the State of the Operator.

(245) **Extended diversion time operations (EDTO) critical fuel.** The fuel quantity necessary to fly to an en route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure.

(246) **Extended diversion time operations (EDTO) significant system.** An aeroplane system whose failure or degradation could adversely affect the safety particular to an EDTO flight or whose continued functioning is specifically important to the safe flight and landing of an aeroplane during an EDTO diversion.

(247) **Extended flight over water.** A flight operated over water at a distance of more than 93km (50 NM) or 30 minutes at normal cruising speed, whichever is the lesser, away from land suitable for making an emergency landing.

(248) **Extended overwater operation.** With respect to aircraft other than helicopters, an operation over water at a horizontal distance of more than 50 NM from the nearest shoreline; and to helicopters, an operation over water at a horizontal distance of more than 50 NM from the nearest shoreline and more than 50 NM from an offshore heliport structure.

(249) **Facility.** A physical plant, including land, buildings, and equipment, that provides a means for the conduct of the activities approved by the Authority for an approved or certificated entity.

(250) **Factor of safety.** A design factor used to provide for the possibility of loads greater than those assumed and for uncertainties in design and fabrication.

(251) **Fatal injury.** As relates to an aircraft accident, any injury that results in death within 30 days of the accident.

(252) **Fatigue.** A physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational duties.

(253) **Fatigue risk management system (FRMS).** A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience, that aims to ensure relevant personnel are performing at adequate levels of alertness.

(254) **Filed flight plan.** The flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes.

(255) **Final approach and take-off area (FATO).** A defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced. Where the FATO is to be used by performance Class 1 helicopters, the defined area includes the rejected take-off area available.

(256) **Final approach segment (FAS).** The segment of an IAP in which alignment and descent for landing are accomplished.

(257) **Finding.** A conclusion by audit personnel that demonstrates nonconformity with a specific standard.

(258) **Fireproof.** The capability to withstand the application of heat by a flame for a period of 15 minutes.

Note: The characteristics of an acceptable flame can be found in ISO 2685, Aircraft **–** Environmental test procedure for airborne equipment **–** Resistance to fire in designated fire zones.

(259) **Fireproof material.** A material capable of withstanding heat as well as or better than steel when the dimensions in both cases are appropriate for the specific purpose.

(260) **Fire resistant.** The capability to withstand the application of heat by a flame for a period of 5 minutes.

Note: The characteristics of an acceptable flame can be found in ISO 2685, Aircraft **–** Environmental test procedure for airborne equipment **–** Resistance to fire in designated fire zones.

(261) **Flight crew member.** A licensed crew member charged with duties essential to the operation of an aircraft during flight duty period.

(262) **Flight data analysis.** A process of analysing recorded flight data in order to improve the safety of flight operations.

(263) **Flight duty period.** A period that commences when a flight or cabin crew member is required to report for duty that includes a flight or a series of flights and that finishes when the aircraft finally comes to rest and the engines are shut down at the end of the last flight on which that individual is a crew member.

(264) **Flight information centre.** A unit established to provide flight information service and alerting service.

(265) **Flight information region.** An airspace of defined dimensions within which flight information service and alerting service are provided.

(266) **Flight information service.** A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

(267) **Flight level.** A surface of constant atmospheric pressure that is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

(268) **Flight manual.** A manual associated with the certificate of airworthiness that contains limitations within which the aircraft is to be considered airworthy and instructions and information necessary to the flight crew members for the safe operation of the aircraft.

(269) **Flight operations officer/flight dispatcher.** A person designated by the operator to engage in the control and supervision of flight operations, whether licensed or not, who is suitably qualified in accordance with ICAO Annex 1 and who supports, briefs, and/or assists the PIC in the safe conduct of the flight.

(270) **Flight plan.** Specified information provided to ATS units, relative to an intended flight or portion of a flight of an aircraft.

(271) **Flight recorder.** Any type of recorder installed in the aircraft for the purpose of complementing accident/incident investigation.

(272) **Flight(s).** The period from take-off to landing.

(273) **Flight safety documents system.** A set of interrelated documentation established by the operator, compiling and organising information necessary for flight and ground operations and comprising, as a minimum, the OM and the operator's MCM.

(274) **Flight simulation training device (FSTD).** Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

(i) **Flight simulator.** Provides an accurate representation of the flight deck of a particular aircraft type or an accurate representation of the RPAS to the extent that the mechanical, electrical, electronic, etc., aircraft systems control functions; the normal environment of flight crew members; and the performance and flight characteristics of that type of aircraft are realistically simulated.

(ii) **Flight procedures trainer.** Provides a realistic flight deck environment or realistic RPAS environment and simulates instrument responses; simple control functions of mechanical, electrical, electronic, etc., aircraft systems; and the performance and flight characteristics of aircraft of a particular class.

(iii) **Basic instrument flight trainer.** Is equipped with appropriate instruments and simulates the flight deck environment of an aircraft in flight or the RPAS environment in instrument flight conditions.

(275) **Flight simulator.** See flight simulation training device (FSTD).

(276) **Flight status.** An indication of whether or not a given aircraft requires special handling by ATS units.

(277) **Flight time.** The period of time that an aircraft moves under its own power for the purpose of flight, ending when the aircraft comes to rest after it is parked, with engine(s) shut down, if applicable.

Note: Flight time, as defined here, is synonymous with the terms "block-to-block" time or "chock-to-chock" time in general usage and is measured from the time an aircraft moves from the loading point until it stops at the unloading point.

(278) **Flight time – aeroplanes.** The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

(279) **Flight time – glider.** The total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight.

(280) **Flight time – helicopters.** The total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight and the rotor blades are stopped.

(281) **Flight time — remotely piloted aircraft (RPA) systems.** The total time from the moment a C2 Link is established between the RPS and the RPA for the purpose of taking off or from the moment the remote pilot receives control following a handover until the moment the remote pilot completes a handover or the C2 Link between the RPS and the RPA is terminated at the end of the flight.

(282) **Flight training.** Training, other than ground training, received from an authorised instructor in flight in an aircraft.

(283) **Flight visibility.** The visibility forward from the flight deck of an aircraft in flight.

(284) **Foreign air operator.** Any air operator, other than a Curaçao air operator, that undertakes, whether directly or indirectly or by lease or any other arrangement, to engage in commercial air transport operations within the borders or airspace of Curaçao, whether on a scheduled or charter basis.

(285) **Foreign Authority.** The civil aviation authority that issues and oversees the AOC of the foreign operator.

(286) **Freight container.** See unit load device (ULD).

(287) **Freight container in the case of radioactive material transport.** An article of transport equipment designed to facilitate the transport of packaged goods by one or more modes of transport without intermediate reloading. It shall be of a permanent enclosed character, rigid and strong enough for repeated use, and shall be fitted with devices facilitating its handling, particularly in transfer between aircraft and from one mode of transport to another. A small freight container is one that has either an overall outer dimension less than 1.5 m or an internal volume of not more than 3 m^3. Any other freight container is considered to be a large freight container.

(288) **General aviation operation.** An aircraft operation other than a commercial air transport operation or an aerial work operation.

(289) **Glider.** A non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces that remain fixed under given conditions of flight.

(290) **Ground handling.** Services necessary for an aircraft's arrival at, and departure from, an aerodrome, other than ATS.

(291) **Ground proximity warning system (GPWS).** A warning system that uses radar altimeters to alert the pilots of hazardous flight conditions.

(292) **Ground visibility.** The visibility at an aerodrome, as reported by an accredited observer or by automatic systems.

(293) **Gyroplane.** A heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors that rotate freely on substantially vertical axes.

(294) **Handling agent.** An agency that performs on behalf of the operator some or all of the latter's functions, including receiving, loading, unloading, transferring, or other processing of passengers or cargo.

(295) **Handover.** As of 26 November 2026, the act of passing piloting control from one RPS to another.

(296) **Hazard.** A condition or an object with the potential to cause injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

(297) **Heading.** The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from north (true, magnetic, compass, or grid).

(298) **Head-up display (HUD).** A display system that presents flight information into the pilot's forward external field of view.

(299) **Heavier-than-air aircraft.** Any aircraft deriving its lift in flight chiefly from aerodynamic forces.

(300) **Height.** The vertical distance of a level, a point, or an object considered a point, measured from a specified datum.

(301) **Helicopter.** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

(i) Categories:

(A) **Category A.** A multi-engine helicopter designed with engine and system isolation features specified in ICAO Annex 8, Part IVB, and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off.

(B) **Category B.** A single-engine or multi-engine helicopter that does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed.

(ii) Performance classes:

(A) **Class 1 helicopter.** A helicopter with performance such that, in case of critical engine failure, it is able to land within the rejected take-off area or safely continue the flight to an appropriate landing area, depending on when the failure occurs.

(B) **Class 2 helicopter.** A helicopter with performance such that, in case of critical engine failure, it is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which case a forced landing may be required.

(C) **Class 3 helicopter.** A helicopter with performance such that, in case of engine failure at any point in the flight profile, a forced landing must be performed.

Note 1: See also the definitions for operations in performance Class 1, Class 2, and Class 3 below.

Note 2: Helicopters operating as Class 1 or 2 will be certified as Category A. Helicopters operating as Class 3 will be certified as either Category A or B (or equivalent).

Note 3: Some States use the term "rotorcraft" as an alternative to "helicopter."

(302) **Helideck.** A heliport located on a floating or fixed offshore structure.

(303) **Heliport.** An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure, and surface movement of helicopters.

(304) **Heliport operating minima.** The limits of usability of a heliport for:

(i) Take-off, expressed in terms of RVR and/or visibility and, if necessary, cloud conditions;

(ii) Landing in 2D instrument approach operations, expressed in terms of visibility and/or RVR, MDA/H, and if necessary, cloud conditions; and

(iii) Landing in 3D instrument approach operations, expressed in terms of visibility and/or RVR and DA/H as appropriate to the type and/or category of the operation.

(305) **High-risk cargo or mail.** Cargo or mail which is deemed to pose a threat to civil aviation as a result of specific intelligence; or shows anomalies or signs of tampering which give rise to suspicion.

(306) **High speed aural warning.** A speed warning that is required for turbine-engine aeroplanes and aeroplanes with a Vmo/Mmo greater than 0.80 Vdf/Mdf or Vd/Md.

(307) **Holdover time.** The estimated time de-icing or anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft. Holdover time begins when the final application of de-icing or anti-icing fluid commences and expires when the de-icing or anti-icing fluid applied to the aircraft loses its effectiveness.

(308) **Hostile environment.** An environment in which:

(i) A safe forced landing cannot be accomplished because the surface and surrounding environment are inadequate;

(ii) The helicopter occupants cannot be adequately protected from the elements;

(iii) Search and rescue response/capability is not provided consistent with anticipated exposure; or

(iv) There is an unacceptable risk of endangering persons or property on the ground.

(309) **Housing.** As relating to AMOs that are certificated in accordance with Part 6 of these regulations, buildings, hangars, and other structures to accommodate the necessary equipment and materials of a maintenance organisation and to:

(i) Provide working space for the performance of maintenance, overhaul, modification, repair, and inspection for which the maintenance organisation is approved and rated;

(ii) Provide structures for the proper protection of aircraft and aeronautical products during disassembly, cleaning, inspection, repair, modification, assembly, and testing; and

(iii) Provide for the proper storage, segregation, and protection of materials, parts, and supplies.

(310) **Human factors principles.** Principles that apply to aeronautical design, certification, training, operations, and maintenance and that seek safe interface between the human and other system components by proper consideration to human performance.

(311) **Human performance.** Human capabilities and limitations that have an impact on the safety and efficiency of aeronautical operations.

(312) **ICAO.** Where used in these regulations, an abbreviation for the International Civil Aviation Organization.

(313) **ICAO competency framework**. Developed by ICAO, it is a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviours.

(314) **IFR.** The symbol used to designate the instrument flight rules.

(315) **IFR flight.** A flight conducted in accordance with the instrument flight rules.

(316) **IMC.** The symbol used to designate instrument meteorological conditions.

(317) **Incident.** An occurrence, other than an accident, associated with the operation of an aircraft, that affects or could affect the safety of operations.

Note: The types of incidents that are of interest for safety-related studies include the incidents listed in ICAO Annex 13, Attachment C.

(318) **Includes.** A rule of construction defined in paragraph 1.1.1.1(a)(5) of this part as "includes but is not limited to."

(319) **Incompatible.** Describing dangerous goods that, if mixed, would be liable to cause a dangerous evolution of heat or gas or produce a corrosive substance.

(320) **Industry codes of practice.** Guidance material developed by an industry body for a particular sector of the aviation industry to comply with the requirements of the ICAO SARPs, other aviation safety requirements, and the best practices deemed appropriate.

Note: Some States accept and reference industry codes of practice in the development of regulations to meet the requirements of ICAO Annex 6, Part II, and ICAO Annex 19, and make available, for the industry codes of practice, their sources and how they may be obtained.

(321) **Inspection.** The examination of an aircraft or aeronautical product to establish conformity with a standard approved by the Authority.

(322) **Instructions for continuing airworthiness.** A set of descriptive data, maintenance planning, and accomplishment instructions, developed by a design approval holder in accordance with the certification basis for the product, providing operators with the necessary information for the development of their own maintenance programme and accomplishment instructions.

(323) **Instrument approach categories.**

(i) **Category I (CAT I) operation.** A precision instrument approach and landing with a DH not lower than 60 m (200 ft) and with either a visibility not less than 800 m or an RVR not less than 550 m.

(ii) **Category II (CAT II) operation.** A precision instrument approach and landing with a DH lower than 60 m (200 ft), but not lower than 30 m (100 ft), and an RVR not less than 300 m.

(iii) **Category III (CAT III) operation.** A DH lower than 30 m (100 ft) or no DH and an RVR less than 300 m or no RVR limitations.

(324) **Instrument approach operations.** An approach and landing using instruments for navigation guidance based on an IAP. There are two methods for executing instrument approach operations:

(i) A 2D instrument approach operation, using lateral navigation guidance only; and

(ii) A 3D instrument approach operation, using both lateral and vertical navigation guidance.

Note: Lateral and vertical navigation guidance refers to the guidance provided either by: (a) a ground-based radio navigation aid; or (b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.

(325) **Instrument approach procedure (IAP).** A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix or, where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply. IAPs are classified as follows:

(i) **Non-precision approach (NPA) procedure.** An IAP designed for 2D instrument approach operations Type A.

Note: NPA procedures may be flown using a CDFA technique. CDFAs with advisory VNAV guidance calculated by on-board equipment are considered 3D instrument approach operations. CDFAs with manual calculation of the required rate of descent are considered 2D instrument approach operations. For more information on CDFAs, refer to ICAO Doc 8168, PANS-OPS*, Volume I, Part II, Section 5.*

(ii) **Approach procedure with vertical guidance (APV).** A PBN IAP designed for 3D instrument approach operations Type A.

(iii) **Precision approach (PA) procedure.** An IAP based on navigation systems (ILS, MLS, GLS, and SBAS CAT I) designed for 3D instrument approach operations Type A or B.

Note: Refer to ICAO Annex 6 for instrument approach operation types.

(326) **Instrument flight rules (IFR).** The rules that allow properly equipped aircraft to be flown under IMC.

Note: IFR are detailed in ICAO Annex 2, Chapter 5.

(327) **Instrument flight time.** Time during which a pilot is piloting an aircraft, or a remote pilot is piloting an RPA, solely by reference to instruments and without external reference points.

(328) **Instrument ground time.** Time during which a pilot is practising, on the ground, simulated instrument flight in an FSTD approved by the Licensing Authority.

(329) **Instrument landing system (ILS).** A precision runway approach aid based on two radio beams which together provide pilots with both vertical and horizontal guidance during an approach to land.

(330) **Instrument meteorological conditions (IMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

(331) **Instrument time.** Time in which flight deck instruments are used as the sole means for navigation and control, which may be instrument flight time or instrument ground time.

(332) **Instrument training.** Training that is received from an authorised instructor under actual or simulated IMC.

(333) **Integrated survival suit.** A survival suit that meets the combined requirements of the survival suit and life jacket.

(334) **Interchange agreement.** A leasing agreement that permits an air carrier to dry lease and take or relinquish operational control of an aircraft at an aerodrome.

(335) **International commercial air transport.** The carriage by aircraft of persons or property for remuneration or hire or the carriage of mail between any two or more countries.

(336) **International operating agency.** An agency of the kind contemplated in Article 77 of the Convention on International Civil Aviation (Chicago Convention).

(337) **Investigation.** As relates to an aircraft accident or incident, a process conducted for the purpose of accident prevention that includes the gathering and analysis of information; the drawing of conclusions, including the determination of causes; and when appropriate, the making of safety recommendations.

(338) **Investigator-in-charge.** As relates to an aircraft accident or incident, a person charged, on the basis of that person's qualifications, with the responsibility for the organisation, conduct, and control of an investigation.

(339) **Isolated aerodrome.** A destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type.

(340) **Journey log.** A form signed by the PIC of each flight that records the aeroplane's registration, crew member names and duty assignments, the type of flight, and the date, place, and time of arrival and departure.

(341) **Knowledge test.** A test on the aeronautical knowledge areas required for an airman licence or rating that can be administered in written form or by a computer.

(342) **Land distance available (LDA).** The length of runway that is declared available and suitable for the ground run of an aeroplane landing.

(343) **Landing area.** That part of a movement area intended for the landing or take-off of aircraft.

(344) **Landing decision point (LDP).** The point used in determining the Class 1 helicopter's landing performance from which, an engine failure having been recognised at this point, the landing may be safely continued or a balked landing initiated.

(345) **Landing surface.** That part of the surface of an aerodrome that the aerodrome authority has declared available for the normal ground or water run of aircraft landing in a particular direction.

(346) **Large aeroplane.** An aeroplane having a maximum certificated take-off mass of over 5 700 kg (12 500 lbs.).

(347) **Level.** A generic term relating to the vertical position of an aircraft in flight and meaning, variously, height, altitude, or flight level.

(348) **Licensing Authority.** The Authority designated by a Contracting State as responsible for the licensing of personnel.

Note: In these regulations, the Licensing Authority is deemed to have been given the following responsibilities by the Contracting State:

- *Assessment of an applicant's qualifications to hold a licence or rating;*
- *Issue and endorsement of licences and ratings;*
- *Designation and authorisation of approved persons;*
- *Approval of training courses;*

- *Approval of the use of FSTDs and authorisation for their use in gaining the experience or demonstrating the skill required for the issue of a licence or rating; and*
- *Validation of licences issued by other Contracting States.*

(349) **Life-limited part.** Any part for which a mandatory replacement limit is specified in the type design, the instructions for continuing airworthiness, or the AMM.

(350) **Lighter-than-air aircraft.** Any aircraft supported chiefly by its buoyancy in the air.

(351) **Likely.** In the context of the medical requirements for licensing in Part 2 of these regulations, likely means a probability of occurring that is unacceptable to the medical assessor.

(352) **Limit load.** The maximum load assumed to occur in the anticipated operating conditions.

(353) **Line check.** A check given to a pilot by a check pilot to evaluate the pilot's operational competency during line operating flight time, in an aircraft type the pilot is qualified to fly, over a route and area in which the AOC holder is authorised to operate.

(354) **Line maintenance.** Any unscheduled maintenance resulting from unforeseen events, or scheduled checks containing servicing and/or inspections that do not require specialised training, equipment, or facilities.

(355) **Line operating flight time.** Flight time recorded by the PIC or CP while in revenue service for an AOC holder.

(356) **Load factor.** The ratio of a specified load to the weight of the aircraft, the former being expressed in terms of aerodynamic forces, inertia forces, or ground reactions.

(357) **Long-range overwater flights.** Routes on which an aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 740 km (400 NM), whichever is the lesser, away from land suitable for making an emergency landing.

(358) **Lost command and control link (C2 Link) decision time.** As of 26 November 2026, the maximum length of time permitted before declaring a lost C2 Link state during which the C2 Link performance is not sufficient to allow the remote pilot to actively manage the flight in a safe and timely manner appropriate to the airspace and operational conditions.

(359) **Lost command and control link (C2 Link) state.** As of 26 November 2026, the state of the RPAS in which the C2 Link performance has degraded, as a result of a C2 Link interruption that is longer than the lost C2 Link decision time, to a point where it is not sufficient to allow the remote pilot to actively manage the flight in a safe and timely manner.

(360) **Low-altitude wind shear warning and guidance system.** A system that will issue a warning of low-altitude wind shear and in some cases provide the pilot with guidance information of the escape manoeuvre.

(361) **Low-visibility operations (LVO).** Approach operations in RVRs less than 550 m and/or with a DH less than 60 m (200 ft) or take-off operations in RVRs less than 400 m.

(362) **Mach number indicator.** An indicator that shows airspeed as a function of the Mach number.

(363) **Maintenance.** Until 25 November 2026, the performance of tasks on an aircraft, engine, propeller, or associated part required to ensure the continuing airworthiness of an aircraft, engine, propeller, or associated part, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

(364) **Maintenance.** As of 26 November 2026, the performance of tasks on an aircraft, RPS, engine, propeller, or associated part required to ensure the continuing airworthiness of an aircraft, RPS, engine, propeller, or associated part, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair

(365) **Maintenance Control Manual (MCM).** A document that describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

(366) **Maintenance organisation's procedures manual.** A document endorsed by the head of the maintenance organisation that details the maintenance organisation's structure and management responsibilities, scope of work, description of facilities, maintenance procedures, and quality assurance programme or equivalent system of inspections.

(367) **Maintenance programme.** A document that describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies.

(368) **Maintenance release.** A document that contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner in accordance with appropriate airworthiness requirements.

(369) **Major modification.** With respect to an aeronautical product for which a TC has been issued, a change in the type design that has an appreciable effect, or other than a negligible effect, on the mass and balance limits, structural strength, powerplant operation, flight characteristics, reliability, operational characteristics, or other characteristics or qualities affecting the airworthiness or environmental characteristics of an aeronautical product.

(370) **Major repair.** A repair that (1) if improperly done might appreciably affect mass, balance, structural strength, performance, powerplant, operations, flight characteristics, or other qualities affecting airworthiness or (2) is not done according to accepted practices or cannot be done by elementary operations.

(371) **Manoeuvring area.** That part of an aerodrome to be used for the take-off, landing, and taxiing of aircraft, excluding ramps.

(372) **Master minimum equipment list (MMEL).** A list established for a particular aircraft type by the organisation responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations, or procedures. The MMEL provides the basis for development, review, and approval by the Authority of an individual operator's MEL.

(373) **Materially modified aircraft.** Aircraft having powerplants installed other than those for which it is certified or modifications to the aircraft or its components that materially affect flight characteristics.

(374) **Maximum certificated take-off mass.** The maximum permissible take-off mass of the aircraft according to the certificate of airworthiness, the flight manual, or other official document.

(375) **Maximum diversion time.** Maximum allowable range, expressed in time, from a point on a route to an en route alternate aerodrome.

(376) **Maximum certificated take-off mass.** The maximum permissible take-off mass of the aircraft according to the certificate of airworthiness, the flight manual, or other official document.

(377) **May.** A rule of construction in paragraph 1.1.1.1(a)(3) of this part that indicates that discretion can be used when performing an act described in a regulation.

(378) **Medical assessment.** The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness.

(379) **Medical certificate.** A document issued by the Authority as acceptable evidence of physical fitness as required for certain personnel licence holders.

(380) **Meteorological information.** A meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions.

(381) **Minimum descent altitude (MDA) or minimum descent height (MDH).** A specified altitude or height in a 2D instrument approach operation or circling approach operation below which descent must not be made without the required visual reference.

Note 1: MDA is referenced to MSL and MDH is referenced to the aerodrome elevation or to the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An MDH for a circling approach is referenced to the aerodrome elevation.

Note 2: The required visual reference means that section of the visual aids or of the approach area that should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position in relation to the desired flight path. In the case of a circling approach, the required visual reference is the runway environment.

Note 3: For convenience, when both expressions are used they may be written in the form "minimum descent altitude/height" and abbreviated "MDA/H."

(382) **Minimum equipment list (MEL).** A list approved by the Authority that provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.

(383) **Minister.** The Minister responsible for civil aviation, as identified in the Luchtvaartlandsverordening (the Civil Aviation Act).

(384) **Minor modification.** A modification other than a major modification.

(385) **Modification.** The alteration of an aircraft/aeronautical product in conformity with an approved standard.

(386) **Monitoring**. A cognitive process to compare an actual to an expected state.

Note: Monitoring is embedded in the competencies for a given role within an aviation discipline, which serve as countermeasures in the threat and error management model. It requires knowledge, skills, and attitudes to create a mental model and to take appropriate action when deviations are recognised.

(387) **Movement area.** That part of an aerodrome to be used for take-off, landing, and taxiing of aircraft, consisting of the manoeuvring area and the ramp(s).

(388) **Navigable airspace.** The airspace above the minimum altitudes of flight prescribed in Part 8 of these regulations; includes airspace needed to ensure safety in the take-off and landing of aircraft.

(389) **Navigation of aircraft.** A function that includes the piloting of aircraft.

(390) **Navigation specification.** A set of aircraft and flight crew requirements needed to support PBN operations within a defined airspace. There are two kinds of navigation specifications:

(i) **Required navigation performance (RNP) specification.** A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP (e.g., RNP 4, RNP APCH).

(ii) **Area navigation (RNAV) specification.** A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV (e.g., RNAV 5, RNAV 1).

Note 1: ICAO Doc 9613, Performance-based Navigation (PBN) Manual*, Volume II, contains detailed guidance on navigation specifications.*

Note 2: The term RNP, previously defined as "a statement of the navigation performance necessary for operation within a defined airspace," has been removed from these regulations, as the concept of RNP has been overtaken by the concept of PBN. The term RNP is now solely used in the context of navigation specifications that require performance monitoring and alerting; for example, RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting, that are detailed in ICAO Doc 9613.

(391) **Night.** The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.

Note: Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.

(392) **Nominal command and control link (C2 Link) state.** As of 26 November 2026, the state of the RPAS when the C2 Link performance is sufficient to allow the remote pilot to actively manage the flight of the RPA in a safe and timely manner appropriate to the airspace and operational conditions.

(393) **Non-congested hostile environment.** A hostile environment outside a congested area.

(394) **Non-hostile environment.** An environment in which:

(i) A safe forced landing can be accomplished because the surface and surrounding environment are adequate;

(ii) Occupants can be adequately protected from the elements;

(iii) Search and rescue response/capability is provided consistent with anticipated exposure; and

(iv) The assessed risk of endangering persons or property on the ground is acceptable.

Note: Those parts of a congested area satisfying the above requirements are considered non-hostile.

(395) **Non-precision approach (NPA) procedure.** An IAP designed for 2D instrument approach operations Type A.

Note: NPA procedures may be flown using a CDFA. CDFA with advisory VNAV guidance calculated by on-board equipment (see ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), *Volume I,* Flight Procedures, *Part I, Section 4, Chapter 1, paragraph 1.8.1) are considered 3D instrument approach operations. CDFA with manual calculation of the required rate of descent are considered 2D instrument approach operations.*

(396) **NOTAM.** A notice distributed by means of telecommunication containing information concerning the establishment, condition, or change in any aeronautical facility, service, procedure, or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

(397) **Observable behaviour (OB)**. A single role-related behaviour that can be observed and may or may not be measurable.

(398) **Obstacle clearance altitude (OCA) or obstacle clearance height (OCH).** The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation, as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

Note 1: OCA is referenced to MSL and OCH is referenced to the threshold elevation or, in the case of NPA procedures, to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An OCH for a circling approach procedure is referenced to the aerodrome elevation.

Note 2: For convenience, when both expressions are used, they may be written in the form "obstacle clearance altitude/height" and abbreviated "OCA/H."

(399) **Obstruction clearance plane.** A plane sloping upward from the runway at a slope of 1:20 to the horizontal and tangent to or clearing all obstructions within a specified area surrounding the runway as shown in a profile view of that area. In the plane view, the centre line of the specified area coincides with the centre line of the runway, beginning at the point where the obstruction clearance plane intersects the centre line of the runway and proceeding to a point at least 450 m (1 500 ft) from the beginning point. Thereafter, the centre line coincides with the take-off path over the ground for the runway (in the case of take-offs) or with the instrument approach counterpart (for landings), or where the applicable one of these paths has not been established, it proceeds consistent with turns of at least a 1.2-km (4 000-ft) radius until a point is reached beyond which the obstruction clearance plane clears all obstructions. This area extends laterally 60 m (200 ft) on each side of the centre line at the point where the obstruction clearance plane intersects the runway and continues at this width to the end of the runway; then it increases uniformly to 150 m (500 ft) on each side of the centre line at a point 450 m (1 500 ft) from the intersection of the obstruction clearance plane with the runway; thereafter, it extends laterally 150 m (500 ft) on each side of the centre line.

(400) **Offshore operations.** Operations that routinely have a substantial proportion of the flight conducted over sea areas to or from offshore locations. Such operations include support of offshore oil, gas, and mineral exploitation and sea-pilot transfer.

(401) **Operating base.** The location from which operational control is exercised.

Note: An operating base is normally the location where personnel involved in the operation of the aeroplane work and where the records associated with the operation are located. An operating base has a degree of permanency beyond that of a regular point of call.

(402) **Operation.** An activity or group of activities that are subject to the same or similar hazards and require a set of equipment to be specified, or the achievement and maintenance of a set of pilot competencies, to eliminate or mitigate the risk of such hazards.

Note 1: Such activities could include offshore operations, heli-hoist operations, or emergency medical service.

(403) **Operational control.** The exercise of authority over the initiation, continuation, diversion, or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

(404) **Operational credit.** A credit authorised for operations with an advanced aircraft enabling a lower aerodrome operating minimum than would normally be authorised for a basic aircraft, based upon the performance of advanced aircraft systems utilising the available infrastructure.

(405) **Operational flight plan.** The operator's plan for the safe conduct of the flight based on considerations of aircraft performance, other operating limitations, and relevant expected conditions on the route to be followed and at the aerodromes or heliports concerned.

(406) **Operational personnel.** Personnel involved in aviation activities who are in a position to report safety information.

Note: Such personnel include flight crews, air traffic controllers, aeronautical station operators, maintenance technicians, personnel of aircraft design and manufacturing organisations, cabin crews, flight dispatchers, ramp personnel, and ground handling personnel.

(407) **Operations in performance Class 1.** Helicopter operations with performance such that, in the event of critical engine failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, unless the failure occurs prior to reaching the take-off decision point or after passing the LDP, in which cases the helicopter must be able to land within the rejected take-off or landing area.

(408) **Operations in performance Class 2.** Helicopter operations with performance such that, in the event of critical engine failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required.

(409) **Operations in performance Class 3.** Helicopter operations with performance such that, in the event of an engine failure at any time during the flight, a forced landing will be required.

(410) **Operations Manual (OM).** A manual containing procedures, instructions, and guidance for use by operational personnel in the execution of their duties.

(411) **Operations specifications (AOC).** The authorisations including specific approvals, conditions, and limitations associated with the AOC and subject to the conditions in the OM.

(412) **Operations specifications (AMO).** A part of the AMO certificate used to administer safety standards and define the terms, conditions, and limitations within which the AMO shall conduct business operations.

Note: Operations specifications are issued by the Authority and are considered a legal, contractual agreement between the Authority and the AMO.

(413) **Operator.** ~~A~~ person, organisation, or enterprise engaged in or offering to engage in an aircraft operation. The person who causes or authorises the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft, and/or the PIC.

Note: In the context of RPA, an aircraft operation includes the RPAS.

(414) **Operator's Maintenance Control Manual (MCM).** A document that describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

(415) **Organisation responsible for the type design.** Until 25 November 2026, the organisation that holds the TC, or an equivalent document, for an aircraft, engine, or propeller type, issued by a Contracting State.

(416) **Organisation responsible for the type design.** As of 26 November 2026, the organisation that holds the TC, or an equivalent document, for an aircraft, RPS, engine, or propeller type, issued by a Contracting State.

(417) **Ornithopter.** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on aeroplanes to which a flapping motion is imparted.

(418) **Overhaul.** The restoration of an aircraft/aeronautical product to a condition that will give a reasonable assurance of operation for a specified amount of time using methods, techniques, and practices acceptable to the Authority, including disassembly, cleaning, inspection, repair, reassembly; and testing.

(419) **Overpack.** An enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

(420) **Package.** The complete product of the packing operation, consisting of the packaging and its contents prepared for transport.

(421) **Packaging.** Receptacles and any other components or materials necessary for the receptacle to perform its containment function.

(422) **Passenger aircraft.** An aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorised representative of an appropriate national authority, or a person accompanying a consignment or other cargo.

(423) **Passenger exit seats.** Those seats having direct access to an exit, and those seats in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit. A passenger seat having "direct access" means a seat from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction.

(424) **Performance-based aerodrome operating minimum (PBAOM).** A lower aerodrome operating minimum, for a given take-off, approach, or landing operation, than is available when using a basic aircraft.

Note 1: The PBAOM is derived by considering the combined capabilities of the aircraft and available ground facilities. Additional guidance material on PBAOM may be found in ICAO Doc 9365, Manual of All-Weather Operations*.*

Note 2: The PBAOM is not limited to PBN operations.

(425) **Performance-based communication (PBC).** Communication based on performance specifications applied to the provision of ATS.

Note: An RCP specification includes communication performance requirements that are allocated to system components in terms of the communication to be provided and the associated transaction time, continuity, availability, integrity, safety, and functionality needed for the proposed operation in the context of a particular airspace concept.

(426) **Performance-based navigation (PBN).** Area navigation based on performance requirements for aircraft operating along an ATS route, on an IAP, or in a designated airspace.

Note: Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability, and functionality needed for the proposed operation in the context of a particular airspace concept.

(427) **Performance-based surveillance (PBS).** Surveillance based on performance specifications applied to the provision of ATS.

Note: An RSP specification includes surveillance performance requirements that are allocated to system components in terms of the surveillance to be provided and the associated data delivery time, continuity, availability, integrity, accuracy of the surveillance data, safety, and functionality needed for the proposed operation in the context of a particular airspace concept.

(428) **Performance Class 1 helicopter.** A helicopter with performance such that, in case of engine failure, it is able to land on the rejected take-off area or safely continue the flight to an appropriate landing area.

(429) **Performance Class 2 helicopter.** A helicopter with performance such that, in case of engine failure, it is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which cases a forced landing may be required.

(430) **Performance Class 3 helicopter.** A helicopter with performance such that, in case of engine failure at any point in the flight profile, a forced landing must be performed.

(431) **Performance criteria.** Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s), and a competency standard.

(432) **Person.** Any individual, firm, partnership, corporation, company, association, joint stock association, or body politic, including any trustee, receiver, assignee, or other similar representative of these entities.

(433) **Pilot flying (PF).** The pilot whose primary task is to control and manage the flight path. The secondary tasks of the PF are to perform non-flight-path-related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members.

(434) **Pilot-in-command (PIC).** The pilot responsible for the operation and safety of the aircraft during flight time. The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

(435) **Pilot-in-command (PIC) under supervision.** A CP performing, under the supervision of the PIC, the duties and functions of a PIC, in accordance with a method of supervision acceptable to the Licensing Authority.

(436) **Pilot monitoring (PM).** The pilot whose primary task is to monitor the flight path and its management by the PF. The secondary tasks of the PM are to perform non-flight-path-related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members.

(437) **Pilot time.** That time a person:

(i) Serves as a required pilot;

(ii) Receives training from an authorised instructor in an aircraft or an approved FSTD; or

(iii) Provides training as an authorised instructor in an aircraft or an approved FSTD.

(438) **Pilot (to).** To manipulate the flight controls of an aircraft during flight time.

(439) **Point of no return.** The last possible geographic point at which an aircraft can proceed to the destination aerodrome as well as to an available en route alternate aerodrome for a given flight.

(440) **Policy.** A document containing a position or stance regarding a specific issue.

(441) **Procedure.** A step-by-step logical progression of actions and decisions to achieve an objective.

(442) **Process.** A set of interrelated or interacted activities that transforms inputs into outputs.

(443) **Powered-lift.** A heavier-than-air aircraft capable of vertical take-off, vertical landing, and low-speed flight that depends principally on engine-driven lift devices or engine thrust for lift during these flight regimes and on non-rotating aerofoil(s) for lift during horizontal flight.

(444) **Powerplant.** An engine that is used or intended to be used for propelling aircraft. It includes turbo superchargers, appurtenances, and accessories necessary for its functioning but does not include propellers.

(445) **Power unit.** A system of one or more engines and ancillary parts that are together necessary to provide thrust, independently of the continued operation of any other power unit(s), but not including short period thrust-producing devices.

(446) **Practical test.** See Skill test.

(447) **Precision approach (PA) procedure.** An IAP based on navigation systems (ILS, MLS, GLS, and SBAS CAT I) designed for 3D instrument approach operations Type A or B.

Note: Refer to ICAO Annex 6, Part I: 4.2.8.3, for instrument approach operation types.

(448) **Pre-flight inspection.** The inspection carried out before flight to ensure that the aircraft is fit for the intended flight.

(449) **Prescribed.** A rule of construction in paragraph 1.1.1.1(a)(8) of this part that means the Authority has issued written policy or methodology that imposes either a mandatory requirement, if the written policy or methodology states “shall,” or a discretionary requirement, if the written policy or methodology states “may.”

(450) **Pressure altitude.** An atmospheric pressure expressed in terms of altitude, which corresponds to that pressure in the Standard Atmosphere.

(451) **Pressurised aircraft.** For airman-licensing purposes, an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25 000 ft MSL.

(452) **Preventive maintenance.** Simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations.

(453) **Primary standard.** A standard defined and maintained by a State Authority and used to calibrate secondary standards.

(454) **Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in a way that:

(i) Constitutes a direct hazard to the user or endangers the lives, health, or welfare of others; and/or

(ii) Causes or worsens an occupational, social, mental, or physical problem or disorder.

(455) **Proficiency check.** A competency test by a licence holder on the areas of operation contained in the skill test for a particular licence, certificate, rating, or authorisation that is conducted by an authorised representative of the Authority.

(456) **Prohibited area.** An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.

(457) **Propeller.** A device for propelling an aircraft that has blades on a powerplant-driven shaft and, when rotated, produces by its action on the air a thrust approximately perpendicular to its plane of rotation. It includes control components normally supplied by its manufacturer but does not include main and auxiliary rotors or rotating aerofoils of powerplants.

(458) **Proper shipping name.** The name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging.

(459) **Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, excluding coffee and tobacco.

(460) **Public aircraft.** An aircraft used exclusively in the service of any government or of any political jurisdiction thereof, including the Government of Curaçao, but not including any government-owned aircraft engaged in operations that meet the definition of commercial air transport operations.

(461) **Qualification-based training.** Training designed to ensure that graduates demonstrate the necessary minimum skill, knowledge, and experience levels to meet the qualification requirements of the licence, rating, or privilege.

(462) **Quality.** The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

(463) **Quality assurance.** As distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions that are required to provide adequate confidence that a product or service satisfies quality requirements.

(464) **Quality audit.** A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

(465) **Quality control.** The regulatory inspection process through which actual performance is compared with standards, such as the maintenance of standards of manufactured aeronautical products, and any difference is acted upon.

(466) **Quality inspection.** That part of quality management involving quality control. In other words, inspections accomplished to observe events, actions, documents, etc., in order to verify whether established operational procedures and requirements are fulfilled during the accomplishment of the event or action and whether the required standard is achieved. Student stage checks and skill tests are quality inspections, and they are also quality control functions.

(467) **Quality management.** A management approach focused on the means to achieve product or service quality objectives through the use of its four key components: quality planning, quality control, quality assurance, and quality improvement.

(468) **Quality manager.** The manager responsible for the monitoring function and for requesting remedial action.

(469) **Quality Manual.** The document containing the relevant information pertaining to the organisation's quality system.

(470) **Quality of service delivered (QoSD).** As of 26 November 2026, a statement of the QoS achieved or delivered to the RPAS operator by the C2CSP.

(471) **Quality of service required (QoSR).** As of 26 November 2026, a statement of the QoS requirements of the RPAS operator to the C2CSP.

Note: The QoSR may be expressed in descriptive terms (criteria) listed in the order of priority, with preferred performance value for each criterion. The C2CSP then translates these into parameters and metrics pertinent to the service.

(472) **Quality of training.** The outcome of the training that meets stated or implied needs within the framework of set standards.

(473) **Quality system.** The set of policies, processes and procedures required for the planning and execution of safe and efficient air operations. The system integrates the various internal processes and enables the organisation to identify, measure, control and improve the effectiveness and safety of its activities.

(474) **Radiotelephony.** A form of radiocommunication primarily intended for the exchange of information in the form of speech.

(475) **Ramp.** A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail, or cargo; fuelling; parking; or maintenance.

(476) **Rated air traffic controller.** An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.

(477) **Rating.** An authorisation entered on or associated with a licence or certificate and forming part thereof, stating special conditions, privileges, or limitations pertaining to such licence or certificate.

(478) **Reference standard.** A standard that is used to maintain working standards.

(479) **Reissue of a licence, rating, authorisation, or certificate.** The administrative action taken after a licence, rating, authorisation, or certificate has lapsed that reissues the privileges of the licence, rating, authorisation, or certificate for a further specified period contingent upon the fulfilment of specified requirements.

(480) **Remote co-pilot (CP).** A licensed remote pilot serving in any piloting capacity other than as remote PIC but excluding a remote pilot who is in the RPS for the sole purpose of receiving flight instruction.

(481) **Remote flight crew member.** A licensed flight crew member charged with duties essential to the operation of an RPAS during a flight duty period.

(482) **Remotely piloted aircraft (RPA).** An unmanned aircraft that is piloted from an RPS.

(483) **Remotely piloted aircraft system (RPAS).** An RPA, its associated RPSs, the required C2 Link(s), and any other components as specified in the type design.

(484) **Remote pilot.** A person charged by the operator with duties essential to the operation of an RPA and who manipulates the flight controls, as appropriate, during flight time.

(485) **Remote pilot-in-command (PIC).** The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

(486) **Remote pilot station (RPS).** The component of the RPAS containing the equipment used to pilot the RPA.

(487) **Rendering (a certificate of airworthiness) valid.** The action taken by a Contracting State, as an alternative to issuing its own certificate of airworthiness, in accepting a certificate of airworthiness issued by any other Contracting State as the equivalent of its own certificate of airworthiness. Also referred to as validation.

(488) **Rendering (a licence) valid.** The action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence. Also referred to as validation.

(489) **Renewal of licence, rating, authorisation, or certificate.** The administrative action taken within the period of validity of a licence, rating, authorisation, or certificate that allows the holder to continue to exercise the privileges of a licence, rating, authorisation, or certificate for a further specified period contingent upon the fulfilment of specified requirements.

(490) **Repair.** The restoration of an aircraft, engine, propeller, associated part, or, as of 26 November 2026, an RPS, to an airworthy condition in accordance with the appropriate airworthiness requirements, after it has been damaged or subjected to wear.

(491) **Repetitive flight plan (RPL).** A flight plan related to a series of frequently recurring, regularly operated individual flights with identical basic features, submitted by an operator for retention and repetitive use by ATC or ATS units.

(492) **Reporting point.** A specified geographical location in relation to which the position of an aircraft can be reported.

(493) **Required communication performance (RCP) specification.** A set of requirements for ATS provision and associated ground equipment, aircraft capability, and operations needed to support PBC.

(494) **Required inspection.** As used in Part 5 of these regulations, maintenance items and/or modifications that shall be inspected by a person other than the person performing the work and shall include at least those that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not properly performed or if improper parts or materials are used.

(495) **Required surveillance performance (RSP) specification.** A set of requirements for ATS provision and associated ground equipment, aircraft capability, and operations needed to support PBS.

(496) **Rest period.** A continuous and defined period of time, subsequent to and/or prior to duty, during which flight or cabin crew members are free of all duties.

(497) **Restricted area.** An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

(498) **Risk mitigation.** The process of incorporating defences or preventive controls to lower the severity and/or likelihood of a hazard's projected consequence.

(499) **Rotorcraft.** A power-driven, heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

(500) **Rotorcraft Flight Manual (RFM).** A manual, associated with the certificate of airworthiness, containing limitations within which the rotorcraft is to be considered airworthy and instructions and information necessary to the flight crew members for the safe operation of the rotorcraft.

(501) **Rotorcraft load combinations.** Configurations for external loads carried by rotorcraft:

(i) **Class A.** External load fixed to the rotorcraft, cannot be jettisoned, and does not extend below the landing gear, used to transport cargo.

(ii) **Class B.** External load suspended from the rotorcraft, can be jettisoned, and is transported free of land or water during rotorcraft operations.

(iii) **Class C.** External load suspended from the rotorcraft, can be jettisoned, but remains in contact with land or water during rotorcraft operation.

(iv) **Class D.** External load suspended from the rotorcraft for the carriage of persons.

(502) **Route sector.** A flight comprising take-off, departure, cruise of not less than 15 minutes, arrival, approach, and landing phases.

(503) **RPA observer.** A trained and competent person designated by the operator, who, by visual observation of the RPA, assists the remote pilot in the safe conduct of the flight.

(504) **Route stage.** A route or portion of a route flown without an intermediate landing.

(505) **Runway.** A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

(506) **Runway-holding position.** A designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower.

(507) **Runway visual range (RVR).** The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

(508) **Safe forced landing.** Unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface.

(509) **Safety.** The state in which risks associated with aviation activities, related to or in direct support of the operations of aircraft, are reduced and controlled to an acceptable level.

(510) **Safety data.** A defined set of facts or set of safety values collected from various aviation-related sources, which when analysed is used to maintain or improve safety.

Note: Such safety data is collected from proactive or reactive safety-related activities, including:

- *Accident or incident investigations;*
- *Safety reporting;*
- *Continuing airworthiness reporting;*
- *Operational performance monitoring;*
- *Inspections, audits, and surveys; or*
- *Safety studies and reviews.*

(511) **Safety information.** Safety data processed, organised, or presented in a given context so as to make it useful for the purpose of sharing, exchanging, or retaining for safety management.

(512) **Safety management system (SMS).** A systematic approach to managing safety, including the necessary organisational structures, accountability, responsibilities, policies, and procedures.

(513) **Safety oversight.** A function, performed by a State, that ensures that aviation licence, certificate, authorisation, or approval holders comply with safety-related standards, regulations, and associated procedures and includes the assessment of the service providers' SMS where necessary.

(514) **Safety performance.** A State or service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

(515) **Safety performance indicator.** A data-based parameter used for monitoring and assessing safety performance.

(516) **Safety performance target.** A State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

(517) **Safety programme.** An integrated set of regulations and activities aimed at improving safety.

(518) **Safety recommendation.** A proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.

(519) **Safety risk.** The predicted probability and severity of the consequences or outcomes of a hazard.

(520) **Safety-sensitive personnel.** Persons who might endanger aviation safety if they perform their duties and functions improperly, including crew members, aircraft maintenance personnel, and air traffic controllers.

(521) **Satellite approved training organisation (ATO).** An ATO at a location other than the ATO's principal place of business.

(522) **Satisfactory evidence.** A set of documents or activities that a Contracting State accepts as sufficient to show compliance with an airworthiness requirement.

(523) **Screening.** The application of technical or other means that are intended to identify and/or detect weapons, explosives, or other dangerous devices, articles, or substances that may be used to commit an act of unlawful interference.

Note 1: Certain dangerous articles or substances are classified as dangerous goods by ICAO Annex 18 and the Technical Instructions, and must be transported in accordance with those instructions. In addition, ICAO Doc 8973, Restricted – Aviation Security Manual, *provides a list of prohibited items that shall never be carried in the cabin of an aircraft.*

Note 2: See definition below for Technical Instructions.

(524) **Secondary standards.** A standard maintained by comparison with a primary standard.

(525) **Security audit.** An in-depth compliance examination of all aspects of the implementation of the national civil aviation security programme.

(526) **Security control.** A means by which the introduction of weapons, explosives, or other dangerous devices, articles, or substances that may be used to commit an act of unlawful interference can be prevented.

(527) **Security culture.** A set of security-related norms, values, attitudes, and assumptions that are inherent in the daily operation of an organisation and are reflected by the actions and behaviours of all entities and personnel within the organisation.

(528) **Security inspection.** An announced or unannounced examination of the effectiveness of the implementation of specific security measures.

(529) **Security restricted area.** Those areas of the airside of an aerodrome that are identified as priority risk areas where in addition to access control, other security controls are applied.

(530) **Security test.** A covert or overt trial of an aviation security measure that simulates an attempt to commit an unlawful act.

(531) **Series of flights.** Consecutive flights that:

(i) Begin and end within a period of 24 hours; and

(ii) Are all conducted by the same PIC.

(532) **Serious incident.** An incident involving circumstances indicating that an accident nearly occurred.

(533) **Serious injury.** An injury that is sustained by a person in an accident and that:

(i) Requires hospitalisation for more than 48 hours, commencing within 7 days from the date the injury was received;

(ii) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);

(iii) Involves lacerations that cause severe hemorrhage, nerve, muscle, or tendon damage;

(iv) Involves injury to any internal organ;

(v) Involves second- or third-degree burns or any burns affecting more than 5 per cent of the body surface; or

(vi) Involves verified exposure to infectious substances or injurious radiation.

(534) **Shall.** A rule of construction defined in paragraph 1.1.1.1(a)(1) of this part as indicating a mandatory requirement.

(535) **Signal area.** An area on an aerodrome used for the display of ground signals.

(536) **Sign an approval for return to service (to).** To certify that maintenance work has been completed satisfactorily in accordance with appropriate airworthiness requirements by issuing the approval for return to service referred to in CCAR Parts 6 and 9 of these regulations.

(537) **Signature.** An individual's unique identification used as a means of authenticating a record entry or record. A signature may be handwritten, electronic, or in any other form acceptable to the Authority.

(538) **Significant.** In the context of the medical provisions in subpart 2.11 of these regulations, significant means to a degree or of a nature that is likely to jeopardise flight safety.

(539) **Skill test.** A competency test on the areas of operation for a licence, certificate, rating, or authorisation that is conducted by having the applicant respond to questions and demonstrate manoeuvres in flight, in an approved FSTD, or in a combination of these.

(540) **Small aeroplane.** An aeroplane having a maximum certificated take-off mass of 5 700 kg or less.

(541) **SNOWTAM.** A special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water, or water associated with snow, slush, ice, or frost on the movement area.

(542) **Solo flight.** Flight time during which a student pilot is the sole occupant of the aircraft or flight time during which the student acts as a PIC of a gas balloon or an airship requiring more than one flight crew member.

(543) **Solo flight time.** Flight time during which a student pilot is the sole occupant of an aircraft.

(544) **Solo flight time – remotely piloted aircraft (RPA) systems.** Flight time during which a student remote pilot is controlling the RPAS, acting solo.

(545) **Spare parts.** Any parts, appurtenances, and accessories of aircraft (other than aircraft engines and propellers), aircraft engines (other than propellers), propellers, and appliances that are maintained for installation or use in an aircraft, aircraft engine, propeller, or appliance but at the time are not installed therein or attached thereto.

(546) **Special aircraft jurisdiction of Curaçao.** This includes:

(i) Civil aircraft of Curaçao; and

(ii) Any other aircraft within the jurisdiction of Curaçao, while the aircraft is in flight, which is from the moment when all external doors are closed following embarkation until the moment when one such door is opened for disembarkation or, in the case of a forced landing, until the competent authorities take over the responsibility of the aircraft and the persons and property aboard.

(547) **Special curricula.** A closely supervised, systematic, and continuous course of training, conforming to a planned syllabus or curriculum and conducted in an ATO.

Note: The definition of special curricula has been derived from the note to ICAO Annex 1: 1.2.8.

(548) **Specialised maintenance.** Any maintenance not normally performed by an AMO (e.g., tire retreating, plating).

(549) **Special VFR flight.** A VFR flight cleared by ATC to operate within a control zone in meteorological conditions below VMC.

(550) **Specific approval.** An approval that is documented in the operations specifications for commercial air transport operations or in the list of specific approvals for non-commercial operations.

Note: The terms "authorisation," "specific approval," "approval," and "acceptance" are further described in ICAO Annex 6, Part I, Attachment D; ICAO Annex 6, Part II, Attachment 3.D; and ICAO Annex 6, Part III, Attachment C.

(551) **Standard atmosphere.** An atmosphere defined as follows:

(i) The air is a perfect dry gas;

(ii) The physical constants are:

(A) Sea level mean molar mass: $M_0 = 28.964\ 420 \times 10^{-3}$ kg mol^{-1}

(B) Sea level atmospheric pressure: $P_0 = 1\ 013.250$ hPa

(C) Sea level temperature: $t_0 = 15°C$

$T_0 = 288.15$ K

(D) Sea level atmospheric density: $\rho_0 = 1.225\ 0$ kg m^{-3}

(E) Temperature of the ice point: $T_i = 273.15$ K

(F) Universal gas constant: $R^* = 8.314\ 32$ JK^{-1}mol^{-1}

(iii) The temperature gradients are:

Geopotential altitude (km)		*Temperature gradient (Kelvin per standard geopotential kilometre)*
From	*To*	
–5.0	11.0	–6.5
11.0	20.0	0.0
20.0	32.0	+1.0
32.0	47.0	+2.8
47.0	51.0	0.0
51.0	71.0	–2.8
71.0	80.0	–2.0

Note 1: The standard geopotential metre has the value 9.806 65 $m^2 s^{-2}$.

Note 2: See ICAO Doc 7488, Manual of the ICAO Standard Atmosphere (extended to 80 kilometres (262 500 feet)), *for the relationship between the variables and for tables giving the corresponding values of temperature, pressure, density, and geopotential.*

Note 3: ICAO Doc 7488 also gives the specific weight, dynamic viscosity, kinematic viscosity, and speed of sound at various altitudes.

(552) **State of Design.** The State having jurisdiction over the organisation responsible for the type design.

(553) **State of Design of Modification**. The State having jurisdiction over the individual or organisation responsible for the design of the modification or repair of an aircraft, engine, propeller, or, as of 25 November 2026, an RPS.

(554) **State of Destination.** As relating to dangerous goods, the State in the territory of which the dangerous goods consignment is finally to be unloaded from an aircraft.

(555) **State of Manufacture.** Until 25 November 2026, the State having jurisdiction over the organisation responsible for the final assembly of the aircraft, engine, or propeller.

(556) **State of Manufacture.** As of 26 November 2026, the State having jurisdiction over the organisation responsible for the final assembly of the aircraft, RPS, engine, or propeller.

(557) **State of Occurrence.** The State in the territory of which an accident or incident occurs.

(558) **State of Origin.** As relating to dangerous goods, the State in which dangerous goods were first loaded on an aircraft.

(559) **State of Registry.** The State on whose register the aircraft is entered.

Note: In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations that, under the Chicago Convention, are attached to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies, which can be found in ICAO Doc 9587, Policy and Guidance Material on the Economic Regulation of International Air Transport.

(560) **State of the Aerodrome.** The State in whose territory the aerodrome is located.

(561) **State of the Operator.** The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

(562) **State of the principal location of a general aviation operator.** The State in which the operator of a general aviation aircraft has its principal place of business or, if there is no such place of business, its permanent residence.

Note: Guidance concerning the options for the principal location of a general aviation operator is contained in ICAO Doc 10059, Manual on the Implementation of Article 83 *bis* of the Convention on International Civil Aviation.

(563) **State safety programme (SSP).** An integrated set of regulations and activities aimed at improving safety.

(564) **Stores (supplies).** Stores (supplies) (a) for consumption and (b) to be taken away.

(565) **Substantial damage.** Damage or failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft and that would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage for the purpose of this substantial damage relating to an aircraft accident.

(566) **Surveillance.** The State activities through which the State proactively verifies through inspections and audits that aviation licence, certificate, authorisation, or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State.

(567) **Switchover.** As of 26 November 2026, the act of transferring the active datalink path between RPS and the RPA from one of the links or networks that constitutes the C2 Link to another link or network that constitutes the C2 Link.

(568) **Syllabus (training).** As of 26 November 2026, the detailed summary or outline describing the main points of a course.

(569) **Synthetic flight trainer.** See flight simulation training device (FSTD).

(570) **Synthetic vision system (SVS).** A system to display data-derived synthetic images of the external scene from the perspective of the flight deck.

(571) **Take-off and initial climb phase.** That part of the flight from the start of take-off to 300 m (1 000 ft) above the elevation of the FATO, if the flight is planned to exceed this height, or to the end of the climb in the other cases.

(572) **Take-off decision point.** The point used in determining take-off performance from which, a power-unit occurring at this point, either a rejected take-off may be made or a take-off may be safely continued. TDP applies to performance Class 1 helicopters.

(573) **Take-off safety speed for Category A rotorcraft (VTOSS).** As it pertains to rotary-wing aircraft, the minimum speed at which climb shall be achieved with the critical engine inoperative, the remaining engines operating within approved operating limits.

Note: The speed referred to above may be measured by instrument indications or achieved by a procedure specified in the flight manual.

(574) **Take-off surface.** The part of the surface of an aerodrome that the aerodrome authority has declared available for the normal ground or water run of aircraft taking off in a particular direction.

(575) **Target level of safety (TLS).** A generic term representing the level of risk that is considered acceptable in particular circumstances.

(576) **Taxiing.** Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.

(577) **Taxiway.** A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

(i) **Aircraft stand taxilane.** A portion of a ramp designated as a taxiway and intended to provide access to aircraft stands only.

(ii) **Ramp taxiway.** A portion of a taxiway system located on a ramp and intended to provide a through taxi route across the ramp.

(iii) **Rapid exit taxiway.** A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways, thereby minimising runway occupancy times.

(578) **Technical Instructions.** ICAO Doc 9284, *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, including the supplement and any addendum approved and issued periodically by the ICAO Council.

Note: The term "Technical Instructions" is used in these regulations.

(579) **Terminal control area.** A control area normally established at the confluence of ATC routes in the vicinity of one or more major aerodromes.

(580) **Terrain awareness warning system.** A system that provides the flight crew with sufficient information and alerts to detect a potentially hazardous terrain situation so the flight crew may take effective action to prevent a CFIT event.

(581) **Threat.** As relating to flight, events or errors that occur beyond the influence of an operational person, increase operational complexity, and shall be managed to maintain the margin of safety.

(582) **Threat management.** The process of detecting threats and responding to them with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.

Note: See Chapter 6 of Part II, Section I, of ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG), *and ICAO Circular 314,* Threat and Error Management (TEM) in Air Traffic Control*, for a description of undesired states.*

(583) **Threshold time.** The range, expressed in time, established by the State of the Operator, to an en route alternate aerodrome, where any time beyond requires a specific approval for EDTO from the State of the Operator.

(584) **Total estimated elapsed time.** For IFR flights, the estimated time required from take-off to arrive over that designated point, defined by reference to navigation aids, from which it is intended that an IAP will be commenced or, if no navigation aid is associated with the destination aerodrome, to arrive over the destination aerodrome. For VFR flights, the estimated time required from take-off to arrive over the destination aerodrome.

(585) **Total vertical error (TVE).** The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

(586) **Traceability.** A characteristic of a calibration, analogous to a pedigree. A traceable calibration is achieved when each measurement device and working standard, in a hierarchy stretching back to the national standard, was itself properly calibrated and the results properly documented. The documentation provides the information needed to show that all calibrations in the chain of calibrations were properly performed.

(587) **Track.** The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from north (true, magnetic, or grid).

(588) **Traffic avoidance advice.** Advice provided by an ATS unit specifying manoeuvres to assist a pilot to avoid a collision.

(589) **Traffic information.** Information issued by an ATS unit to alert a pilot to other known or observed air traffic that may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.

(590) **Training programme.** A programme that consists of courses, courseware, facilities, flight training equipment, and personnel necessary to accomplish a specific training objective. It may include a core curriculum and a specialty curriculum.

(591) **Training specifications.** A document issued to an ATO certificate holder by Curaçao that specifies training programme requirements and authorises the conduct of training, checking, and testing with any limitations thereof.

(592) **Training time.** The time spent receiving flight training, ground training, or simulated flight training in an approved FSTD from an authorised instructor.

(593) **Training to proficiency.** The process of the check pilot administering each prescribed manoeuvre and procedure to a pilot as necessary until it is performed successfully during the training period.

(594) **Transfer cargo and mail.** Cargo and mail departing on an aircraft other than that on which it arrived.

(595) **Transfer standard.** Any standard that is used to compare a measurement process, system, or device at one location or level with a measurement process, system, or device at another location or level.

(596) **Transition altitude.** The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

(597) **Type certificate (TC).** Until 25 November 2026, a document issued by a Contracting State to define the design of an aircraft, engine, or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State.

Note: In some Contracting States a document equivalent to a TC may be issued for an engine or propeller type.

(598) **Type certificate (TC).** As of 26 November 2026, a document issued by a Contracting State to define the design of an aircraft, RPS, engine, or propeller type and to certify that this design meets the appropriate airworthiness requirements of that State.

Note 1: In some Contracting States a document equivalent to a TC may be issued for an engine or propeller type.

Note 2: As of 26 November 2026, a document equivalent to a TC may be issued for an RPS type.

(599) **Type design.** Until 25 November 2026, the set of data and information necessary to define an aircraft, engine, or propeller type for the purpose of airworthiness determination.

(600) **Type design.** As of 26 November 2026, the set of data and information necessary to define an aircraft, RPS, engine, or propeller type for the purpose of airworthiness determination.

(601) **Ultimate load.** The limit load multiplied by the appropriate factor of safety.

(602) **Unaided night flight.** For a flight in which a pilot uses night vision goggles, the portion of the flight in which the pilot does not use night vision goggles to maintain visual surface reference.

(603) **Undesired aircraft state.** Occurs when the flight crew places the aircraft in a situation of unnecessary risk.

(604) **Unidentified baggage.** Baggage at an aerodrome, with or without a baggage tag, that is not picked up by or identified with a passenger.

(605) **United Nations (UN) number.** The four-digit number assigned by the UN Committee of Experts on the Transport of Dangerous Goods and the UN Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances.

(606) **Unit load device (ULD).** Any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

(607) **Unmanned aircraft (UA).** Any aircraft intended to be flown without a pilot on board. It can be remotely and fully controlled from another place (ground, another aircraft, space) or pre-programmed to conduct its flight without intervention.

(608) **Unmanned aircraft system (UAS).** An aircraft and its associated elements that are operated with no pilot on board.

(609) **Unmanned free balloon.** A non-power-driven, unmanned, lighter-than-air aircraft in free flight.

(610) **Unpredictability.** The implementation of security measures in order to increase their deterrent effect and their efficiency by applying them at irregular frequencies, in different locations, and/or with varying means, in accordance with a defined framework.

(611) **Validation.** The action taken by Curaçao, as an alternative to issuing its own licence, in accepting a licence issued by another Contracting State as the equivalent of its own licence for use on aircraft registered in Curaçao. Also referred to as rendering a licence valid.

(612) **Visibility.** For aeronautical purposes, the greater of:

(i) The greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background;

(ii) The greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background.

(613) **Visual flight rules (VFR).** The rules that govern the operation of aircraft in VMC.

Note: Because of the limited communication and/or navigation equipment required for VFR flight, a VFR aircraft may be subject to limitations if and when it is permitted in controlled airspace. Any conditions are detailed in the national AIPs.

(614) **Visual line-of-sight (VLOS) operation.** An operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the RPA.

(615) **Visual meteorological conditions (VMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

Note: The specified minima are contained in CCAR Part 8 of these regulations.

(616) **Wet lease.** The lease of an aircraft with crew and other backup.

(617) **Wet runway.** A runway is considered wet if its surface is covered by any visible dampness or water up to and including 3 mm deep within the intended area of use.

(618) **Will.** A rule of construction in paragraph 1.1.1.1(a)(4) of this part that indicates an action incumbent upon the Authority.

1.6 SAFETY MANAGEMENT

1.6.1.1 APPLICABILITY

(a) This subpart prescribes procedures applicable to safety management functions related to, or in direct support of, the safe operation of aircraft by:

(1) Specified aviation safety service providers; and

(2) Operators.

Note 1: Safety management provisions for States are contained in ICAO Annex 19, Chapter 3, and relate to an SSP.

Note 2: Within the context of these regulations, the term "service provider" refers to those organisations listed in 1.6.1.2 of this part and does not include international general aviation operators.

Note 3: Safety management provisions for specified aviation service providers and operators are in ICAO Annex 19, Chapter 4, and relate to SMS.

Note 4: Safety management provisions pertaining to specific types of aviation activities are addressed in the relevant Annexes.

Note 5: Basic safety management principles applicable to the medical assessment process of licence holders are contained in ICAO Annex 1. Guidance is available in ICAO Doc 8984, Manual of Civil Aviation Medicine.

1.6.1.2 SAFETY MANAGEMENT SYSTEM – SERVICE PROVIDERS

(a) The following service providers shall implement an SMS:

(1) ATOs, approved in accordance with Part 3 of these regulations, that are exposed to safety risks related to aircraft operations during the provision of their services;

(2) AOC holders, approved in accordance with Part 9 of these regulations, of aircraft;

(3) AMOs, approved in accordance with Part 6 of these regulations, providing services to operators of aircraft engaged in international commercial air transport;

(4) Organisations responsible for the type design or manufacture of aircraft, engines, propellers, or, as of 25 November 2026, RPSs;

(5) ATS providers; and

(6) Operators of certificated aerodromes.

(b) The service providers listed in paragraph 1.6.1.2(a) of this subsection shall implement an SMS acceptable to the Authority that as a minimum shall:

(1) Contain the components and elements prescribed in IS 1.6.1.2; and

(2) Be commensurate with the size of the service provider and the complexity of its aviation products or services.

(c) The SMS shall clearly define lines of safety accountability throughout the organisation, including a direct accountability for safety on the part of senior management.

Note 1: Guidance on the implementation of an SMS is contained in ICAO Doc 9859, Safety Management Manual (SMM).

Note 2: An SMS is also required by organisations involved in the type design or manufacture of aircraft, in accordance with ICAO Annex 8, and operators of aerodromes, in accordance with ICAO Annex 14, should a State have such service providers.

Note 3: *The provision of AIS, CNS, MET and/or SAR services, when under the authority of an ATS provider, are included in the scope of the ATS provider's SMS. When the provision of AIS, CNS, MET and/or SAR services are wholly or partially provided by an entity other than an ATS provider, the related services that come under the authority of the ATS provider, or those aspects of the services with direct operational implications, are included in the* scope *of the ATS provider's SMS.*

Note 4: As of 26 November 2026, safety management provisions for organisations responsible for the type design or manufacture of aircraft and RPSs and for AMOs are included in Annex 19. Further guidance is contained in ICAO Doc 9859, Safety Management Manual (SMM)*, and ICAO Doc 10019,* Manual on Remotely Piloted Aircraft Systems (RPAS)*.*

1.6.1.3 SAFETY MANAGEMENT SYSTEM – INTERNATIONAL GENERAL AVIATION OPERATORS

(a) International general aviation operators shall implement an SMS that meets the criteria established by the State of Registry when conducting operations with:

(1) An aeroplane with a maximum certificated take-off mass exceeding 5 700 kg;

(2) An aeroplane equipped with one or more turbojet engines; or

(3) An aeroplane with a seating configuration of more than nine passenger seats.

(b) The SMS shall be acceptable to the Authority and shall:

(1) Meet the criteria established by the State of Registry;

(2) Address the SMS framework and elements prescribed in IS 1.6.1.2; and

(3) Be commensurate with the size and complexity of the operation.

Note 1: Guidance on the implementation of an SMS for international general aviation is contained in ICAO Doc 9859, Safety Management Manual (SMM), *and in industry codes of practice.*

Note 2: Guidance concerning the responsibilities of the State of Registry in connection with lease, charter, and interchange operations is contained in ICAO Doc 8335, Manual of Procedures for Operations Inspection, Certification and Continued Surveillance*. Guidance concerning the transfer of State of Registry responsibilities to the State where the aircraft operator has its principal place of business or, if it has no such place of business, its permanent address in accordance with the Chicago Convention, Article 83* bis, *is contained in ICAO Doc 10059,* Manual on the Implementation of Article 83 *bis* of the Convention on International Civil Aviation*.*

1.7 State safety programme (SSP)

The Minister of Traffic, Transport and Urban Planning has appointed the Authority to establish and maintain a SSP commensurate with the size and complexity of the civil aviation system of Curaçao, but the Authority may delegate safety management-related functions and activities to another State, Regional Safety Oversight Organization (RSOO) or (Regional) Accident and Incident Investigation Organization (RAIO).

The SSP shall be established, maintained and implemented in compliance with the provisions of Chapter 3, entitled State Safety Management Responsibilities of Annex 19 of the Chicago Convention, as amended.

1.8 Safety data and safety information collection, analysis, protection, sharing and exchange

To ensure the continued availability of safety data and safety information to support safety management activities the Authority shall collect, analyse, protect, share and exchange safety data and safety information in compliance with the provisions of Chapter 5, entitled Safety data and safety information collection, analysis, protection, sharing and exchange of Annex 19 of the Chicago Convention, as amended**.**

CURAÇAO CIVIL AVIATION REGULATIONS

PART 1 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 1.2.1.8 reflects a standard required by 1.2.1.8 of this part.

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PART 1 – IMPLEMENTING STANDARDS

IS 1.2.1.8 PSYCHOACTIVE SUBSTANCE TESTING AND REPORTING

(a) The following are deemed to be psychoactive substances:

(1) Alcohol;

(2) Opioids;

(3) Cannabinoids;

(4) Sedatives and hypnotics;

(5) Cocaine and other stimulants (except caffeine);

(6) Hallucinogens; and

(7) Volatile solvents.

Note: See ICAO Doc 9654, Manual on Prevention of Problematic Use of Substances in the Aviation Workplace.

IS 1.3.3 LEGAL ENFORCEMENT ACTIONS

(a) These sanction guidance tables provide an approach to assessment of sanctions for violations of these regulations.

(b) These tables describe penalties for a single violation of a particular regulation, in accordance with the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, and the regulations issued thereunder. These terms are defined in the following tables.

(c) These tables describe penalties for a single violation of a particular regulation, in accordance with the Luchtvaartlandsverordening (the Civil Aviation Act), as amended, and the regulation issued thereunder. These terms are defined in the following tables.

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Table 2. Sanctions

Violation	Sanction per Violation	License and Certificate Action
I. AIR OPERATORS AND AERODROME OPERATORS		
1. AMM		
(a) Failure to maintain current manual		Up to 7-day suspension
(b) Failure to provide adequate instructions and procedures in manual		
(c) Failure to distribute manual to appropriate personnel		
(d) Release of aircraft without required equipment		Up to 7-day suspension
2. Failure to comply with ADs		
3. Operations specifications		
(a) Failure to comply with inspection and overhaul time limitations		Up to 7-day suspension
(b) Operations contrary to operations specifications – technical noncompliance		
(c) Operations contrary to operations specifications – likely potential or actual adverse effect on safe operations		
4. Failure to provide adequately for proper servicing, maintenance, repair, and inspection of facilities and equipment		Indefinite suspension until proper servicing, maintenance, repair, and inspection of facilities and equipment is provided to revocation
5. Failure to provide or maintain a maintenance and inspection organisation		Indefinite suspension until appropriate maintenance and inspection organisation is provided to revocation
6. Training programme		
(a) Failure to have or maintain an effective training programme		Indefinite suspension until compliance is demonstrated to revocation
(b) Failure to maintain a training programme		
(c) Failure to train personnel adequately		

Violation	Sanction per Violation	License and Certificate Action
7. Maintenance or aircraft paperwork		
(a) Incomplete or unsigned release		
(b) Failure to revise aircraft data after repair		
8. Performance of maintenance		
(a) By unauthorised person		
(b) Failure to perform or improper maintenance		
9. Failure to revise aircraft data after repair		
10. Records and reports		
(a) Failure to make accurate mechanical interruption summary reports		
(b) Failure to make available reports of major modifications or repairs		Indefinite suspension to revocation
(c) Failure to make accurate mechanical reliability reports		
(d) Failure to keep continuing airworthiness records		7-day suspension and thereafter until aircraft is in airworthy condition
(e) Failure to make required entry in aircraft log		
(f) Failure to make available pilot records		Indefinite suspension to revocation
(g) Failure to make available load manifests		Indefinite suspension to revocation
(h) Failure to monitor and record en route radio communications		
(i) Deliberate violation – intentional false or fraudulent entry, reproduction, or alteration in record or report		Revocation
(j) Deliberate violation – other		180-day suspension to revocation
11. Operation of an unairworthy aircraft		
(a) Technical nonconformity to type certificate, but no likely effect (potential or actual) on safe operation		
(b) Nonconformity that may have, or has, an adverse effect on safety of operation		
(c) Release of aircraft without required equipment		Up to 7-day suspension

Violation	Sanction per Violation	License and Certificate Action
12. Provisions specific to passenger carrying		
(a) Boarding or serving alcoholic beverages to a person who appears to be intoxicated		
(b) Failure to brief passengers		
(c) Failure to ensure seat and belt for each passenger		
(d) Operation without operable public address system		
(e) Failure to store baggage properly		
13. Failure to make available a seat on the flight deck for Authority inspectors conducting an en route inspection		
14. Provisions specific to flight deck crew		
(a) Using an unqualified crew member		
(b) Using a crew member with an expired medical certificate		
(c) Flight and duty time violations		
15. Violation of flight dispatch and release		
16. Other provisions		
(a) Improperly returning an aircraft to service		
(b) Illegal carriage of controlled substance with knowledge of carrier, i.e., knowledge of management personnel		Revocation
(c) Use of unqualified personnel other than flight deck crew member		
17. Security violations		
(a) Failure to properly screen baggage or each passenger		
(b) Unauthorised access to aerodrome operations area		
(c) Failure to comply with air carrier security programme, including failure to detect weapons, incendiary devices, and other dangerous devices		
(d) Management personnel coerce, condone, or encourage falsification of records/reports		Revocation
(e) Deliberate failure to maintain employee records		
(f) Failure to challenge		
(g) Failure to test screeners or test equipment		
(h) Failure to properly train		
(i) Unintentional failure to maintain screener		

Violation	Sanction per Violation	License and Certificate Action
test records		
(j) Improper use of dosimeters		
(k) Failure to display identification		
(l) Failure to manage/control identification system		
(m) Failure to conduct background check		
(n) Failure to detect test objects		
(o) Failure to comply with approved or current security programme		
(p) Failure of the law enforcement officer to respond in a timely manner		
II. PERSONNEL OF AIR CARRIERS		
1. Maintenance, including inspections		
(a) Performing maintenance without a licence, rating, or authorisation		
(b) Performing maintenance that exceeds limitations		30- to 45-day suspension
(c) Failure to perform maintenance properly		30- to 120-day suspension
2. Inspection personnel		
(a) Failure to make required inspection		30- to 60-day suspension
(b) Making improper inspection		30- to 120-day suspension
(c) Improperly releasing an aircraft to service		30- to 60-day suspension
(d) Releasing aircraft for service without required equipment		30- to 60-day suspension
3. Records and reports		
(a) Failure to make entries in aircraft log		15- to 60-day suspension
(b) Failure to make entries in worksheets		15- to 30-day suspension
(c) Failure to make entries in other continuing airworthiness records		15- to 30-day suspension
(d) Failure to sign off on work or inspection performed		15- to 30-day suspension

Violation	Sanction per Violation	License and Certificate Action
(e) Failure to complete and sign an approval for return to service		15- to 30-day suspension
(f) Intentional falsification of records or reports		Revocation
4. Pre-flight		
(a) Failure to use pre-flight flight deck checklist		30- to 60-day suspension
(b) Failure to check aircraft logs, flight manifests, weather, etc.		30- to 90-day suspension
(c) Failure to make the required inspection		30- to 60-day suspension
(d) Failure to inspect, or improper inspection of, aircraft		15- to 30-day suspension
(e) Failure to ensure seat and belt are available for each passenger		30- to 60-day suspension
5. Taxiing		
(a) Failure to adhere to taxi clearance or instruction		30- to 60-day suspension
(b) Collision while taxiing		30- to 180-day suspension
(c) Jet blast		30- to 120-day suspension
(d) Taxiing with passenger standing		30- to 60-day suspension
(e) Taxiing off runway, taxiway, or ramp		30- to 90-day suspension
6. Take-off		
(a) Take-off against instruction or clearance		60- to 120-day suspension
(b) Take-off below weather minima		60- to 120-day suspension
(c) Take-off in overloaded aircraft (in excess of maximum certificated take-off mass)		60- to 120-day suspension
7. En route		
(a) Deviation from clearance or instruction		30- to 90-day suspension
(b) Operating VFR within clouds		90-day suspension to revocation
(c) Operation of unairworthy aircraft		30- to 180-day suspension
(d) Unauthorised departure from flight deck		15- to 30-day suspension
(e) Operating within restricted or prohibited area or within positive control area with clearance		30- to 90-day suspension

Violation	Sanction per Violation	License and Certificate Action
(f) Operating without required equipment		15- to 120-day suspension
(g) Fuel mismanagement/exhaustion		30- to 150-day suspension
(h) Operating contrary to NOTAM		30- to 90-day suspension
(i) Unauthorised manipulation of controls		30- to 90-day suspension
8. Approach to landing		
(a) Deviation from clearance or instruction in terminal area		30- to 90-day suspension
(b) Approach below weather minima		60- to 120-day suspension
(c) Exceeding speed limitation in aerodrome traffic areas		30- to 60-day suspension
9. Landing		
(a) Landing at wrong aerodrome		90- to 180-day suspension
(b) Deviation from instrument approach procedure		30- to 90-day suspension
(c) Overweight landing		30- to 90-day suspension
(d) Hard landing		15- to 60-day suspension
(e) Short or long landing		30- to 180-day suspension
(f) Wheels-up landing		15- to 90-day suspension
(g) Failure to comply with preferential runway system		15-day suspension
(h) Deviating from clearance or instruction		30- to 90-day suspension
10. Unauthorised admission to flight deck		30- to 90-day suspension
11. Failure to close and lock flight deck door		30-day suspension
12. Acting, or attempting to act, as flight crew member while under the influence of liquor or other psychoactive substances, or alcoholic beverage consumption within 8 hours		Emergency revocation
13. Denial of authorised entry to flight deck by authorised inspector		30- to 60-day suspension
14. Flight and duty time limitations		15- to 90-day suspension

Violation	Sanction per Violation	License and Certificate Action
15. Operation without required licence, certificate, or rating		
(a) Medical certificate		30- to 90-day suspension
(b) Lack of type rating		180-day suspension to revocation
(c) Missed proficiency check or line check		30- to 90-day suspension
(d) Lack of current experience, initial or recurrent training		30- to 90-day suspension
(e) Failure to have current medical certificate or licence or authorisation in possession		
(f) Operation with known disqualifying physical disability		Revocation
(g) Operation without valid medical certificate when not medically qualified or application for medical certificate deferred		Revocation
16. Failure to keep manual current		30- to 90-day suspension
III. INDIVIDUALS AND GENERAL AVIATION – OWNERS, PILOTS, MAINTENANCE PERSONNEL, APPROVED MAINTENANCE ORGANISATIONS, APPROVED TRAINING ORGANISATIONS		
1. Owners and operators other than required crew members		
(a) Failure to comply with ADs		
(b) Failure to perform, or improper performance of, maintenance, including required maintenance		
(c) Failure to make proper entries in aircraft logs		
(d) Operation of aircraft beyond annual, 100-hour, or progressive inspection		
(e) Operation of unairworthy aircraft		
(f) Intentional falsification of any entry, reproduction, or alteration in any record or report		Revocation
2. Aviation maintenance organisations		
(a) Failure to provide adequately for proper servicing, maintenance, repairs, and inspection		Indefinite suspension until compliance to revocation

Violation	Sanction per Violation	License and Certificate Action
(b) Failure to provide adequate personnel who can perform, supervise, and inspect work for which the maintenance organisation is rated		7-day suspension and thereafter until adequate personnel are provided Indefinite suspension until compliance to revocation
(c) Failure to have enough qualified personnel to keep up with the volume of work		Up to 7-day suspension and thereafter until certificate holder has enough qualified personnel
(d) Failure to maintain records of supervisory and inspection personnel		
(e) Failure to maintain performance records and reports		
(f) Failure to ensure correct calibration of all inspection and test equipment is accomplished at prescribed intervals		
(g) Failure to set forth adequate description of work performed		
(h) Failure of mechanic to make log entries, records, or reports		
(i) Failure to sign or complete an approval for return to service		
(j) Inspection of work performed and approval for return to service by other than a qualified inspector		Up to 30-day suspension
(k) Failure to have an adequate inspection system that produces satisfactory quality control		Up to 30-day suspension and thereafter until an adequate inspection system is attained
(l) Maintaining or modifying an aeronautical product for which it is rated, without using required technical data, equipment, or facilities		Up to 30-day suspension
(m) Failure to perform or properly perform maintenance, repairs, modifications, or required inspections		Up to 30-day suspension
(n) Maintaining or modifying an airframe, powerplant, propeller, instrument, radio, or accessory for which it is not rated		Suspension or revocation
(o) Failure to report defects or unairworthy conditions to the Authority in a timely manner		

Violation	Sanction per Violation	License and Certificate Action
(p) Failure to satisfy housing and facility requirements		Suspension until housing and facility requirements are satisfied
(q) Change of location, housing, or facilities without advance written approval		Suspension until approval is given
(r) Operating as a certificated maintenance organisation without an AMO certificate		
(s) Failure to permit Authority to inspect		Indefinite suspension until Authority is permitted to inspect
3. General aviation maintenance personnel		
(a) Failure to revise aircraft data after major repairs or modifications		30- to 60-day suspension
(b) Failure to perform or improper performance of maintenance		30- to 120-day suspension
(c) Failure of mechanic to properly accomplish inspection		30- to 60-day suspension
(d) Failure of mechanic to record inspection		15- to 30-day suspension
(e) Failure of inspection authorisation holder to properly accomplish inspection		60-day suspension to revocation
(f) Failure of inspection authorisation holder to record inspection		15- to 30-day suspension
(g) Maintenance performed by person without a certificate		
(h) Maintenance performed by person who exceeded certificate limitations		15- to 60-day suspension
(i) Improper approval for return to service		30- to 120-day suspension
(j) Failure to make continuing airworthiness record entries		30- to 60-day suspension
(k) Failure to set forth adequate description of work performed		15- to 30-day suspension
(l) Falsification of continuing airworthiness records		Revocation
4. Student operations		
(a) Carrying passengers		Revocation
(b) Solo flight without endorsement		45- to 90-day suspension
(c) Operation on international flight		60- to 90-day suspension
(d) Use of aircraft in business		30- to 120-day

Violation	Sanction per Violation	License and Certificate Action
		suspension
(e) Operation for compensation or hire		Revocation
5. Instructors for licences, ratings, authorisations, and endorsement		
(a) False endorsement of a student licence, rating, authorisation, or record		Revocation
(b) Exceeding flight time limitations or other training time limitations		30- to 90-day suspension
(c) Instruction in aircraft and/or course for which the instructor is not rated		60- to 180-day suspension
6. Operational violations		
(a) Operation without valid airworthiness or registration certificate	30- to 90-day suspension	
(b) Failure to close flight plan or file arrival notice	Administrative action to civil penalty of category	
(c) Operation without valid pilot licence (no licence issued)		
(d) Operation while pilot licence is suspended		Emergency revocation
(e) Operation without pilot licence or medical certificate in personal possession		
(f) Operation without valid medical certificate (no medical certificate issued)		Revocation
(g) Operation for compensation or hire without CPL		90-day suspension to revocation
(h) Operation without type or class rating		60- to 120-day suspension
(i) Failure to comply with special conditions of medical certificate		90-day suspension to revocation
(j) Operation with known physical deficiency		90-day suspension to revocation
(k) Failure to obtain pre-flight information		30- to 90-day suspension
(l) Deviation from ATC instruction or clearance		30- to 90-day suspension
(m) Taxiing, take-off, or landing without a clearance where ATC tower is open		30- to 90-day suspension
(n) Failure to maintain radio communications in aerodrome traffic area		30- to 60-day suspension
(o) Failure to comply with aerodrome traffic pattern		30- to 60-day suspension
(p) Operation in terminal control area without or contrary to a clearance		60- to 90-day suspension

Violation	Sanction per Violation	License and Certificate Action
(q) Failure to maintain altitude in aerodrome traffic area		30- to 60-day suspension
(r) Exceeding speed limitations in traffic area		30- to 60-day suspension
(s) Operation of unairworthy aircraft		30- to 180-day suspension
(t) Failure to comply with Airworthiness Directives		30- to 180-day suspension
(u) Operation without required instruments and/or equipment		30- to 90-day suspension
(v) Exceeding operating limitations		30- to 90-day suspension
(w) Operation within prohibited or restricted area, or within positive control area		30- to 90-day suspension
(x) Failure to adhere to right-of-way rules		30- to 90-day suspension
(y) Failure to comply with VFR cruising altitudes		30- to 90-day suspension
(z) Failure to maintain required minimum altitudes over structures, persons, or vehicles over:		
i. Congested area		60- to 180-day suspension
ii. Sparsely populated area		30- to 120-day suspension
(aa) Failure to maintain radio watch while under IFR		30- to 60-day suspension
(bb) Failure to report compulsory reporting points under IFR		30- to 60-day suspension
(cc) Failure to display position lights		30- to 60-day suspension
(dd) Failure to maintain proper altimeter settings		30- to 60-day suspension
(ee) Weather operations:		
i. Failure to comply with visibility minima in controlled airspace		60- to 180-day suspension
ii. Failure to comply with visibility minima outside controlled airspace		30- to 120-day suspension
iii. Failure to comply with distance from clouds requirements in controlled airspace		60- to 180-day suspension
iv. Failure to comply with distance from clouds requirements outside controlled airspace		30- to 120-day suspension

Violation	Sanction per Violation	License and Certificate Action
(ff) Failure to comply with IFR landing minima		45- to 180-day suspension
(gg) Failure to comply with instrument approach procedures		45- to 180-day suspension
(hh) Careless or reckless operations:		
i. Fuel mismanagement/exhaustion		30- to 150-day suspension
ii. Wheels-up landing		30- to 60-day suspension
iii. Short or long landing		30- to 90-day suspension
iv. Landing on or taking off from closed runway		30- to 60-day suspension
v. Landing on or taking off from ramps or other improper areas		30- to 120-day suspension
vi. Taxiing collision		30- to 90-day suspension
vii. Leaving aircraft unattended with motor running		30- to 90-day suspension
viii. Propping aircraft without a qualified person at controls		30- to 90-day suspension
ix. Unauthorised dropping of object from aircraft		30- to 60-day suspension
x. Unauthorised towing		30- to 60-day suspension
xi. Acrobatic flight on airway, over congested area, below minimum altitude, etc.		90- to 180-day suspension
xii. Taking off with insufficient fuel		30- to 150-day suspension
xiii. Operating so as to cause a collision hazard		60- to 180-day suspension
xiv. Taxiing aircraft off runway, taxiway, or ramp		30- to 90-day suspension
(ii) Passenger operations		
i. Operation without approved seat or berth and approved safety belt for each person on board the aircraft required to have them during take-off, en route flight, and landing		30- to 60-day suspension
ii. Carrying passengers who are under the influence of drugs or alcohol		60- to 120-day suspension

Violation	Sanction per Violation	License and Certificate Action
iii. Performing acrobatics when all passengers are not equipped with approved parachutes		60- to 90-day suspension
iv. Use of unapproved parachute		30- to 60-day suspension
v. Permitting unauthorised parachute jumping		30- to 90-day suspension
vi. Carrying passenger(s) without required recent flight experience		30- to 120-day suspension
7. ID plate violations		
(a) Improper removal, changing, or placing of identification information on a product		
i. Inadvertent		
ii. Intentionally misrepresenting identity of product		Revocation
(b) Improper removal or installation of identification plate		
i. Inadvertent		
ii. Intentionally misrepresenting identity of product		Revocation
8. Approved Training Organisations		
(a) Knowingly permitting school aircraft to be used for unlawful carriage of controlled substances or other illegal activities		Revocation
(b) Refusal to permit inspection of facilities, equipment, personnel, records, or certificate by the Authority		Indefinite suspension until Authority is permitted to inspect, up to revocation
(c) False advertising		
(d) Improper crediting to or graduation of student		
i. Inadvertent		
ii. Intentional		Revocation
(e) Refusal to permit Authority test, check, or examination of student		Indefinite suspension until Authority is permitted to test, check, or examine, up to revocation
(f) Unqualified or unauthorised instruction		
(g) Failure to establish or maintain training record		
(h) Failure to carry checklist or operator's		

Violation	Sanction per Violation	License and Certificate Action
handbook		
IV. SECURITY AND SAFETY VIOLATIONS BY INDIVIDUALS		
1. Checked baggage		
(a) Failure to declare unloaded firearm		
(b) Loaded firearm		
(c) Incendiary/explosive	criminal referral	
2. Non-passengers: No intent to board		
(a) Possession of firearm (unloaded, unloaded with ammunition accessible, or loaded) or other dangerous or deadly weapon (including stun guns):		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area with no aggravating circumstances		
iv. In sterile area with aggravating circumstances		
(b) Possession of incendiary/explosive at screening point or in sterile area with no intent to board a flight	criminal referral	
(c) Artful concealment of firearm (loaded or unloaded), other dangerous or deadly weapon (including stun guns), or incendiary/explosive at screening point or in sterile area	criminal referral	
3. Passengers: Intent to board		
(a) Possession of dangerous or deadly weapon (including stun guns, mace, etc., but excluding firearms and incendiary/explosives) that would be accessible in flight in air transportation:		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area or aboard aircraft with no aggravating circumstances		

Violation	Sanction per Violation	License and Certificate Action
iv. In sterile area or aboard aircraft with aggravating circumstances		
(b) Possession of firearm that would be accessible in flight in air transportation with firearm unloaded, without accessible ammunition:		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area or aboard aircraft with no aggravating circumstances		
iv. In sterile area or aboard aircraft with aggravating circumstances		
(c) Possession of firearm that would be accessible in flight in air transportation with firearm loaded, or with accessible ammunition:		
i. At screening point with no aggravating circumstances		
ii. At screening point with aggravating circumstances		
iii. In sterile area or aboard aircraft with no aggravating circumstances		
iv. In sterile area or aboard aircraft with aggravating circumstances		
(d) Artful concealment of dangerous or deadly weapon (including stun guns, but excluding firearms and incendiary/explosives) at screening point, in sterile area, or aboard aircraft	criminal referral	
(e) Possession of incendiary/explosive at screening point, in sterile area, or aboard aircraft that would be accessible in flight in air transportation	criminal referral	
(f) Artful concealment of firearm or incendiary/explosive at screening point, in sterile area, or aboard aircraft	criminal referral	
4. Other acts		
(a) Entering sterile area after failing to submit to screening – non-aggravated		
(b) Entering sterile area after failing to submit to screening – aggravated		
(c) Imparting or conveying false information concerning an attempt to do an act that		

Violation	Sanction per Violation	License and Certificate Action
would be a crime prohibited by Section 702 of the Civil Aviation Safety Law		
(d) Threatening overt act or other intent to use or dangerously display firearm, incendiary/explosive, or other deadly or dangerous weapon (including stun gun)	criminal referral	
(e)		
5. Unruly passengers		
(a) Interference with crew member		
(b) Physical assault or threat to physically assault a flight or cabin crew member		
(c) Physical assault or threat to physically assault an individual other than a crew member		
(d) Acting in a manner that poses imminent threat to safety of aircraft or other individuals on aircraft		
(e) Smoking while “No Smoking” sign is lighted		
(f) Smoking in aircraft lavatory		
(g) Tampering with smoke detector		
(h) Failure to fasten seat belt while seat belt sign is lighted		
(i) Failure to occupy an approved seat or berth with a safety belt and, if installed, shoulder harness properly secured during movement on the surface, take-off, or landing		
(j) Operating a portable electronic device		
(k) Drinking alcoholic beverages not served by operator		
6. Special emphasis enforcement – individuals aiming laser beam at aircraft		
(a) Single, first-time, inadvertent, or non-deliberate violation by individual	;	
(b) Deliberate violation by an individual not holding an airman certificate		
(c) Deliberate violation by an airman certificate holder, regardless of whether the airman was exercising the privileges of the airman certificate at the time of the violation		Revocation (in addition to civil penalty)

Violation	Sanction per Violation	License and Certificate Action
7. Falsification		
(a) Intentionally false or fraudulent entry on, reproduction of, or alteration of an application, a licence, a certificate, a rating, or an approval		Revocation of authorised certificates
8. Miscellaneous		
(a) Carriage of illegal substances on aircraft		Revocation
(b) Conducting operation without required operating certificate		60- to 120-day suspension
(c) Misuse of an aerodrome-approved identification medium		
(d) Making an incorrect statement on an application for a personnel licence or medical certificate		Indefinite suspension (pending correction of application and determination of qualification) or revocation of personnel licence or medical certificate
(e) Refusal to produce personnel licence and/or associated medical certificate		30-day suspension, and until produced to revocation
V. AIRCRAFT OWNER/OPERATOR REGISTRATION VIOLATIONS		
(a) Operation of an unregistered aircraft		30- to 90-day suspension of pilot licence
(b) Operation of an aircraft without an effective and valid certificate of aircraft registration on board		30- to 90-day suspension of pilot certificate
(c) Failure to return an ineffective or invalid certificate of aircraft registration		Revocation of certificate of aircraft registration
(d) Use of registered aircraft to carry out or facilitate unlawful activities		Mandatory revocation of certificate of aircraft registration and of all other certificates of aircraft registration issued to its owner and revocation of all personnel licences and the medical certificate

Violation	Sanction per Violation	License and Certificate Action
VI. ALL INDIVIDUALS AND ENTITIES		
(a) Failure to surrender suspended or revoked licence, authorisation, or other approval, or medical certificate		

IS 1.6.1.2 SAFETY MANAGEMENT SYSTEM – SERVICE PROVIDERS

Note 1: ICAO Doc 9859, Safety Management Manual (SMM)*, contains guidance on the implementation of the framework for an SMS.*

Note 2: The service provider's interfaces with other organisations can make a significant contribution to the safety of its products or services. ICAO Doc 9859 contains guidance on interface management as it relates to SMS.

Note 3: As relating to service providers in this context, "accountability" refers to an obligation that may not be delegated, and "responsibilities" refers to functions and activities that may be delegated.

(a) The following specifies the framework for the implementation and maintenance of an SMS by a service provider.

(1) Safety policy and objectives:

(i) Management commitment

(A) The service provider shall define its safety policy in accordance with international and national requirements. The safety policy shall:

1. Reflect organisational commitment regarding safety, including the promotion of a positive safety culture;
2. Include a clear statement about the provision of the necessary resources for the implementation of the safety policy;
3. Include safety reporting procedures;
4. Clearly indicate which types of behaviours are unacceptable related to the service provider's aviation activities and shall include the circumstances under which disciplinary action would not apply;
5. Be signed by the accountable manager of the organisation;
6. Be communicated, with visible endorsement, throughout the organisation; and
7. Be periodically reviewed to ensure it remains relevant and appropriate to the service provider.

(B) Taking due account of its safety policy, the service provider shall define safety objectives. The safety objectives shall:

1. Form the basis for safety performance monitoring and measurement as required by paragraph (a)(3)(i)(B) of this IS;

2. Reflect the service provider's commitment to maintain or continuously improve the overall effectiveness of the SMS;

3. Be communicated throughout the organisation; and

4. Be periodically reviewed to ensure they remain relevant and appropriate to the service provider.

Note: Guidance on setting safety objectives is provided in ICAO Doc 9859.

(ii) Safety accountability and responsibilities

(A) The service provider shall:

1. Identify the accountable manager who, irrespective of other functions, is accountable, on behalf of the organisation, for the implementation and maintenance of an effective SMS;

2. Clearly define lines of safety accountability throughout the organisation, including a direct accountability for safety on the part of senior management;

3. Identify the responsibilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the organisation;

4. Document and communicate safety accountability, responsibilities, and authorities throughout the organisation; and

5. Define the levels of management with authority to make decisions regarding safety risk tolerability.

(iii) Appointment of key safety personnel

(A) The service provider shall appoint a safety manager who is responsible for the implementation and maintenance of the SMS.

Note: Depending on the size of the service provider and the complexity of its aviation products or services, the responsibilities for the implementation and maintenance of the SMS may be assigned to one or more persons, fulfilling the role of safety manager, as their sole function or combined with other duties, provided this does not result in any conflicts of interest.

(iv) Coordination of emergency response planning

(A) The service provider required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies shall ensure that the emergency response plan is properly coordinated with the emergency response plans of those organisations it must interface with during the provision of its products or services.

(v) SMS documentation

(A) The service provider shall develop and maintain an SMS Manual that describes the service provider's:

1. Safety policy and objectives;

2. SMS requirements;

3. SMS processes and procedures; and

4. Accountability, responsibilities, and authorities for SMS processes and procedures.

(B) The service provider shall develop and maintain SMS operational records as part of its SMS documentation.

Note: Depending on the size of the service provider and the complexity of its aviation products or services, the SMS Manual and SMS operational records may be in the form of stand-alone documents or may be integrated with other organisational documents (or documentation) maintained by the service provider.

(2) Safety risk management:

(i) Hazard identification

(A) The service provider shall develop and maintain a process to identify hazards associated with its aviation products or services.

(B) The service provider shall base its hazard identification on a combination of reactive and proactive methods.

(ii) Safety risk assessment and mitigation

(A) The service provider shall develop and maintain a process that ensures analysis, assessment, and control of the safety risks associated with identified hazards.

Note: The process may include predictive methods of safety data analysis.

(3) Safety assurance:

(i) Safety performance monitoring and measurement

(A) The service provider shall develop and maintain the means to verify the safety performance of the organisation and to validate the effectiveness of safety risk controls.

Note: An internal audit process is one means to monitor compliance with safety regulations, the foundation upon which an SMS is built, and assess the effectiveness of these safety risk controls and the SMS. Guidance on the scope of the internal audit process is contained in ICAO Doc 9859.

(B) The service provider shall verify the safety performance of the organisation in reference to the safety performance indicators and safety performance targets of the SMS in support of the organisation's safety objectives.

(ii) The management of change

(A) The service provider shall develop and maintain a process to identify changes that may affect the level of safety risk associated with its aviation products or services and to identify and manage the safety risks that may arise from those changes.

(iii) Continuous improvement of the SMS

(A) The service provider shall monitor and assess its SMS processes to maintain or continuously improve the overall effectiveness of the SMS.

(4) Safety promotion:

(i) Training and education

(A) The service provider shall develop and maintain a safety training programme that ensures that all personnel are trained and competent to perform their SMS duties.

(B) The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.

(ii) Safety communication

(A) The service provider shall develop and maintain a formal means for safety communication that:

1. Ensures all personnel are aware of the SMS to a degree commensurate with their positions;

2. Conveys safety-critical information;

3. Explains why particular actions are taken to improve safety; and

4. Explains why safety procedures are introduced or changed.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 2 – PERSONNEL LICENSING

MAY 2024

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PART 2 PERSONNEL LICENSING

2.1 GENERAL

2.1.1 APPLICABILITY

(a) Part 2 prescribes the:

(1) Requirements for the issue, renewal, reissue, validation, and conversion of aviation personnel licences, ratings, authorisations, endorsements, certificates, and designations;

(2) Conditions under which those licences, ratings, authorisations, endorsements, certificates, and designations are necessary; and

(3) Privileges and limitations granted to the holders of those licences, ratings, authorisations, endorsements, certificates, and designations.

2.1.2 DEFINITIONS

(a) Definitions concerning the Subparts other than 2.2 and 2.3, are contained in Part 1.

(b) For the purposes of Subparts 2.2 and 2.3, the following definitions shall apply:

(1) **Angular operation.** An instrument approach operation in which the maximum tolerable error/deviation from the planned track is expressed in terms of deflection of the needles on the Course Deviation Indicator (CDI) or equivalent display in the cockpit.

(2) **Linear operation.** An instrument approach operation in which the maximum tolerable error/deviation from the planned track is expressed in units of length, for instance nautical miles, for cross-track lateral deviation.

(3) **Performance-Based Navigation (PBN).** Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

(4) **RNP APCH.** A PBN specification used for instrument approach operations.

(5) **RNP APCH operation down to LNAV minima.** A 2D instrument approach operation for which the lateral guidance is based on GNSS positioning.

(6) **RNP APCH operation down to LNAV/VNAV minima.** A 3D instrument approach operation for which the lateral guidance is based on GNSS positioning and the vertical guidance is provided either by the Baro VNAV function or by the GNSS positioning including SBAS.

(7) **RNP APCH operation down to LPV minima.** A 3D instrument approach operation for which both lateral and vertical guidance are based on GNSS positioning including SBAS.

(8) **RNP AR APCH.** means a navigation specification used for instrument approach operations requiring a specific approval.

(9) **Three-dimensional (3D) instrument approach operation.** means an instrument approach operation using both lateral and vertical navigation guidance.

(10) **Two-dimensional (2D) instrument approach operation.** means an instrument approach operation using lateral navigation guidance only.

2.1.3 ABBREVIATIONS

(a) The following abbreviations are used in Part 2:

(4) **2D** – Two-dimensional

(5) **3D** – Three-dimensional

(6) **A** – Aeroplane.

(7) **AFIS** – Aerodrome Flight Information Service

(8) **AGI –** advanced ground instructor

(9) **AIP** – Aeronautical Information Publication

(10) **AME** – aviation medical examiner

(11) **AMO** – approved maintenance organisation

(12) **AMT** – aviation maintenance technician

(13) **APCH** – approach

(14) **AR** – Authorization Required

(15) **ARS** – aviation repair specialist

(16) **AS** – airship

(17) **ASO** – aeronautical station operator

(18) **ATC** – air traffic control

(19) **ATCO** – air traffic controller (*Note: Abbreviation ICAO A446*)

(20) **ATO** – approved training organisation

(21) **ATPE** – airline transport pilot examiner

(22) **ATPL** – airline transport pilot licence

(23) **ATS** – air traffic service

(24) **BGI** – basic ground instructor

(25) **C2** – command and control

(26) **C2 Link** – command and control link

(27) **CAME** – Civil Aviation Medical Examiner

(28) **CAT II** – Category II

(29) **CAT III** – Category III

(30) **CE** – commercial pilot examiner

(31) **CIE** – International Commission on Illumination

(32) **CIRE** – commercial instrument rating examiner

(33) **CP** – co-pilot

(34) **CPL** – commercial pilot licence

(35) **CRM** – crew resource management

(36) **DCA** – Director of Civil Aviation

(37) **DFEE** – designated flight engineer examiner

(38) **DFNE** – designated flight navigator examiner

(39) **DFOOE** – designated flight operations officer examiner

(40) **DH** – decision height

(41) **DME** – designated mechanic examiner

(42) **DPE** – designated pilot examiner

(43) **DPRE** – designated parachute rigger examiner

(44) **FE** – flight engineer

(45) **FEI** – flight engineer instructor

(46) **FI** – flight instructor

(47) **FN** – flight navigator

(48) **FOO** – flight operations officer

(49) **FSTD** – flight simulation training device

(50) **GI** – ground instructor

(51) **GNSS** – Global Navigation Satellite System

(52) **H** – Helicopter

(53) **HIV** – human immunodeficiency virus

(54) **IA** – inspection authorisation

(55) **ICAO** – International Civil Aviation Organization

(56) **IFR** – instrument flight rules

(57) **IGI** – instrument ground instructor

(58) **ILS** – instrument landing system

(59) **IMC –** instrument meteorological conditions

(60) **IR** – instrument rating

(61) **IS** – Implementing Standard

(62) **ISO** – International Organization for Standardization

(63) **LNAV** – Lateral Navigation

(64) **LPV** – Localizer Performance with Vertical Guidance

(65) **MCM** – Maintenance Control Manual

(66) **MEL** – minimum equipment list

(67) **MPA** – multi-pilot aeroplane

(68) **MPH** – multi-pilot helicopter

(69) **MPL** – multi-crew pilot licence

(70) **MSL** – mean sea level

(71) **NDT** – non-destructive testing

(72) **NOTAM** – Notice to Airmen

(73) **OJTI** – on-the-job training instructor

(74) **OM –** Operations Manual

(75) **PIC** – pilot-in-command

(76) **PL** – powered-lift

(77) **PPE** – private pilot examiner

(78) **PPL** – private pilot licence

(79) **PR** – parachute rigger

(80) **RNP** – required navigation performance

(81) **RP** – remote pilot

(82) **RPA** – remotely piloted aircraft

(83) **RPAS** – remotely piloted aircraft system

(84) **RPPL** – Restricted Private Pilot Licence

(85) **RPL** – remote pilot licence

(86) **RPS** – remote pilot station

(87) **RT** – radiotelephony

(88) **RVR** – runway visual range

(89) **SBAS** – Satellite-Based Augmentation System

(90) **SOP** – standard operating procedure

(91) **SPA** – single-pilot aeroplane

(92) **SPH** – single-pilot helicopter

(93) **SSP** – State safety programme

(94) **STS** – skill test standard

(95) **TCA** – Terminal Control Area

(96) **TCL** – Terminal Control

(97) **VFR** – visual flight rules

(98) **VMC** – visual meteorological conditions

(99) **VNAV** – vertical navigation

(100) **ZFTT** – Zero Flight Time Training

2.2 GENERAL REQUIREMENTS FOR LICENCES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, CERTIFICATES, AND DESIGNATIONS

2.2.1 ISSUE, RENEWAL, AND REISSUE OF LICENCES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, CERTIFICATES, AND DESIGNATIONS

2.2.1.1 LICENCES

(1) The Authority may issue the following licences under Part 2 to an applicant who satisfactorily accomplishes the requirements of Part 2 for the licence sought:

(2) Pilot licence:

(i) RPPL – aeroplane, helicopter, airship, or powered-lift categories;

(ii) PPL – aeroplane, helicopter, airship, or powered-lift categories;

(iii) CPL – aeroplane, helicopter, airship, or powered-lift categories;

(iv) MPL – aeroplane;

(v) ATPL – aeroplane, helicopter, or powered-lift categories;

(vi) RPL – aeroplane, rotorcraft, airship, or powered-lift, categories;

Note: The requirements for the RPL and ratings can be found in 2.3.11 of Part 2.

(3) Flight Operations Officer (FOO) licence;

(4) Flight Instructor (FI) licence;

(5) Ground Instructor (GI) licence;

(6) Aircraft Maintenance Technician (AMT) licence;

(7) Air Traffic Controller (ATCO) licence;

(8) Parachute Rigger (PR) licence.

2.2.1.2 RATINGS

(a) The Authority may issue the following ratings to place on a pilot licence or flight instructor licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Category ratings in the following aircraft:

(i) Aeroplane

(ii) Helicopter

(iii) Airship

(iv) Powered-lift

(v) RPAS

(2) Class ratings in the following aircraft:

(i) Single-engine land – aeroplane

(ii) Single-engine sea – aeroplane

(iii) Multi-engine land – aeroplane

(iv) Multi-engine sea – aeroplane

Note: A class rating may be issued for those helicopters certificated for single-pilot operations and which have comparable handling, performance, and other characteristics.

(v) RPAS

(vi) Any rating considered necessary by the Authority

Note: A class rating or endorsement for high-performance aeroplanes requires additional knowledge, if the applicant has not completed the ATPL(A) knowledge requirementsType ratings in the following aircraft:

(3) Type-ratings in the following aircraft:

(i) Each type of aircraft certificated for operation with a minimum crew of at least two pilots

(ii) Each type of helicopter certificated for single-pilot operation except where a class rating has been established under paragraph 2.2.1.2(a)(2)(v) of this subsection

(iii) Any aircraft considered necessary by the Authority

Note: A type rating for high-performance aeroplanes requires additional knowledge, if the applicant has not completed the ATPL(A) knowledge requirements.

(4) Instrument ratings in the following aircraft:

(i) Instrument – aeroplane

(ii) Instrument – helicopter

(iii) Instrument – powered-lift

Note: The IR is included in CPL – airship, ATPL – aeroplane, and powered-lift.

(5) Flight Instructor ratings:

(i) The appropriate aircraft category, class, instrument, and/or type rating according to the instruction to be taught.

(6) Radiotelephone operator rating.

Note: Regarding the Radiotelephone operator rating:

(i) *Where the knowledge and skill of an applicant have been established as satisfactory in respect of the certification requirements for the radiotelephone operator's restricted certificate specified in the general radio regulations annexed to the International Telecommunication Convention and the applicant has met the requirements that are pertinent to the operation of the radiotelephone on board an aircraft, the Authority may endorse a licence already held by the applicant or issue a separate licence as appropriate.*

(ii) *Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all pilot aeroplane and helicopter licences.*

(b) The Authority may issue the following ratings to place on a Ground Instructor licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Basic

(2) Advanced

(3) Instrument

(c) The Authority may issue the following ratings to place on a Flight Engineer's licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Reciprocating engine powered

(2) Turbo propeller powered

(3) Turbojet powered

(d) The Authority may issue AMT license with categories and aircraft group ratings when an applicant satisfactorily accomplishes the requirements of Part 2 for the category sought:

(1) AMT license categories are defined in this Part under Paragraph 2.6.1.2;

(2) AMT license aircraft group ratings are defined in this Part under Paragraph 2.6.1.3.

(e) The Authority may issue the following ratings to place on an ATCO licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Aerodrome control rating

(2) Approach control rating

(3) Approach radar control rating

(4) Approach precision Surveillance control rating

(5) Area control rating

(6) Area Surveillance control rating

(f) The Authority may issue the following ratings to place on a Parachute Rigger's licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the rating sought:

(1) Seat

(2) Back

(3) Chest

(4) Lap

2.2.1.3 AUTHORISATIONS

(a) The Authority may issue the following authorisations when an applicant satisfactorily accomplishes the requirements of Part 2 for the authorisation sought:

(1) Student pilot authorisation;

(2) Instructor Authorisation (IA) for training in a Flight Simulation Training Device (FSTD);

Note: If the State prefers, a student pilot licence or certificate may be issued.

(b) The Authority may issue the following authorisations to place on a pilot licence when an applicant satisfactorily accomplishes the requirements of Part 2 for the authorisation sought:

(1) CAT II pilot authorisation;

(2) CAT III pilot authorisation;

(3) PBN pilot authorization.

2.2.1.4 CERTIFICATES

(a) The Authority may issue the following medical certificates when an applicant satisfactorily accomplishes the requirements of Part 2 for the medical certificate sought:

(1) Medical certificate, Class 1, for CPL, ATPL, FI licence, and DPE;

(2) Medical certificate, Class 2, for student pilot authorisation, RPPL, PPL, FE licence, and FN licence;

(3) Medical certificate, Class 3, for ATCO licence and RPL.

(g) The Authority may issue validation certificates to pilots and FEs holding a licence from another Contracting State.

(h) The Authority may issue certificates of designation to representatives of the Director General Civil Aviation as identified in 2.2.1.6 of Part 2.

2.2.1.5 ENDORSEMENTS

(a) An authorised instructor may issue the following endorsements to a pilot who satisfactorily accomplishes the required training in Part 2:

(1) Complex aeroplane endorsement;

(2) High-performance aeroplane endorsement;

(3) High-altitude aircraft endorsement;

(4) Night vision goggles endorsement.

(b) An authorised instructor may issue the following endorsements to an ATCO who satisfactorily accomplishes the required training in Part 2:

(1) Tower Control endorsement for Aerodrome Control Rating;

(2) Ground Movement Control endorsement for Aerodrome Control rating;

(3) Radar endorsement for Approach Control Surveillance rating and Area Control Surveillance rating;

(4) ADS endorsement for Approach Control Surveillance rating and Area Control Surveillance rating;

(5) TCL endorsement for Approach Control Surveillance rating and Area Control Surveillance rating.

2.2.1.6 DESIGNATION OF REPRESENTATIVES OF THE DIRECTOR GENERAL OF CIVIL AVIATION

(a) The Authority may issue the following designations to private persons to act on behalf of the DGCA, as specified in this Part:

(1) CAME;

(2) DPE;

(3) DFEE;

(4) DFNE;

(5) DFOOE;

(6) DME;

(7) DPRE; or

(8) Other designees as may be determined by the Authority.

2.2.1.7 VALIDITY OF LICENCES, RATINGS, AUTHORISATIONS, CERTIFICATES, AND DESIGNATIONS

(a) The validity period of the licences, ratings, authorisations, designations, certificates of validation, and medical certificates and the renewal and reissue conditions are indicated in the applicable requirements of Part 2.

(b) The issue, renewal, and reissue of licences, ratings, authorisations, designations, and certificates will be performed by the Authority.

(1) Renewal of ratings and CAT II, CAT III or PBN pilot authorisations may be performed by the examiner, when delegated by the Authority.

(2) Renewal of medical certificates may be performed by the CAME, when delegated by Authority.

(c) Application for the issue, renewal, and reissue of licences, ratings, authorisations, designations, and certificates by the Authority shall be done by submitting to the Authority a properly completed form, which can be obtained from the Authority.

(d) FOR RENEWAL:

(1) Application shall be made to the Authority at least 14 days before the expiration date.

(2) The licence, rating, authorisation, designation, or certificate, including any required medical certificate, shall be valid.

(e) PRIVILEGES:

(1) The holder of a licence, rating, certificate, authorisation, or designation shall not exercise privileges other than those granted by the licence, certificate, authorisation, or designation.

(2) The privileges granted by a licence, or by related ratings, may not be exercised unless the holder maintains competency and meets the requirements of Part 2 for recent experience.

(f) MAINTENANCE OF COMPETENCY.

(1) Maintenance of competency shall be indicated in the flight crew members personal licence or record (e.g., logbook).

(2) The maintenance of competency of flight crew and remote flight crew members engaged in commercial air transport operations shall be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Part 8 of these regulations.

(3) The maintenance of competency shall be satisfactorily recorded in the operator's records or

in the flight crew or remote flight crew member's personal logbook or licence.

(4) A flight crew or remote flight crew member shall, to the extent deemed feasible by the State of Registry, or by the Authority of the State of the Operator, respectively, demonstrate his or her continuing competency in FSTDs approved by that State.

(g) MEDICAL FITNESS. An applicant for the following licences, authorisations, and designations shall hold a current and appropriate medical certificate issued under the requirements of Part 2 in order for that applicant's licence, authorisation, or designation to be valid:

(1) Student pilot authorisation

(2) Pilot licence

(3) FE licence

(4) FN licence

(5) FI licence

(6) ATCO licence

(7) DPE

(8) DFEE

(9) DFNE

2.2.2 LANGUAGE PROFICIENCY

(a) Pilots, FEs, FNs, ATCOs, ASOs, and, as of 01 January 2024, RPs, shall demonstrate the ability to speak and understand RT communications in the language of Curaçao and in the English language.

(b) The airmen identified in paragraph 2.2.2(a) of this subsection shall demonstrate the ability to speak and understand RT communications in the language of Curaçao and in the English language to at least the Operational Level (Level 4) with the aim to speak at the Expert Level (Level 6) as specified in the language proficiency requirements in IS 2.2.2.

(c) The language proficiency of the airmen identified in paragraph 2.2.2(a) of this subsection shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level as follows:

(1) Those demonstrating language proficiency at the Operational Level (Level 4) shall be evaluated at intervals not greater than 3 years;

(2) Those demonstrating language proficiency at the Extended Level (Level 5) shall be evaluated at intervals not greater than 6 years; and

(3) Those demonstrating language proficiency at the Expert Level (Level 6) shall be exempt from further language evaluation.

(d) Detailed requirements for language proficiency are contained in IS 2.2.2.

2.2.3 CREDIT FOR MILITARY COMPETENCY

2.2.3.1 CREDIT FOR MILITARY PILOTS

(a) PILOT LICENCES. Except for a rated military pilot or former rated military pilot who has been removed from flying status for lack of proficiency or because of disciplinary action involving aircraft operations, a rated military pilot or former rated military pilot who meets the requirements of IS 2.2.3.1 may apply, on the basis of that pilot's military training, for:

(1) CPL, or ATPL;

(2) A rating in the category and class of aircraft for which that military pilot is qualified;

(3) An IR with the appropriate category rating for which that military pilot is qualified; and

(4) A type rating, if appropriate.

(b) The testing required for a military pilot seeking a licence or rating is as follows:

(1) If the applicant has been on active flight status within the 12 months prior to application for a licence or rating, the applicant shall pass a knowledge test on:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT.

(2) If the applicant has not been on active flight status within the 12 months prior to application for a licence or rating, the applicant shall pass both a knowledge and skill test.

2.2.3.2 CREDIT FOR MILITARY PARACHUTE RIGGERS

(a) The Authority will grant to an applicant for a senior Parachute Rigger (PR) licence that licence if the applicant passes a knowledge test on the regulations of 2.10 of this Part and presents satisfactory documentary evidence that the applicant:

(1) Is a member or civilian employee of an armed force of the Kingdom of the Netherlands is a civilian employee of a regular armed force of a foreign country, or has, within the 12 months preceding his or her application, been honourably discharged or released from any status covered by this paragraph;

(2) Is serving, or has served within the 12 months preceding application, as a PR for such an armed force; and

(3) Has the experience required by 2.10.1.4 of this Part.

2.2.4 VALIDATION AND CONVERSION OF FOREIGN LICENCES, RATINGS, AUTHORISATIONS, AND CERTIFICATES

Note: Validation and conversion of RPAS licences is contained in 2.3.11.3 of this Part.

2.2.4.1 VALIDATION OF FLIGHT CREW LICENCES

(a) GENERAL REQUIREMENTS FOR VALIDATION.

(1) A person who holds a current and valid pilot licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for validation of such licence for use on aircraft registered in Curaçao.

(2) The applicant for the validation certificate shall present to the Authority the foreign licence and the record (e.g., logbook) of evidence of required experience.

(3) The applicant for the validation certificate shall present to the Authority evidence that the applicant holds either a current medical certificate issued under this Part or a current medical certificate issued by the Contracting State that issued the applicant's licence.

(i) The Authority may allow the applicant to use the foreign medical certificate with the validation certificate, provided that the medical certification requirements on which the foreign medical certificate was issued meet the requirements of this Part, relevant to the licence held.

(4) The applicant for the validation certificate shall present to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao, as specified in 2.2.2 of this Part or shall demonstrate to the Authority the language proficiency skills as specified in 2.2.2 of this Part.

(i) The validation shall be limited for use on Curaçao registrered aircraft for use within Curaçao if the pilot is not proficient in the English language, as required by 2.2.2 of this Part.

(5) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence prior to issuing the validation.

(6) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.

(7) The Authority may issue a validation certificate which will be valid for 1 year, provided the foreign licence, ratings, or authorisations and the medical certificate remain valid.

(b) Validation certificate with PPL privileges. In addition to the requirements of paragraph 2.2.4.1(a) of this subsection, the applicant for a validation certificate with PPL privileges shall have a foreign licence with at least PPL privileges.

(c) Validation certificate with PPL/IR, CPL, CPL/IR, MPL, ATPL, or FE privileges. In addition to the requirements in paragraph 2.2.4.1(a) of this subsection, the applicant for a validation certificate with PPL/IR, CPL, CPL/IR, MPL, ATPL, or FE privileges shall have a foreign licence with at least those privileges and shall meet the following requirements:

(1) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Curaçao's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT.

(2) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that the applicant wants to be validated relevant to the privileges of the licence held; and

(3) The applicant shall comply with the experience requirements set out in the table below:

Licence	Experience	Validation Privileges
ATPL(A)	>1500 hours as PIC in multi-pilot* certificated aeroplanes	Commercial air transport in multi pilot aeroplanes as PIC
ATPL(PL)	>1500 hours as PIC in multi-pilot certificated powered-lift or >1500 hours in multi-pilot operations in a combination of powered-lift, aeroplane, and helicopter aircraft, as acceptable to the Authority	Commercial air transport in multi-pilot powered-lift as PIC
ATPL(H)	>1000 hours as PIC in multi pilot helicopters	Commercial air transport in multi pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	>500 hours as PIC or CP in multi pilot aeroplanes	Commercial air transport in multi pilot aeroplanes as CP
ATPL(PL) or CPL(PL)/IR	>500 hours as PIC or CP in multi-pilot powered-lift	Commercial air transport in multi-pilot powered-lift as CP
ATPL(H) or CPL(H)/IR	>500 hours as PIC or CP in multi pilot helicopters	Commercial air transport in multi pilot helicopters as CP
CPL(A)/IR	>1000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single pilot aeroplanes as PIC
CPL(H)/IR	>1000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single pilot helicopter as PIC
CPL(A)	>700 hours in aeroplanes other than gliders, including 200 hours in the activity role for which validation is sought, and	Activities in aeroplanes other than commercial air transport

Licence	Experience	Validation Privileges
	50 hours in that role in the last 12 months	
CPL(H)	>700 hours in helicopters, including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in helicopters other than commercial air transport
CPL(PL)	>700 hours in powered-lift (or combination of powered-lift, aeroplane, and helicopter, as acceptable to the Authority), including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in powered-lift other than commercial air transport
CPL(AS)	>250 hours as PIC in commercial air transport, including 50 hours in airships within the last 12 months	Commercial air transport in airships as PIC under IFR and VFR conditions
MPL(A)	>250 as co-pilot of turbine-powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots operated in commercial air transport within the past 12 months	Commercial air transport in turbine - powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots as co-pilot
PPL(A)/IR	>100 hours PIC instrument flight time	Private flights under IFR
PPL(H)/IR	>100 hours PIC instrument flight time	
PPL(PL)/IR	>100 hours PIC instrument flight time	Private flights under IFR
FE	>1500 hours as FE on aeroplanes in commercial air transport	Commercial air transport in aeroplanes as FE
FE	>1000 hours as FE on aeroplanes in other than commercial air transport	Other than commercial air transport in aeroplanes as FE

**Note 1: The term "multi-pilot" is used to indicate experience in an aircraft required to be operated with a CP.*

2.2.4.2 CONVERSION OF FLIGHT CREW LICENCES

(a) Conversion of a foreign pilot licence for issuance of a PPL by Curaçao.

(1) The holder of a current and valid pilot licence with at least PPL privileges, issued by another Contracting State in accordance with ICAO Annex 1, may apply for a conversion and be issued a PPL for use on aircraft registered in Curaçao, provided the following requirements are met.

(2) The holder shall:

(i) Present to the Authority the foreign licence, the evidence of experience required by presenting the record (e.g., logbook), and a current medical certificate;

(ii) Present to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao as specified in 2.2.2 of Part 2, or shall demonstrate to the Authority the language proficiency skills as specified in 2.2.2 of this Part;

(iii) Obtain a Class 2 medical certificate issued under this Part;

(iv) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(A) Air law;

(B) Meteorology;

(C) Operational procedures; and

(D) RT; and

(v) Complete a PPL skill test.

(3) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to converting the licence.

(b) Conversion of PPLs/IR, CPLs, CPLs/IR, MPLs, ATPLs, and FE licences, which have been validated in accordance with 2.2.4.1 of this Part.

(1) The holder of a current and valid foreign CPL, CPL/IR, MPL, ATPL, or FE licence, issued by another Contracting State in accordance with ICAO Annex 1, and an appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Curaçao provided the following requirements are met:

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1 of this Part;

(ii) The applicant has completed 200 flight hours in a Curaçao-registered aircraft or any foreign registered aircraft which is operated by an operator established in Curaçao exercising the privileges granted by the validation certificate;

(iii) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 200 flight hours by presenting the record (e.g., logbook); and

(iv) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.

(2) The holder of a current and valid foreign PPL/IR issued by another Contracting State, in accordance with ICAO Annex 1, and an appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Curaçao, provided the following requirements are met:

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1 of this Part;

(ii) The applicant has completed 75 flight hours in a Curaçao-registered aircraft in Curaçao exercising the privileges granted by the validation certificate;

(iii) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 75 flight hours by presenting the record (e.g., logbook); and

(iv) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.

(3) Ratings listed on a person's foreign pilot licence that have been validated in accordance with 2.2.4.1 of this Part may be placed on that person's converted licence.

2.2.4.3 VALIDATION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.1 and 2.2.4.2 of this Part, the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign licence and current medical certificate, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority is convinced that the licence has been issued on the basis of at least this Part;

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences and, if applicable, about keeping the licences and ratings current and valid; and

(4) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence, knowledge of Curaçao's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT.

(b) The applicant for the validation certificate shall present to the Authority the:

(1) Foreign licence and evidence of the currency of the licence by presenting the record (e.g., logbook);

(2) Medical certificate relevant to the licence to be validated, provided the foreign medical certificate meets the requirements of this Part; and

(3) Evidence of language proficiency in English and, if required, in the language of Curaçao as specified in 2.2.2 of this Part, or shall demonstrate to the Authority the language skills as specified in 2.2.2 of this Part.

(c) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the validation.

(d) The Authority may issue a validation certificate which will be valid for 1 year, provided the foreign licence, ratings, authorisations, and medical certificate remain valid.

(e) Procedures for the validation of flight crew licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.3.

2.2.4.4 CONVERSION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.1 and 2.2.4.2 of this Part the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority is convinced that the licence has been issued on the basis of at least this Part; and

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences.

Note: The registry of agreements with their associated list of Contracting States can be found in ICAO's Database of Aeronautical Agreements and Arrangements.

(b) The applicant for the conversion shall present to the Authority the:

(1) Foreign licence and evidence of the currency of the licence by presenting the record (e.g., logbook);

(2) Medical certificate relevant to the licence if the medical certificate is to be converted, or the medical certificate issued under this Part relevant to the licence sought; and

(3) Evidence of language proficiency in English and, if required, in the language of Curaçao as specified in 2.2.2 of this Part or shall demonstrate to the Authority the language skills as specified in 2.2.2 of this Part.

(c) The applicant shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(1) Air law;

(2) Meteorology;

(3) Operational procedures; and

(4) RT.

(d) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the licence.

(e) Procedures for the conversion of flight crew licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.4.

2.2.4.5 VALIDATION IN CASE OF LEASED, CHARTERED, OR INTERCHANGED AIRCRAFT

(a) The requirements stated in 2.2.4.1 of this Part shall not apply where aircraft registered in Curaçao are leased to, chartered by, or interchanged by an operator of another Contracting State, provided that during the term of the lease the State of the Operator has accepted responsibility for the technical and/or operational supervision of the aircraft in accordance with Article 83 *bis* of the Convention on International Civil Aviation.

(b) The licences of the flight crew of the other Contracting State may be validated by the Authority, provided that the privileges of the flight crew licence validation are restricted for use during the lease, charter, or interchange period only on nominated aircraft in specified operations not involving a Curaçao operator, directly or indirectly through a wet lease or other commercial arrangement.

(c) The Authority will verify the authenticity of the licence, ratings, authorisations, including the English language proficiency endorsement of at least Level 4, and medical certificate with the State of Licence Issue prior to issuing the validation.

2.2.4.6 TEMPORARY VALIDATION OF NON-CURACAO'S PILOT LICENCES HELD BY MANUFACTURER PILOTS

(a) In circumstances where validation of a non-Curaçao pilot licence is needed to fulfil specific tasks of finite duration, the Authority may issue a temporary validation of such a licence for those tasks as described in this paragraph.

(b) Notwithstanding the requirements contained in 2.2.4.1, 2.2.4.2, 2.2.4.3, or 2.2.4.4 of this Part, the Authority may temporarily validate a licence issued by another Contracting State in accordance with the provisions of ICAO Annex 1, including an instructor rating or examiner authorisation issued by that State, provided that the holder of the licence shall:

(1) Possess the appropriate licence, medical certificate, type ratings, and qualifications, to include instructor or examiner qualifications, valid in the State of Licence Issue for the duties proposed;

(2) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Curaçao's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) RT;

(3) Provide evidence of language proficiency in the language of English and, if required, in the language of Curaçao as specified in 2.2.2 of this Part or shall demonstrate to the Authority the language skills as specified in 2.2.2 of this Part;

(4) Be employed by an aircraft manufacturer or ATO located outside Curaçao and performing training on behalf of an aircraft manufacturer; and

(5) Be limited to performing flight instruction and testing for initial issue of type ratings, the supervision of initial line flying by the pilots of an operator in Curaçao, delivery or ferry flights, initial line flying, flight demonstrations, or test flights.

(c) Whenever conducting or supervising line flying, the pilot shall also be required to meet the relevant requirements of Part 8 of these regulations.

(d) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the temporary validation.

(e) The duration of the temporary validation shall be 1 year.

2.2.4.7 VALIDATION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

(a) GENERAL REQUIREMENTS FOR VALIDATION.

(1) A person who holds a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the validation of such licence for use on aircraft registered in Curaçao provided the following requirements are met.

(i) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record (e.g., logbook).

(ii) The applicant for the validation certificate shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(2) The Authority will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the validation.

(3) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.

(4) The Authority may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, or authorisations remain valid.

(b) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of:

(1) Air law;

(2) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(3) AMOs and procedures.

(c) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that he or she wants to have validated, relevant to the privileges of the licence held.

(d) The applicant for the validation certificate shall have;

(1) A minimum of 4 years of AMT experience; or

(2) Has completed 4 years of experience as a mechanic working on a Curaçao-registered aircraft or any foreign registered aircraft which is operated by an operator established in Curaçao.

(e) Notwithstanding the requirements in 2.2.4.7(d) if an AMT has fewer than 4 years of experience, he or she must accumulate at least 2 years of experience as a mechanic working on a Curaçao-registered aircraft or any foreign registered aircraft which is operated by an operator established in Curaçao.

2.2.4.8 CONVERSION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

(a) GENERAL REQUIREMENTS FOR CONVERSION. A person who holds a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the conversion of such licence for use on aircraft registered in Curaçao provided the following requirements are met:

(1) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record (e.g., logbook).

(2) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(3) The applicant for the conversion shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(i) Air law;

(ii) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(iii) AMOs and procedures;

(4) The applicant for the conversion shall complete a skill test for the relevant licence and ratings that he or she wants to have converted, relevant to the privileges of the licence held; and

(5) The applicant for the conversion shall have a minimum of 4 years of AMT experience.

(b) The Authority will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the converted licence.

(c) The Authority will only convert ratings or authorisations on the foreign licence together with the conversion of a licence.

(d) Conversion of AMT licences that have been validated in accordance with 2.2.4.7 of this Part.

(1) The holder of a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with 2.2.4.7 of this Part and can show evidence of 12 months of performing maintenance on aircraft registered in Curaçao may convert that AMT licence with no further formality.

2.2.4.9 VALIDATION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.7 and 2.2.4.8 of Part 2, the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AMT, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority has determined that the licence has been issued on the basis of at least this Part;

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences and, if applicable, about keeping the licences and ratings current and valid;

(4) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Curaçao's:

(i) Air law;

(ii) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(iii) AMOs and procedures;

(5) The applicant for the validation certificate shall present to the Authority the:

(i) Foreign licence; and

(ii) Evidence of the currency of the licence by presenting the personal record (e.g., logbook).

(6) The applicant for the validation shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(b) The Authority will verify the authenticity of the licence and ratings with the State of Licence Issue prior to issuing the validation.

(c) The Authority may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, and authorisations remain valid.

(d) Procedures for the validation of AMT licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.9.

2.2.4.10 CONVERSION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.7 and 2.2.4.8 of this Part, the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) The licence is issued by another Contracting State;

(2) The Authority is convinced that the licence has been issued on the basis of at least Part 2; and

(3) There is an agreement between the Authority and the other Contracting State about recognition of licences.

(4) The applicant for the conversion shall present to the Authority the: foreign licence and evidence of the currency of the licence by presenting the personnel record (e.g., logbook).

(b) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency in English and, if required, in the language of Curaçao.

(c) The applicant for the conversion shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Curaçao's:

(1) Air law;

(2) Applicable airworthiness requirements governing certification and continuing airworthiness; and

(3) AMOs and procedures.

(d) The Authority will verify the authenticity of the licence, ratings, authorisations, and medical certificate with the State of Licence Issue prior to issuing the conversion.

(e) Procedures for the conversion of AMT licences by reliance upon the licensing system of another Contracting State are contained in IS 2.2.4.10.

2.2.4.11 AUTOMATIC VALIDATION OF LICENCES ISSUED BY CONTRACTING STATES WITH A FORMAL AGREEMENT UNDER COMMON LICENSING REGULATIONS

(a) Notwithstanding the requirements contained in 2.2.4.3 and 2.2.4.9 of this Part, the Authority may automatically validate licences issued by other Contracting States, provided that the Authority and the other Contracting States shall have:

(1) Adopted common licensing regulations that are compliant with ICAO Annex 1;

(2) Entered into a formal agreement recognising the automatic validation process;

(3) Established a surveillance system to ensure the continuing implementation of the common licensing regulations; and

(4) Registered the agreement with ICAO pursuant to Article 83 of the Convention on International Civil Aviation.

(b) The Authority, when issuing a licence, rating, or certificate under the requirements of paragraph 2.2.4.11(a) of this subsection, will:

(1) Endorse the licence, rating, or certificate to indicate that it is rendered valid through registered agreement with ICAO in accordance with paragraph 2.2.4.11(a)(4) of this subsection;

(2) Issue a numbered attachment to the licence, rating, or certificate with the information required by IS 2.2.4.11 or, until 31 December 2022 for licences issued prior to 09 November 2017, will use some other effective means of documentation of the information required by IS 2.2.4.11 to be carried on board the aircraft or accessible; and

(3) Issue an English translation of the attachment if the licence is in a language other than English.

Note: The registry of agreements with their associated list of Contracting States can be found in ICAO's

Database of Aeronautical Agreements and Arrangements.

2.2.5 TRAINING AND TESTING REQUIREMENTS

2.2.5.1 DOCUMENTATION OF TRAINING AND AERONAUTICAL EXPERIENCE

(a) Each person shall document and record the following in a manner acceptable to the Authority:

(1) The training and/or experience used to meet the requirements for a licence, rating, endorsement, and/or authorisation of this Part; and

(2) The experience required to show maintenance of recency of aeronautical experience according to the requirements of this Part.

2.2.5.2 TRAINING CONDUCTED IN AN ATO

(a) Approved training for aviation personnel licences shall be conducted within an ATO.

(b) The Authority may approve a training programme for a licence, rating, authorisation, or endorsement that allows an alternative means of compliance with the experience requirements prescribed in Part 2 when training is conducted within an ATO under special curricula approved by the Authority under Part 3 of these regulations.

(c) Prior to authorising an alternative means of compliance that permits an ATO to conduct training that does not meet the normal prescribed experience requirements, the Authority will ensure that the approved training programme provides a level of competency at least equal to that provided by the minimum experience requirements for personnel not receiving such approved special curricula.

(d) Part 3 of these regulations prescribes the requirements for certifying and administering ATOs for conducting approved training.

(e) Competency-based approved training for aircraft maintenance personnel shall be conducted within an ATO.

(f) Competency-based approved training for remote flight crew and RPAS maintenance personnel shall be conducted within an ATO.

(g) Competency-based approved training for flight operations officer/flight dispatcher personnel shall be conducted within an ATO.

2.2.5.3 USE OF FLIGHT SIMULATION TRAINING DEVICES

(a) Except as specified in paragraph 2.2.5.3(b) of this subsection, no airman may receive credit for use of any FSTD for satisfying any training, testing, or checking requirement of Part 2 unless that flight simulator or flight training device is approved by the Authority for:

(1) The training, testing, and checking for which it is used;

(2) Each particular manoeuvre, procedure, or crew member function performed; and

(3) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.

(b) The FSTD shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, and heading reference) as those of the aircraft used by the operator.

(c) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.

(d) Operators that have standard instruments shall use simulators that have standard instruments.

(e) Operators shall not conduct differences training or variant training on aircraft that have electronic glass displays with aircraft that have standard instruments.

(f) The Authority may approve a device other than an FSTD for specific purposes.

(g) The use of an FSTD for performing training, testing, and checking for which a flight crew member is to receive credit shall be approved by the Authority, which will ensure that the FSTD is appropriate to the task.

2.2.5.4 KNOWLEDGE AND SKILL TESTS AND CHECKS – TIME, PLACE, DESIGNATED PERSONS, AND FORMAT

(a) Knowledge and skill tests and checks prescribed by or under this Part shall be given at times, at places, and by persons authorised and designated by the Authority.

(b) The knowledge test shall be performed in written or computer format, except for the knowledge test for an instructor licence or an additional instructor rating within the same aircraft category, which may be performed orally.

(c) In addition to the written knowledge test, candidates may be questioned orally during the skill test, as appropriate.

2.2.5.5 KNOWLEDGE AND SKILL TESTS AND CHECKS – PREREQUISITES, PASSING GRADES, AND RETESTING AFTER FAILURE

(a) An applicant for a knowledge test or a skill test shall have received any required endorsement as specified in Part 2 for the applicable licence, rating, or authorisation to show that the applicant has met the training and/or experience requirements to take the knowledge or skill test.

Note: The endorsement requirements may differ between licences and will appear in each licence section in Part 2, as applicable.

(b) An applicant for a knowledge or skill test shall receive written authorisation from the Authority to take, or retake, the test.

(c) An applicant for a knowledge or skill test shall show proper identification at the time of application, in the form of a government-issued identification document that contains the applicant's:

(1) Photograph;

(2) Signature;

(3) Date of birth, which shows the applicant meets or will meet the age requirements of Part 2 for the licence sought before the expiration date of the airman knowledge test report; and

(4) Actual residential address, if different from the applicant's mailing address.

(d) The Authority will specify the minimum passing grades.

(e) An applicant shall, before attempting the skill test for a licence or rating:

(1) Have passed the required knowledge test within the 24-calendar-month period preceding the month the applicant successfully completes the skill test; or

(2) If an applicant for an ATPL, have passed the ATP knowledge test within a period of 7 years before successfully completing the ATP skill test, provided that the applicant is, and has been continuously, employed as a flight crew member by a certificate holder under Part 9 of these regulations at the time of the ATP skill test.

(f) When an applicant is required to provide an aircraft for a skill test, that aircraft shall:

(1) Be airworthy and certificated;

(2) Be capable of performing all areas of operation appropriate to the rating sought and shall have no operating limitations that prohibit its use in any of the areas of operation required for the skill test;

(3) Have no operating limitations that prohibit the tasks required for the skill test;

(4) Be of national, foreign, or military registry of the same category, class, and type, if applicable,

for the licence and/or rating for which the applicant is applying, with an appropriate letter of authorisation for aircraft use in a skill test if the applicant is not the owner of the foreign-registered or military aircraft;

(5) Have:

(i) Fully functioning dual controls;

(ii) At least two pilot stations with adequate visibility for each person to operate the aircraft safety; and

(iii) Flight deck and outside visibility adequate to evaluate the performance of the applicant when an additional jump seat is provided for the examiner.

(g) If the applicant is required to take a segmented skill test using an FSTD and an aircraft, the FSTD shall be approved by the Authority.

(h) RETESTING AFTER FAILURE OF A TEST.

(1) An applicant for a knowledge or skill test who fails that test may apply to retake the test only after the applicant has received:

(i) The necessary training from an authorised instructor who has determined that the applicant is proficient to pass the test; and

(ii) An endorsement from the authorised instructor who gave the applicant the additional training.

(2) An applicant for an FI licence with an aeroplane category rating, who has failed the skill test due to deficiencies in instructional proficiency on stall awareness, spin entry, spins, or spin recovery shall:

(i) Comply with the requirements of paragraph 2.2.5.5(f)(1) of this subsection before being retested;

(ii) Bring an aircraft to the retest that is of the appropriate aircraft category for the rating sought and is certified for spins; and

(iii) Demonstrate satisfactory instructional proficiency on stall awareness, spin entry, spins, and spin recovery to an examiner during the retest.

2.2.5.6 RELIANCE ON TRAINING AND TESTING IN ANOTHER CONTRACTING STATE

(a) The Authority may rely on the training and/or testing system administered by another Contracting State as the basis for its own approved training curriculum, including the administration of written and/or skill test requirements for airman licences, provided that the Authority has an agreement with the other Contracting State whose training and/or testing system is used.

(b) The applicant shall apply for and receive written approval from the Authority prior to receiving training and/or testing in a system administered by another Contracting State.

2.2.6 INSTRUCTOR REQUIREMENTS – GENERAL

(a) An applicant for an instructor licence and ratings or authorisations shall, in addition to specific requirements contained in Part 2, have received and logged training from an authorised instructor on the fundamentals of instructing and shall have passed a knowledge test on the following areas of instructing:

(1) Techniques of applied instruction;

(2) Assessment of student performance in those subjects in which ground instruction is given;

(3) The learning process;

(4) Elements of effective teaching;

(5) Student evaluation and testing, training philosophies;

(6) Training programme development;

(7) Lesson planning;

(8) Classroom instructional techniques;

(9) Use of training aids, including FSTDs as appropriate;

(10) Analysis and correction of student errors;

(11) Human performance relevant to flight instruction;

(12) Hazards involved in simulating system failures and malfunctions in the aircraft; and

(13) Principles of threat and error management.

(b) The following applicants do not need to comply with paragraph 2.2.6(a) of this subsection:

(1) The holder of an instructor licence or authorisation issued under Part 2 who has already passed the knowledge test in the areas of instructing;

(2) The holder of a current teacher's certificate issued by a national or local authority that authorises the person to teach at a secondary educational level or higher; or

(3) A person who provides evidence of an equivalent level of experience acceptable to the Authority.

2.2.7 DESIGNATED EXAMINERS

(a) The Authority may designate private individuals to act as representatives of the Director General of Civil Aviation in examining, inspecting, and testing persons and aircraft for the purpose of issuing airman and aircraft licences, ratings, and certificates.

(b) The specific requirements for each type of designated examiner are contained in the appropriate licensing section of this Part related to the licensing requirements of the persons to be examined.

(c) The Authority will issue each designated examiner a certificate of designated authority and a designee identification card specifying the kinds of designation for which the individual is qualified and the duration of the designation.

2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE

(a) The licence shall be issued:

(1) On first quality paper, plastic cards, or other suitable material as listed in ICAO Annex 1: 5.2; or

(2) As an electronic licence on a self-contained mobile electronic visual display device as listed and specified in ICAO Annex 1: 5.3.

Note: Examples of self-contained mobile electronic visual display devices are mobile phones, tablets, or other mobile devices.

(b) The licence shall be issued:

(1) In a form and manner as prescribed in IS 2.2.8; and

(2) In the English language.

(c) The licence shall contain the expiration date of the licence and ratings.

2.2.9 SUSPENSION OR REVOCATION OF A LICENCE, RATING, AUTHORISATION, OR CERTIFICATE

Note 1: See also 1.3 of Part 1.

2.2.9.1 SUSPENSION OF A LICENCE, RATING, AUTHORISATION, OR VALIDATION CERTIFICATE.

(a) If, in accordance with the Curaçao Civil Aviation Act, the Authority determines that the interests of safety require that a licence, rating, authorisation, or certificate must be suspended, the Authority may act as follows:

(1) If the Authority discovers facts indicating either a lack of competency or lack of qualification, the Authority may require an applicant for, or the holder of, any licence, rating, authorisation, or validation certificate to retake all or part of the knowledge or practical tests required for any licence, rating, authorisation, or validation certificate at issue, renewal, or reissue. The Authority may suspend the validity of any such licence, rating, authorisation, and/or validation certificate pending the results of such retesting.

(2) The Authority will provide to a person whose licence, rating, authorisation, or certificate has been amended, modified, suspended, or revoked, written notice of the amendment, modification, suspension, or revocation and an opportunity to be heard in accordance with 1.3 of these regulations.

(3) The Authority may also, after notifying in writing the person involved, stating the reasons for such action, suspend the validity of any licence, rating, authorisation, and/or validation certificate in the following cases:

(i) During the investigation of an aircraft disaster or incident;

(ii) In cases of proven misconduct, recklessness, or excessive carelessness;

(iii) If the holder has acted in contradiction to the holder's privileges; and/or

(iv) Pending the investigation of a suspected violation of these regulations or the aviation law under which these regulations are affected.

(4) Once the suspension is effective, the person involved shall immediately cease exercising the privileges of the affected licence, certificate, rating, or authorisation. The person involved shall surrender to the Authority within 8 days of receiving the notification of the order all licences or validation certificates in that person's possession that are subject to the suspension. If the person fails to surrender the documents under suspension, the Authority may revoke all such certificates held by that person.

(5) When a suspension is limited to one or more ratings mentioned on the licence or validation certificate, the Authority will provide the person involved with a new licence or validation certificate omitting all ratings which are subject to the suspension.

(6) The Authority may cancel a suspension in the following cases:

(i) If the person under suspension has taken and passed the knowledge or practical tests required for any licence, rating, or authorisation at issue indicated in paragraph 2.2.9.1(a) of this subsection;

(ii) If the person involved has gained the required additional experience; or

(iii) By revocation of the licence, rating, authorisation, and/or validation certificate.

(7) Once the suspension has been cancelled, other than by revocation, the Authority will issue the person involved a new licence or validation certificate.

2.2.9.2 SUSPENSION OF A MEDICAL CERTIFICATE

(a) In case of doubt concerning the medical fitness of the holder of a medical certificate, the Authority may determine that the person involved shall again repeat a complete or partial medical examination and may suspend the validity of that medical certificate until the repeat examination is completed with favourable results.

(b) The Authority may also suspend the validity of a medical certificate in case of a temporary rejection on medical grounds.

(c) The Authority will provide written notification of the suspension, stating the reasons for the suspension, to the person holding the medical certificate.

(d) The person holding the suspended medical certificate shall surrender that medical certificate to the Authority within 8 days after the date of receiving the notification.

(e) In cases in which the medical fitness of the person involved allows it, the Authority may provide the person with a suspended medical certificate of a particular class with a new medical certificate of a lower class.

(f) The Authority may lift a suspension if the medical examination indicated in paragraph 2.2.9.2(a) of this subsection has been passed satisfactorily. If a suspension is lifted, the person involved shall receive a new medical certificate unless the medical certificate was revoked.

2.2.9.3 REVOCATION OF LICENCES, RATINGS, AUTHORISATIONS, OR CERTIFICATES

(a) A licence, rating, authorisation, or certificate shall be revoked if the holder has lost the skills for exercising the privileges mentioned in the document or fails to meet the appropriate medical standards as shown by the results of a medical examination or a test.

(b) A licence, rating, authorisation, or certificate may be revoked if the holder has made a statement contrary to the truth in obtaining or maintaining that licence, rating, authorisation, or certificate, or has provided incorrect data at a medical examination and/or test required for the issue, maintenance, or renewal of the licence, rating, authorisation, or certificate.

(c) A licence, rating, authorisation, or certificate shall be revoked in the case of proven misconduct, recklessness, or excessive carelessness. The holder of the licence will be notified in writing of the revocation with the reasons therefore.

(d) A person who has had a licence or certificate revoked shall be obliged to hand over to the Authority all the licences or certificates in that person's possession applicable to the revocation within 8 days after the date of receiving notification from the Authority.

(e) The person who has been denied the privilege to manipulate the controls of an aircraft by judgment of a court shall be equally obliged to hand over to the Authority all licences and certificates in that person's possession within 8 days after the person has taken cognisance of the judgment or after it can be reasonably assumed that the person has taken cognisance thereof.

2.3 PILOT LICENCES, CATEGORIES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, INSTRUCTORS FOR PILOT LICENSING, AND DESIGNATED PILOT EXAMINERS

Note: The term pilot shall include RP.

2.3.1 GENERAL

2.3.1.1 APPLICABILITY

(a) This section prescribes the requirements for the issue, renewal, and reissue, if applicable, of pilot licences, ratings, and authorisations.

2.3.1.2 GENERAL RULE CONCERNING LICENCES, RATINGS, AND AUTHORISATIONS, AND DESIGNATIONS

(a) An applicant shall, before being issued any pilot licence, rating, authorisation, or designation, meet such requirements with respect to age, knowledge, experience, flight instruction, skill, medical fitness, and language proficiency as are specified for that licence, rating, or authorisation.

(b) A person shall not act as PIC or CP or as remote PIC or remote CP of an aircraft in any of the categories unless that person is the holder of a pilot licence issued in accordance with the requirements of this Part.

(c) An applicant shall, for renewal or reissue of a licence, rating, authorisation, or designation, meet the requirements specified for that licence, rating, authorisation, or designation.

2.3.1.3 AUTHORITY TO ACT AS A FLIGHT CREW MEMBER OR A REMOTE FLIGHT CREW MEMBER

(a) A person shall not act as a pilot flight crew member of an aircraft, or as a remote flight crew member of an RPAS, registered in Curaçao unless a valid licence or a validation certificate is held showing compliance with the requirements of this Part and appropriate to the duties to be performed by that person.

(b) No person may act as the PIC or CP of an aircraft unless that person holds the appropriate category, class, and type rating for the aircraft to be flown.

(c) During a skill test, the applicant acts as PIC but the safety pilot will intervene in safety situations.

2.3.1.4 CREDITING OF FLIGHT TIME

(a) A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction, and PIC flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.

(b) The holder of a pilot licence, when acting as CP at a pilot station of an aircraft certificated for operation by a single pilot but required by Curaçao to be operated with a CP, shall be entitled to be credited with not more than fifty percent (50%) of the CP flight time towards the total flight time required for a higher grade of pilot licence.The Authority may authorise that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a CP and the aircraft is operated in a multi-crew operation.

(c) The holder of a pilot licence, when acting as CP at a pilot station of an aircraft certificated to be operated with a CP, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

(d) The holder of a pilot licence, when acting as PIC under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

2.3.1.5 LIMITATION OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 65TH BIRTHDAY

(a) No person who holds a pilot licence issued under Part 2 shall serve as a PIC in single-pilot operations on a civil aircraft of Curaçao registry engaged in commercial air transport operations if the person has reached his or her 60th birthday.

(b) No person who holds a pilot licence issued under Part 2 shall serve as a pilot of a civil aircraft of Curaçao registry engaged in commercial air transport operations requiring more than one pilot if the person has reached his or her 65th birthday.

Note: Attention should be paid to new ICAO Annex 1 requirements for pilots who have attained their 60th birthday; the validity period of medical assessment shall be reduced to 6 months.

2.3.1.6 RECENT EXPERIENCE AND PROFICIENCY REQUIREMENTS FOR NON-COMMERCIAL AIR TRANSPORT OPERATIONS

Note: For commercial air transport operations, see 8.4 of these regulations.

(a) In order to maintain recency and proficiency, all pilots shall meet the applicable requirements in paragraphs 2.3.1.6(b) through (g) of this subsection.

(b) No person shall operate as PIC of an aircraft unless that pilot has, within 24 months, accomplished a flight review that includes:

(1) A review of the current general operating and flight rules of Part 8 of these regulations;

(2) A review of those manoeuvres and procedures that, at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot licence;

(3) A proficiency check in the appropriate aircraft for the licence, ratings, or authorisations held unless, within the past 24 months, the pilot has satisfactorily completed one of the following:

(i) A pilot proficiency check or practical test, conducted by an authorised CAA examiner, for a pilot certificate, rating, or operating privilege; or

(ii) A practical test conducted by an authorised CAA examiner for the issuance of an FI certificate or an additional rating on an FI certificate, the renewal of an FI certificate, or the reinstatement of an FI certificate; and

(4) A logbook endorsement from an authorised instructor who gave the review, certifying that the person has satisfactorily completed the review required in paragraphs 2.3.1.6(b)(3)(i) and (ii) and has completed the applicable proficiency check.

(c) AIRCRAFT TYPE CERTIFICATED FOR MORE THAN ONE PILOT.

(1) No person may act as PIC of an aircraft type certificated for more than one pilot or a turbojet aircraft unless, since the beginning of the past 12 calendar months, that pilot has passed a proficiency check in an aircraft, or in an FSTD approved for the purpose, with an authorised representative of the Authority.

(2) No person may act as CP of an aircraft type certified for more than one pilot unless, since the beginning of the past 12 calendar months, he or she has logged three take-offs and landings as the sole manipulator of the controls in the aircraft of the same type, or in an FSTD approved for the purpose, with each take-off and landing to full stop, and has satisfactorily completed ground training appropriate to the aircraft type.

(d) Aircraft type certificated for single pilot and requiring a type rating on the pilot licence. No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the past 12 calendar months, he or she has passed a proficiency check with an authorised representative of the Authority in the category, class, and type of aircraft to be operated, or in an FSTD approved for the purpose.

(e) Recency for carriage of passengers. No person may act as PIC or CP of an aircraft carrying passengers unless, within the preceding 90 days, that pilot has:

(1) Made three take-offs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type or in an FSTD approved for the purpose.

(2) For a tailwheel aeroplane, made the three take-offs and landings in a tailwheel aeroplane, with each take-off and landing to a full stop.

(3) For night operations, made the three take-offs and landings required by paragraph 2.3.1.6(e)(1) of this subsection at night, with each take-off and landing to a full stop.

(f) IFR OPERATIONS. A pilot shall not operate as PIC of an aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless, within the preceding 6 months, that pilot has:

(1) Had an instrument proficiency check on the manoeuvres in the IR Skill Test and Proficiency Check contained in the applicable CAA STSs; or

(2) Has logged, in actual or simulated conditions, 6 hours of instrument flight time including at least 3 hours in flight in the category of aircraft, to include:

(i) Six instrument approaches;

(ii) Holding procedures and tasks; and

(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(g) NIGHT VISION GOGGLE OPERATIONS. No person may act as PIC in a night vision goggle operation unless that pilot has:

(1) Performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle operation within the preceding 60 days to carry passengers on board or, within the preceding 120 days, to act as PIC without passengers on board:

(i) Three take-offs and landings, with each take-off and landing including a climbout, a cruise, a descent, and an approach phase of flight, if the pilot intends to use night vision goggles during the take-off and landing phase of flight;

(ii) Three hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;

(iii) Three area departure and area arrival tasks;

(iv) Three tasks of transitioning from aided night flight to unaided night flight and back to aided night flight;

(v) Three-night vision goggle operations or, when operating helicopters or powered-lifts, six night vision goggle operations; or

(vi) Has successfully completed a proficiency check with an authorised representative of the Authority.

2.3.1.7 RECORDING OF FLIGHT TIME

(a) Each person shall document and record the following time in a manner acceptable to the Authority, as prescribed in IS 2.3.1.7:

(1) Training and experience used to meet the requirements for a licence, rating, or authorisation issued in accordance with this Part; and

(2) The experience required to show recent flight experience according to the requirements of this Part.

2.3.2 CATEGORY, CLASS, AND TYPE RATINGS, CATEGORY II/III, PBN AUTHORIZATIONS AND ENDORSEMENTS

2.3.2.1 GENERAL

(a) The holder of a pilot licence shall not be permitted to act as PIC or CP of an aircraft unless the holder has received the applicable ratings, authorisations, and/or endorsements as follows:

(1) The appropriate aircraft category rating specified in this Part;

(2) The appropriate class rating when required in accordance with this Part;

(3) A type rating when required in accordance with this Part;

(4) An authorisation when required in accordance with this Part; or

(5) An endorsement when required in accordance with this Part.

(b) The applicant shall meet the appropriate requirements of Part 2 for the aircraft rating, authorisation, or endorsement sought.

(c) When an applicant demonstrates skill and knowledge for the initial issue or reissue of a pilot licence, the category and ratings appropriate to the class or type of aircraft used in the demonstration will be entered on the licence.

(d) For the purpose of training, testing, or specific special purpose non-revenue, non-passenger-carrying flights, special authorisation may be provided in writing to the licence holder by the Authority

in place of issuing the class or type rating in accordance with paragraph 2.3.2.1(a) of this subsection. This authorisation shall be limited in validity to the time needed to complete the specific flight.

2.3.2.2 CATEGORY RATINGS

(a) The category of aircraft shall be endorsed on the licence as a rating.

(b) INITIAL CATEGORY RATING.

(1) An applicant for a pilot licence, after successfully meeting all the requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category and, if applicable, the class or type rating endorsed on the licence.

(c) ADDITIONAL CATEGORY RATINGS.

(1) Any additional category rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the category rating is granted.

(2) The holder of a pilot licence seeking an additional category shall:

(i) Meet the requirements of this Part appropriate to the privileges for which the category rating is sought;

(ii) Have an endorsement in that licence holder's logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(iii) Pass the required knowledge test; and

(iv) Pass the required skill test for the aircraft category and, if applicable, the class rating being sought.

(d) PRIVILEGES. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.

(e) The validity, renewal, or reissue of the category rating will coincide with the requirements for the validity, renewal, or reissue of the licence and, if applicable, the class or type rating contained in this Part.

2.3.2.3 CLASS RATINGS

(a) The class of aircraft, if applicable, shall be endorsed on the licence as a rating.

(b) INITIAL CLASS RATING.

(1) An applicant for a pilot licence, after successfully meeting all the requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category, class, and, if applicable, type rating endorsed on the licence.

(c) ADDITIONAL CLASS RATINGS.

(1) Any additional class rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the class rating is granted.

(2) The holder of a pilot licence seeking an additional class rating shall:

(i) Meet the requirements of this Part appropriate to the privileges for which the class rating is sought;

(ii) Have an endorsement in that licence holder's logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(iii) Pass the required knowledge test, unless the applicant holds a class rating within the same category of aircraft at the same level of pilot licence at either the private or commercial levels; and

(iv) Pass the required skill test for the aircraft class rating being sought.

(d) PRIVILEGES Subject to compliance with the requirements specified in Part 2, the privileges of the

holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.

(e) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of:

(1) A multi-engine class rating is 1 calendar year; and

(2) A single-engine class rating, is 2 calendar years.

(f) RENEWAL TIME FRAME.

(1) For the renewal of a single-engine class rating, the pilot shall:

(i) Within the preceding 24 calendar months, complete a proficiency check on areas of operation listed in the skill test that is applicable to the level of licence, category, and class rating; and

(ii) Have completed 12 hours of flight time within the 12 months preceding the expiry date.

(2) For the renewal of a multi-engine class rating the pilot shall:

(i) Within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the skill test that is applicable to the level of licence, category, and class rating; and

(ii) Have completed 10 route sectors within the 3 months preceding the expiry date.

(3) Where applicable, the proficiency check shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure.

(4) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(g) RE-ISSUE.

(1) If the class rating has expired, the applicant shall:

(i) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(ii) Pass the required skill test for the applicable aircraft category and/or class.

(2) Where applicable, the skill test shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.

2.3.2.4 TYPE RATINGS

(a) The type rating shall be endorsed on the licence as a rating, including any limitations.

(b) The holder of a pilot licence seeking an additional aircraft type rating shall:

(1) Have received training from an authorised instructor in the applicable type of aircraft and/or approved FSTD, including the following:

(i) Normal flight procedures and manoeuvres during all phases of flight;

(ii) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, systems, and airframe;

(iii) Where applicable, instrument procedures, including instrument approach, missed approach, and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure;

(iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation, and use of checklists; and

(v) For the issue of an aeroplane category type rating, upset prevention and recovery training.

(2) Hold or concurrently obtain an IR that is appropriate to the aircraft category, class, or type rating sought;

(3) Have an endorsement in that licence holder's logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(4) Demonstrate the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the duties of a PIC or a CP; and

(5) Demonstrate, at the ATPL level, an extent of knowledge as specified in paragraph 2.3.7.1(c) of this Part.

(6) Pass the required skill test at the ATPL level, applying CRM concepts, applicable to the aircraft category, class, and type rating being sought;

(i) Applicants seeking a private or commercial licence in an aircraft that requires a type rating shall also complete the applicable portions of either the PPL or CPL skill test in conjunction with the ATPL skill test.

(7) Perform the skill test under IFR unless the aircraft used for the skill test is not capable of the instrument manoeuvres and procedures required for the skill test, in which case the applicant may:

(i) Obtain a type rating limited to "VFR only;" and

(ii) Remove the "VFR only" limitation for each aircraft type in which the applicant demonstrates compliance with the ATPL skill test under instrument conditions.

(c) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a type rating are to act as a pilot on the type of aircraft specified in the rating. When a type rating is issued limiting the privileges to act as CP or limiting the privileges to act as pilot only during the cruise phase of flight, such limitation shall be endorsed on the rating.

(d) VALIDITY. Subject to compliance with the requirements in this Part, the validity period of a type rating is 1 calendar year.

(e) RENEWAL.

(1) For the renewal of a type rating, the pilot shall:

(i) Within the preceding 12 calendar months, complete a proficiency check on the areas of operation listed in the skill test for the appropriate category, type, and, if applicable, class of aircraft; and

(ii) Have completed 10 route sectors within the 3 months preceding the expiry date

(2) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(f) RE-ISSUE If the type rating has expired the applicant shall:

(1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test for the appropriate category, type, and, if applicable, class of aircraft.

Note 1: Until 05 March 2025, the Licensing Authority may endorse a type rating for aircraft of the powered-lift category on an aeroplane or helicopter pilot licence. The endorsement of the rating on the licence shall indicate that the aircraft is part of the powered-lift category. The training for the type rating in the powered-lift category shall be completed during a course of approved training, shall take into account the previous experience of the applicant in an aeroplane or a

helicopter as appropriate and incorporate all relevant aspects of operating an aircraft of the powered-lift category.

Note 2: The aeroplane upset prevention and recovery training may be integrated in the type rating programme or may be conducted immediately after, as an additional module.

2.3.2.5 CATEGORY II AND III AUTHORISATION

(a) The Authority will issue a CAT II or CAT III pilot authorisation by letter, to accompany the pilot licence, when the pilot meets the requirements contained in this subsection and in IS 2.3.2.5.

(b) General.

(1) A person, not flying for an AOC holder under Part 9 of these regulations, may not act as pilot of an aircraft during CAT II or III operations unless that person holds a CAT II or III pilot authorisation for that category, class, or type of aircraft.

(2) The applicant for a CAT II or III pilot authorisation shall:

(i) Hold a pilot licence with an IR or an ATPL; and

(ii) Hold a category and class or type rating for the aircraft for which the authorisation is sought.

(c) KNOWLEDGE. The applicant for a CAT II or III pilot authorisation shall have completed the theoretical knowledge instruction on the subjects listed in IS 2.3.2.5.

(d) EXPERIENCE. The applicant for a CAT II or III pilot authorisation shall have at least:

(1) 50 hours of night flight time as PIC;

(2) 75 hours of instrument time under actual or simulated instrument conditions; and

(3) 250 hours of cross-country flight time as PIC.

(e) FLIGHT INSTRUCTION. The applicant for a CAT II or III pilot authorisation shall have completed the flight instruction on the areas of operation listed in IS 2.3.2.5.

(f) SKILL. The applicant for a CAT II or III pilot authorisation shall pass a skill test including the areas of operation listed in IS 2.3.2.5.

(g) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of a CAT II or III authorisation is 6 months.

(h) RENEWAL. For the renewal of a CAT II or III pilot authorisation, the pilot shall have completed a proficiency check including the areas of operation listed in IS 2.3.2.5.

(i) RE-ISSUE. If the CAT II or III has expired, the applicant shall:

(1) Have received refresher training from an authorised instructor, with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test on the subjects listed in IS 2.3.2.5.

2.3.2.6 PERFORMANCE-BASED NAVIGATION PILOT AUTHORISATION

(a) Instrument rated pilots may only fly in accordance with performance-based navigation ('PBN') procedures after they have been authorized for PBN privileges.

(b) The Authority will issue an instrument rated pilot a PBN pilot authorisation by letter, to accompany the pilot licence, when the pilot meets the requirements contained in this subsection and IS 2.3.2.6.

(c) GENERAL.

(1) A person, not flying for an AOC holder under Part 9 of these regulations, may not act as pilot of an aircraft during PBN operations unless that person holds a PBN pilot authorisation.

(2) The applicant for a PBN pilot authorisation shall hold a pilot licence with an IR or an ATPL.

(d) IR pilots without PBN privileges may only fly on routes and approaches that do not require PBN privileges and no PBN items shall be required for the renewal of their IR.

(e) The requirements of paragraphs 2.3.2.6(f) and 2.3.2.6(h) shall be deemed to have been fulfilled where the authority considers that the competence acquired, either through training or from familiarity with PBN operations, is equivalent to the competence acquired through the courses referred to in paragraph 2(a) and (b) and the pilot demonstrates such competence to the satisfaction of the examiner at the proficiency check or skill test referred to in paragraph 2.3.2.6(i).

(f) KNOWLEDGE. The applicant for a PBN pilot authorisation shall have completed the theoretical knowledge instruction on the subjects listed in IS 2.3.2.6.

(g) EXPERIENCE. The applicant for a PBN pilot authorisation shall have completed the IR experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.

(h) FLIGHT INSTRUCTION. The applicant for a PBN pilot authorisation shall have completed the flight instruction on the areas of operation listed in IS 2.3.2.6.

(i) SKILL. The applicant for a PBN pilot authorisation shall pass a skill test including the areas of operation listed in IS 2.3.2.6.

(j) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a PBN autorisation shall be to pilot an aircraft of the appropriate category under IFR operations with a minimum decision height of no less than 200 feet (60 m).

(k) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of a PBN authorisation is 12 months.

(l) RENEWAL. For the renewal of a PBN pilot authorisation, the pilot shall have completed a proficiency check including the areas of operation listed in IS 2.3.2.6.

(m) RE-ISSUE. If the PBN has expired, the applicant shall:

(1) Have received refresher training from an authorised instructor, with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test on the subjects listed in IS 2.3.2.6.

2.3.2.7 COMPLEX AEROPLANE ENDORSEMENT

(a) No person shall act as PIC of a complex aeroplane, including a seaplane, unless the person has:

(1) Received and logged ground and flight training from an authorised instructor in a complex aeroplane or an FSTD that is representative of a complex aeroplane and has been found proficient in the operation and systems of the aeroplane; and

(2) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a complex aeroplane.

2.3.2.8 HIGH-PERFORMANCE AEROPLANE ENDORSEMENT

(a) No person shall act as PIC of a high-performance aeroplane unless the person has:

(1) Received and logged ground and flight training from an authorised instructor in a high-performance aeroplane or an FSTD that is representative of a high-performance aeroplane and has been found proficient in the operation and systems of the aeroplane; and

(2) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a high-performance aeroplane.

2.3.2.9 HIGH-ALTITUDE AIRCRAFT ENDORSEMENT

(a) No person shall act as PIC of a pressurised aircraft capable of operating at high altitudes (an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25 000 ft MSL)

unless the person has:

(1) Received and logged ground training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished ground training in at least the following subjects:

(i) High-altitude aerodynamics and meteorology;

(ii) Respiration;

(iii) Effects, symptoms, and causes of hypoxia and any other high-altitude sickness;

(iv) Duration of consciousness without supplemental oxygen;

(v) Effects of prolonged usage of supplemental oxygen;

(vi) Causes and effects of gas expansion and gas bubble formation;

(vii) Physical phenomena and incidents of decompression; and

(viii) Any other physiological aspects of high-altitude flight.

(2) Received and logged flight training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished flight training in a pressurised aircraft, or in an FSTD that is representative of a pressurised aircraft, in at least the following subjects:

(i) Normal cruise flight operations while operating above 25 000 ft MSL;

(ii) Proper emergency procedures for simulated rapid decompression without actually depressurizing the aircraft; and

(iii) Emergency descent procedures.

2.3.2.10 NIGHT VISION GOGGLES ENDORSEMENT

(a) No person shall act as pilot of an aircraft using night vision goggles unless that person has received training from an authorised instructor and has received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following ground training:

(1) Applicable requirements of this Part and Part 8 of these regulations that relate to night vision goggle limitations and flight operations;

(2) Aeromedical factors related to the use of night vision goggles, including how to protect night vision, how the eyes adapt to night, self-imposed stresses that affect night vision, effects of lighting on night vision, cues used to estimate distance and depth perception at night, and visual illusions;

(3) Normal, abnormal, and emergency operations of night vision goggle equipment;

(4) Night vision goggle performance and scene interpretation; and

(5) Night vision google operation flight planning, including night terrain interpretation and factors affecting terrain interpretation.

(b) No person shall act as pilot of an aircraft using night vision goggles unless that person has received training from an authorised instructor and has received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following flight training:

(1) Pre-flight and use of internal and external aircraft light systems for night vision goggle operations;

(2) Pre-flight preparation of night vision goggles for night vision goggle operations;

(3) Proper piloting techniques when using night vision goggles during the take-off, climb, en route, descent, and landing phases of flight; and

(4) Normal, abnormal, and emergency flight operations using night vision goggles.

(c) The requirements under paragraphs 2.3.2.10(a) and (b) of this subsection do not apply if a person can document satisfactory completion of any of the following pilot proficiency checks using night vision goggles in an aircraft:

(1) A pilot proficiency check on night vision goggle operations conducted by the military;

(2) A pilot proficiency check on night vision goggle operations under this Part or Part 8 of these regulations conducted by an examiner or check pilot; or

(3) A pilot proficiency check on night vision goggle operations conducted by a night vision goggle manufacturer or authorised instructor, when the pilot:

(i) Is employed by a government or law enforcement agency; and

(ii) Has logged at least 20 hours as PIC in night vision goggle operations.

2.3.3 STUDENT PILOTS

2.3.3.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a student pilot authorisation shall be at least 16 years of age.

(b) KNOWLEDGE. The applicant for a student pilot authorisation shall receive and log ground training from an authorised instructor on the following subjects:

(c) Applicable sections of Part 2 for the category of aircraft to be flown and of Part 8 of these regulations;

(d) Airspace rules and procedures for the aerodrome where the student will perform solo flight; and

(e) Flight characteristics and operation limitations for the make and model of aircraft to be flown.

(f) PRE SOLO FLIGHT INSTRUCTION. Prior to conducting a solo flight, a student pilot shall have:

(g) Received and logged flight training for the manoeuvres and procedures applicable to the aircraft category, including flight training in those manoeuvres and procedures at night, if the solo flight is to be conducted at night; and

(h) Demonstrated satisfactory proficiency and safety, as judged by an authorised instructor, on the manoeuvres and procedures for the appropriate category and class, if applicable, of aircraft.

(i) SOLO FLIGHT REQUIREMENTS. A student pilot shall not fly solo:

(j) Unless holding at least a Class 2 medical certificate;

(k) Unless under the supervision of, or with the authority of, a licensed FI; and

(l) In international flight unless there is a special or general arrangement between Curaçao and the intended State of flight.

2.3.3.2 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AEROPLANE CATEGORY

An applicant for a student pilot authorisation in the aeroplane category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.2.

2.3.3.3 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – HELICOPTER CATEGORY

An applicant for a student pilot authorisation in the helicopter category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.3.

2.3.3.4 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – POWERED-LIFT CATEGORY

An applicant for a student pilot authorisation in the powered-lift category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.4.

2.3.3.5 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AIRSHIP CATEGORY

An applicant for a student pilot authorisation in the airship category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.5.

2.3.3.6 RESERVED

2.3.3.7 RESERVED

2.3.4 RESTRICTED PRIVATE PILOT LICENCE

2.3.4.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a RPPL shall be not less than 17 years of age.

(b) MEDICAL FITNESS. The applicant for a RPPL shall hold a current Class 2 Medical Certificate as issued under Part 2.

(c) KNOWLEDGE AREAS. The applicant for a RPPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft to be included on the licence:

(1) AIR LAW:

(i) Rules and regulations relevant to the holder of a PPL, rules of the air, appropriate air traffic services practices and procedures.

(2) AIRCRAFT GENERAL KNOWLEDGE:

(i) Principles of operation and functioning of powerplants, systems and instruments.

(ii) Operating limitations of aeroplanes and the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document.

(iii) For helicopter and powered lift, transmission (power-trains) where applicable;

(iv) For airship, physical properties of gases.

(3) FLIGHT PERFORMANCE AND PLANNING:

(i) Effects of loading and mass distribution on flight characteristics, mass and balance calculations.

(ii) Use and practical application of take-off or launching, landing and other performance data.

(iii) Pre-flight and en-route flight planning appropriate to private operations under VFR, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, position reporting procedures, altimeter setting procedures, operations in areas of high-density traffic.

(4) HUMAN PERFORMANCE:

(i) Human performance relevant to the appropriate category of aircraft.

(ii) Principles of threat and error management.

(5) METEOROLOGY:

(i) Application of elementary aeronautical meteorology, use of, and procedures for obtaining, meteorological information, altimetry, hazardous weather conditions.

(6) NAVIGATION:

(i) Practical aspects of air navigation and dead-reckoning techniques as well as the use of basic radio navigation and use of aeronautical charts.

(7) OPERATIONAL PROCEDURES:

(i) Application of threat and error management to operational procedures.

(ii) Altimeter setting procedures.

(iii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations.

(iv) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards.

(v) In the case of the helicopter, and if applicable, powered lift, settling with power; ground resonance; retreating blade stall, dynamic roll-over and other operation hazards, safety procedures, associated with flight under visual meteorological conditions (VMC).

(8) PRINCIPLES OF FLIGHT:

(i) Principles of flight relating to the appropriate category of aircraft.

(9) COMMUNICATIONS:

(i) Radiotelephony communications procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

(d) KNOWLEDGE TESTING. The applicant for a RPPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required written knowledge test on the knowledge areas listed in Paragraph 2.3.4.1(c) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for a RPPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for a RPPL shall:

(1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.

(2) Have demonstrated by passing a skill test the ability to perform as PIC of an aircraft, within the appropriate category areas of operation described in the appropriate IS 2.3.4 listed below, with a degree of competency appropriate to the privileges granted to the holder of a RPPL.

(3) Have demonstrated the ability to:

(i) Recognise and manage threats;

(ii) Operate the aircraft within its limitations;

(iii) Complete all manoeuvres with smoothness and accuracy;

(iv) Exercise good judgment and airmanship;

(v) Apply aeronautical knowledge; and

(vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

(g) PRIVILEGES.

(1) Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a RPPL shall be to act, but not for remuneration, as PIC or co-pilot of an aeroplane aircraft within the appropriate aircraft category engaged in non-revenue flights.

(2) The holder of a RPPL may act as PIC on a flight during day time that remains within 25 nm of the Curaçao Hato International Airport ARP (or: above the island of Curaçao, klein Curaçao and its territorial waters).

(3) The holder of a RPPL may only act as a pilot during cross country flights under the supervision of, or with the authority of, a licensed flight instructor.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. A restricted private pilot licence that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the restricted private pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.

2.3.4.2 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL - AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for a RPPL(A) shall have completed not less than 30 hours of flight time, as pilot of aeroplanes, appropriate to the class rating sought. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 30 hours. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in flight simulation training device approved by the Authority.

(2) The applicant shall have completed in aeroplanes not less than 10 hours of solo flight time under the supervision of an authorised flight instructor.

(3) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as PIC towards a RPPL(A).

(b) FLIGHT INSTRUCTION.

(1) The applicant for a RPPL(A) shall receive and log not less than 20 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.4.2. These 20 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognize and Manage Threats and errors;

(ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the aeroplane by external visual reference;

(v) Flight at critically slow airspeeds, recognition of, and recovery from, incipient and full stalls;

(vi) Flight at critically high airspeeds, recognition of, and recovery from, spiral dives;

(vii) Normal and cross-wind take-offs and landings;

(viii) Maximum performance (short field and obstacle clearance take-offs, short-field landings);

(ix) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;

(x) Emergency operations, including simulated aeroplane equipment malfunctions; and

(xi) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;

(xii) As further specified in IS 2.3.4.2.

(c) The requirements for the skill test for the RPPL(A) are included in IS 2.3.4.2.

2.3.4.3 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL—HELICOPTER CATEGORY

(a) Experience.

(1) The applicant for a RPPL(H) shall have completed not less than 30 hours of flight time as a pilot of helicopters. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 30 hours. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in a flight simulation training device approved by the Authority.

(2) The applicant shall have completed in helicopter not less than 10 hours of solo flight time under the supervision of an authorised flight instructor.

(3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a RPPL(H).

(b) Flight Instruction.

(1) The applicant for a RPPL(H) shall receive and log not less than 20 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.4.3. These 20 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the helicopter by external visual reference;

(v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) Ground manoeuvring and run-ups, hovering, take-offs and landings – normal, out of wind and sloping ground;

(vii) Take-offs and landings with minimum necessary power, maximum performance take-off and landing techniques, restricted site operations, quick stops;

(viii) Emergency operations, including simulated helicopter equipment malfunctions, autorotative approach and landing; and

(ix) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL(H) are included in IS 2.3.4.3.

2.3.4.4 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL – POWERED-LIFT CATEGORY

(a) Experience.

(1) The applicant for a RPPL- Powered Lift shall have completed not less than 30 hours of flight time as pilot of powered lift. The Authority should determine whether such experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 30 hours.

(2) The applicant shall have completed in a powered lift aircraft not less than 10 hours of solo flight time under the supervision of an authorised flight instructor.

(3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a RPPL(H).

(b) Flight Instruction. The applicant shall have received not less than 20 hours dual instruction from an authorised instructor in at least the following areas:

(1) Recognise threat and error management;

(2) Pre-flight operations, including mass and balance determination, powered lift inspection and servicing;

(3) Aerodrome and traffic operations, collision avoidance precautions and procedures;

(4) Control of the powered lift by external visual reference;

(5) Ground manoeuvring and run-ups, hover and rolling take-offs and climb out, hover and rolling approach and landings – normal, out of wind and slopping ground;

(6) Take-offs and landings with minimum necessary power, maximum performance take-off and landing techniques, restricted site operations, quick stops;

(7) Emergency operations, including simulated powered lift equipment malfunctions, power of reconversion to autorotation and autorotative approach, where applicable, transmission and interconnect driveshaft failure, where applicable; and

(8) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL-powered-lift category are included in IS 2.3.4.4.

2.3.4.5 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE RPPL— AIRSHIP CATEGORY

(a) Experience. The applicant for a RPPL- Airship shall have completed not less than 15 hours of flight time as pilot of airships including at least:

(1) Five take-offs and five landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern of an aerodrome;

(2) Three hours of instrument time; and

(3) Five hours as pilot assuming the duties of the PIC under the supervision of the PIC.

(b) Flight Instruction. The applicant shall have received dual instruction from an authorised instructor in at least the following areas:

(1) Pre-flight operations, including mass and balance determination, airships inspections and servicing;

(2) Ground reference manoeuvres;

(3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;

(5) Control of the airships by external visual reference;

(6) Take-offs and landings and go-around;

(7) Maximum performance (obstacle clearance) take-offs;

(8) Flight by reference solely to instruments, including the completion of a level 180 degree turn;

(9) Navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;

(10) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and

(11) Radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL—Airship are included in IS 2.3.4.5.

2.3.4.6 RESERVED

2.3.4.7 RESERVED

2.3.5 PRIVATE PILOT LICENCE

2.3.5.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a PPL in all categories shall be at least 17 years of age.

(b) MEDICAL FITNESS. The applicant for a PPL shall hold a current Class 2 medical certificate as issued under Part 2.

(c) KNOWLEDGE AREAS. The applicant for a PPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a PPL and appropriate to the category of aircraft to be included on the licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the holder of a PPL; rules of the air; appropriate ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) Principles of operation and functioning of engines, systems, and instruments;

(ii) Operating limitations of aeroplanes and the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;

(iii) For helicopter and powered-lift, transmission (power trains) where applicable;

(iv) For airship, physical properties and practical application of gases;

(3) FLIGHT PERFORMANCE AND PLANNING.

(i) Effects of loading and mass distribution on flight characteristics; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to private operations under VFR; preparation and filing of ATS flight plans; appropriate ATS procedures; position reporting procedures; altimeter setting procedures; and operations in areas of high-density traffic;

(4) HUMAN PERFORMANCE.

(i) Human performance relevant to the appropriate category of aircraft;

(ii) Principles of threat and error management;

(5) METEOROLOGY.

(i) Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions;

(6) NAVIGATION.

(i) Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical

charts;

(7) OPERATIONAL PROCEDURES.

(i) Application of threat and error management to operational procedures;

(ii) Altimeter setting procedures;

(iii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iv) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence, and other operating hazards;

(v) In the case of helicopter and, if applicable, powered-lift, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures associated with flight under VMC;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate category of aircraft; and

(9) RADIOTELEPHONY.

(i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

(d) KNOWLEDGE TESTING. The applicant for a PPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required written knowledge test on the knowledge areas listed in paragraph 2.3. 5.1(c) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for a PPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for a PPL shall have:

(1) Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test;

(2) Demonstrated by passing a skill test the ability to perform as PIC of an aircraft within the appropriate category areas of operation described in the appropriate STS listed below with a degree of competency appropriate to the privileges granted to he holder of a PPL; and

(3) Demonstrated the ability to:

(4) Recognise and manage threats;

(5) Operate the aircraft within its limitations;

(6) Complete all manoeuvres with smoothness and accuracy;

(7) Exercise good judgement and airmanship;

(8) Apply aeronautical knowledge; and

(9) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a PPL shall be to act, but not for remuneration, as PIC or CP of an aircraft within the appropriate aircraft category engaged in non-revenue flights.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. A PPL that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the PPL has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the private pilot skill test.

2.3.5.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for a PPL(A) shall have completed not less than 55 hours of flight time, or 50 hours if completed during a course of approved training, as a pilot of aeroplanes appropriate to the class rating sought. The Authority will determine whether experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 55 or 50 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in an FSTD approved by the Authority.

(2) The applicant for a PPL(A) shall have completed in aeroplanes not less than 10 hours of solo flight time under the supervision of an authorised FI, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(3) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as PIC towards a PPL(A).

(b) FLIGHT INSTRUCTION.

(1) The applicant for a PPL(A) shall have received and logged not less than 15 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.5.2 for PPL(A). These 15 hours may include 5 hours completed in an FSTD. The 15 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(2) The instructor shall ensure that the applicant for a PPL(A) has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, aeroplane inspection, and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the aeroplane by external visual reference;

(v) Flight at critically slow airspeeds; recognition of and recovery from incipient and full stalls;

(vi) Flight at critically high airspeeds; recognition of and recovery from spiral dives;

(vii) Normal and crosswind take-offs and landings;

(viii) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;

(ix) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;

(x) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids;

(xi) Emergency operations, including simulated aeroplane equipment malfunctions;

(xii) Operations to, from, and transiting controlled aerodromes; compliance with ATS

procedures;

(xiii) Radiotelephony procedures and phraseology; and

(xiv) As further specified in the IS 2.3.5.2 for PPL(A).

(3) If the privileges of the PPL(A) are to be exercised at night, the applicant shall have received 4 hours of dual instruction in aeroplanes in night flying, including take-offs, landings, and 1 hour of navigation.

Note: Training can be performed by an individually authorised FI, by an authorised FI in a flying club, or in an ATO.

(c) The requirements for the skill test for the PPL(A) are included in the IS 2.3.5.2 for PPL(A).

Note: The instrument experience specified in 2.3.5.2(a)(1) and the night flying dual instruction in 2.3.5.1(g) do not entitle the holder of a private pilot licence to aeroplanes under IFR.

2.3.5.3 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – HELICOPTER CATEGORY

(a) EXPERIENCE.

(1) The applicant for a PPL(H) shall have completed not less than 55 hours of flight time, or 50 hours if completed during a course of approved training, as a pilot of helicopters. The Authority will determine whether experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 55 or 50 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in an FSTD approved by the Authority.

(2) The applicant for a PPL(H) shall have completed in helicopters not less than 10 hours of solo flight time under the supervision of an authorised FI, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.

(3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a PPL(H).

(b) FLIGHT INSTRUCTION.

(1) The applicant for a PPL(H) shall have received and logged not less than 15 hours of dual instruction from an authorised instructor on the subjects listed in theIS 2.3.5.3 for PPL(H). These 15 hours may include 5 hours completed in an FSTD. The 15 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.

(2) The instructor shall ensure that the applicant for a PPL(H) has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, helicopter inspection, and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the helicopter by external visual reference;

(v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind, and sloping ground;

(vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(viii) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids, including a flight of at least 1 hour;

(ix) Emergency operations, including simulated helicopter equipment malfunctions; autorotative approach and landing;

(x) Operations to, from, and transiting controlled aerodromes; compliance with ATS procedures;

(xi) Radiotelephony procedures and phraseology; and

(xii) As furthered specified in the IS 2.3.5.3 for PPL(H).

(3) If the privileges of the PPL(H) are to be exercised at night, the applicant shall have received 4 hours of dual instruction in helicopters in night flying, including take-offs, landings, and 1 hour of navigation.

(c) The requirements for the skill test for the PPL(H) are included in IS 2.3.5.3 for PPL(H).

Note: The instrument experience specified in 2.3.5.3(a)(1) and the night flying dual instruction in2.3.5.1(g) do not entitle the holder of a private pilot licence to helicopters inder IFR.

2.3.5.4 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – POWERED LIFT CATEGORY

(a) EXPERIENCE.

(1) The applicant for a PPL(PL) shall have completed not less than 55 hours of flight time as pilot of powered-lifts. The Authority will determine whether such experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 55 hours. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in an FSTD approved by the Authority.

(2) When the applicant for a PPL(PL) has flight time as a pilot of aircraft in other categories, the Authority will determine whether such experience is acceptable and, if so, the extent to which the flight time in paragraph 2.3.5.4(a) of this subsection may be reduced.

(3) The applicant for a PPL(PL) shall have completed in a powered-lift aircraft not less than 10 hours of solo flight time under the supervision of an authorised FI, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(b) FLIGHT INSTRUCTION. The applicant for a PPL(PL) shall have received not less than 15 hours dual instruction in powered-lifts from an authorised instructor in at least the following areas:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;

(3) Aerodrome and traffic operations, collision avoidance precautions and procedures;

(4) Control of the powered-lift by external visual reference;

(5) Ground manoeuvring and run-ups; hover and rolling take-offs and climbout; hover and rolling approach and landings – normal, out of wind, and sloping ground;

(6) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(7) Flight by reference solely to instruments, including the completion of a level 180° turn;

(8) Recovery at the incipient stage from settling with power; recovery techniques fom low-rotor rpm within the normal;

(9) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids, including a flight of at least 1 hour;

(10) Emergency operations, including simulated powered-lift equipment malfunctions; power of reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable;

(11) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

(12) Radiotelephony procedures and phraseology; and

(13) As further specified in IS 2.3.5.4 for PPL(PL).

(c) The requirements for the skill test for the PPL(PL) are included in the IS 2.3.5.4 for PPL(PL).

Note: The instrument experience specified in 2.3.5.4(b)(7) and the night flying dual instruction in 2.3.5.1(g) do not entitlethe holder of a private pilot licence to pilot powered lifts under IFR.

2.3.5.5 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE PPL – AIRSHIP CATEGORY

(a) EXPERIENCE. The applicant for a PPL(AS) shall have completed not less than 25 hours of flight time as pilot of airships, including at least:

(1) hours of cross-country flight training in an airship with a cross-country flight totalling not less than 45 km (25 nm);

(2) Five take-offs and five landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern at an aerodrome;

(3) hours of instrument time; and

(4) hours as pilot assuming the duties of the pic under the supervision of the pic.

(b) FLIGHT INSTRUCTION. The applicant for a PPL(AS) shall have received dual instruction from an authorised instructor in at least the following areas:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;

(3) Ground reference manoeuvres;

(4) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(5) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures, and signals used;

(6) Control of the airship by external visual reference;

(7) Take-offs, landings, and go-arounds;

(8) Maximum performance (obstacle clearance) take-offs;

(9) Flight by reference solely to instruments, including the completion of a level 180 degree turn;

(10) Navigation, cross-country flying using visual reference, dead reckoning, and radio navigation aids;

(11) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and

(12) Radiotelephony procedures and phraseology.

(c) The requirements for the skill test for the PPL(AS) are included in IS 2.3.5.5 for PPL(AS).

Note: The instrument experience specified in 2.3.5.5(b)(8) and the night flying dual instruction in 2.3.5.1(g) do not entitle the holder of a private pilot licence to airship under IFR.

2.3.5.6 RESERVED.

2.3.5.7 RESERVED.

2.3.6 COMMERCIAL PILOT LICENCE

2.3.6.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a CPL shall be at least 18 years of age.

(b) MEDICAL FITNESS. The applicant for a CPL shall hold a current Class 1 medical certificate issued under Part 2.

(c) KNOWLEDGE AREAS. The applicant for a CPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a CPL and appropriate to the category of aircraft to be included on the licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the holder of a CPL; rules of the air; appropriate ATS practices and procedures.

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) Principles of operation and functioning of powerplants, systems, and instruments;

(ii) Operating limitations of the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;

(iii) Use and serviceability checks of equipment and systems of appropriate aircraft;

(iv) Maintenance procedures for airframes, systems, and powerplants of appropriate aircraft;

(v) For helicopters and powered-lifts, transmission (power-trains) where applicable;

(vi) For airships, physical properties and practical application of gases;

(3) FLIGHT PERFORMANCE, PLANNING AND LOADING.

(i) Effects of loading and mass distribution on aircraft handling, flight characteristics, and performance; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to commercial operations under VFR; preparation and filing of ATS flight plans; appropriate ATS procedures;

(iv) In the case of airships, helicopter, and powered-lift, effects of external loading on handling;

(4) HUMAN PERFORMANCE

(i) Human performance relevant to the appropriate aircraft type;

(ii) Principles of threat and error management;

(5) METEOROLOGY.

(i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect upon aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

(iii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(6) NAVIGATION.

(i) Air navigation, including the use of aeronautical charts, instruments, and navigation aids;

(ii) An understanding of the principles and characteristics of appropriate navigation

systems;

(iii) Operation of airborne equipment;

(iv) In the case of airships:

(A) Use, limitation, and serviceability of avionics and instruments necessary for control and navigation;

(B) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight, identification of radio navigation aids;

(C) Principles and characteristics of self-contained and external referenced navigation systems; operation of airborne equipment;

(7) OPERATIONAL PROCEDURES.

(i) Application of threat and error management to operational performance;

(ii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iii) Altimeter setting procedures;

(iv) Appropriate precautionary and emergency procedures;

(v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods;

(vi) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

(vii) In the case of helicopters, and, if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight under VMC;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate category of aircraft;

(9) RADIOTELEPHONY.

(i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure; and

(ii) As further specified in the applicable IS 2.3.6.

(d) KNOWLEDGE TESTING. The applicant for a CPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test on the knowledge subjects listed in the applicable CAA knowledge test guide.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for a CPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for a CPL shall have:

(1) Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and

(2) Demonstrated by passing a skill test the ability to perform as PIC of an aeroplane the areas of operation described in the applicable IS 2.3.6 with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to:

(i) Recognize and manage threats and errors;

(ii) Operate the aeroplane within its limitations;

(iii) Complete all manoeuvres with smoothness and accuracy;

(iv) Exercise good judgement and airmanship;

(v) Apply aeronautical knowledge; and

(vi) Maintain control of the aeroplane at all times in a manner such that the successful

outcome of a procedure or manoeuvre is never seriously in doubt.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of a CPL shall be:

(1) To exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;

(2) To act as PIC of an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;

(3) To act as PIC in commercial air transportation of an aircraft within the appropriate aircraft category and certificated for single-pilot operation;

(4) To act as CP of an aircraft within the appropriate aircraft category required to be operated with a CP; and

(5) For the airship category, to pilot an airship under IFR.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. A CPL that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the CPL has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the commercial pilot skill test.

2.3.6.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(A) shall have completed not less than 200 hours of flight time, or 150 hours if completed during a CAA-approved training course provided by an ATO under Part 3 of these regulations, as a pilot of aeroplanes, of which 20 hours may have been completed in an FSTD.

(2) The applicant for a CPL(A) shall have completed in aeroplanes not less than:

(i) 100 hours as PIC or, in the case of a course of approved training, 70 hours as PIC;

(ii) 20 hours of cross-country flight time as PIC including a cross-country flight totalling not less than 540 km (300 NM), in the course of which full-stop landings at two different aerodromes shall be made;

(iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and

(iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including five take-offs and five landings as PIC.

(3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:

(i) 10 hours as PIC in a category other than helicopters;

(ii) 30 hours as PIC holding a PPL(H) in helicopters; or

(iii) 100 hours as PIC holding a CPL(H) in helicopters.

(4) The applicant for a CPL(A) shall hold a PPL(A) issued under Part 2.

(b) FLIGHT INSTRUCTION.

(1) The applicant for a CPL(A) shall have received and logged not less than 25 hours of dual instruction from an authorised instructor. These 25 hours may include 5 hours completed in an FSTD.

(2) The instructor shall ensure that the applicant has operational experience in at least the

following areas to the level of performance required for the commercial pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the aeroplane by external visual reference;

(v) Flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;

(vi) Flight with asymmetrical power for multi-engine class or type ratings;

(vii) Flight at critically high airspeeds; recognition of and recovery from spiral dives;

(viii) Normal and crosswind take-offs and landings;

(ix) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;

(x) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(xi) Cross-country flying using visual reference, dead reckoning, and radio navigation aids; diversion procedures;

(xii) Abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;

(xiii) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

(xiv) Radiotelephony procedures and phraseology; and

(xv) Upset prevention and recovery training in actual flight.

(3) If the privileges of the CPL(A) are to be exercised at night, the applicant shall have received 4 hours of dual instruction in aeroplanes in night flying, including take-offs, landings, and 1 hour of navigation.

(c) SKILL TEST. The requirements for the skill test for the CPL(A) category are included in IS 2.3.6.2 for CPL(A).

Note 1: The instrument experience specified in 2.3.6.2(a)(2)(iii) and 2.3.6.2(b)(x) and the night flying experience and dual instruction specified in 2.3.6.2(a)(2)(iv) and 2.3.6.1(g) do not entitle the holder of a commercial pilot licence to pilot aeroplanes under IFR.

Note 2: Training can be performed by an individually authorised flight instructor, by an authorised flight instructor in a flying club, or in an Approved Training Organisation.

2.3.6.3 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – HELICOPTER CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(H) shall have completed not less than 150 hours of flight time, or 100 hours if completed during an integrated course of approved training provided by an ATO under Part 3 of these regulations, as a pilot of helicopters, of which 10 hours may have been completed in an FSTD.

(2) The applicant for a CPL(H) shall have completed in helicopters not less than:

(i) 35 hours as PIC;

(ii) 10 hours of cross-country flight time as PIC including a cross-country flight, in the course of which full-stop landings at two different aerodromes shall be made;

(iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and

(iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including five take-offs and five landings as PIC.

(3) The holder of a pilot licence in another category may be credited towards the 150 hours of flight time as follows:

(i) 20 hours as PIC holding a PPL(A) in aeroplanes; or

(ii) 50 hours as PIC holding a CPL(A) in aeroplanes.

(4) The applicant for a CPL(H) shall hold a PPL(H) under Part 2.

(b) FLIGHT INSTRUCTION.

(1) The applicant for a CPL(H) shall have received and logged not less than 30 hours of dual instruction in helicopters from an authorised instructor on the subjects listed in IS 2.3.6.3 for CPL(H).

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) Recognise and manage threats and errors;

(ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;

(iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) Control of the helicopter by external visual reference;

(v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind, and sloping ground; steep approaches;

(vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(viii) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;

(ix) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(x) Cross-country flying using visual reference, dead reckoning, and radio navigation aids; diversion procedures;

(xi) Abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing;

(xii) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

(xiii) Radiotelephony procedures and phraseology; and

(xiv) As further specified in the IS 2.3.6.3 for CPL(H).

(3) If the privileges of the licence are to be exercised at night, the applicant shall have received 4 hours of dual instruction in helicopters in night flying, including take-offs, landings, and 1 hour of navigation.

(c) SKILL TEST. The requirements for the skill test for the CPL(H) category are included in the IS 2.3.6.3 for CPL(H).

Note: The instrument experience specified in 2.3.6.2(a)(2)(iii) and 2.3.6.3(b)(ix) and the night flying experience and dual instruction specified in 2.3.6.2(a)(2)(iv) and 2.3.6.3 do not entitle the holder of a commercial pilot licence to pilot helicopters under IFR.

Note: Training can be performed by an individually authorised flight instructor, by an authorised flight instructor in a flying club, or in an Approved Training Organisation.

2.3.6.4 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – POWERED-LIFT CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(PL) shall have completed not less than 200 hours of flight time, or 150 hours if completed during a course of approved training provided for in an ATO under Part 3 of these regulations, as a pilot of aircraft. The Authority may determine whether experience as a pilot under instruction in an FSTD is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.

(2) The applicant for a CPL(PL) shall have completed in a powered-lift aircraft not less than:

(i) 50 hours as PIC;

(ii) 10 hours of cross-country flying as PIC including a cross-country flight totalling not less than 540 km (300 NM), in the course of which full-stop landings at two different aerodromes shall be made;

(iii) 10 hours of instrument instruction of which not more than 5 hours may be instrument ground time; and

(iv) If the privileges are to be exercised at night, 5 hours of night flight including five take-offs and landings as PIC.

(3) When the applicant for a CPL(PL) has flight time as a pilot of aircraft in other categories, the Authority may determine whether such experience is acceptable and, if so, the extent to which the flight time requirements in paragraph 2.3.6.4(a) of this subsection may be reduced.

(b) FLIGHT INSTRUCTION. The applicant for a CPL(PL) shall have received dual instruction in powered-lift from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;

(3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(4) Control of the powered-lift by external visual reference;

(5) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(6) Ground manoeuvring and run-ups; hover and rolling take-offs and climbout; hover and rolling approach and landings – normal, out of wind, and sloping ground; steep approaches;

(7) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(8) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;

(9) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(10) Cross-country flying using visual reference, dead reckoning, and, where available, radio navigation aids, including a flight of at least 1 hour;

(11) Emergency operations, including simulated powered-lift equipment malfunctions; power of reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable; and

(12) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures; and

(13) Radiotelephony procedures and phraseology.

(c) SKILL TEST. The requirements for the skill test for the CPL(PL) category are included in the IS 2.3.6.4 for CPL(PL).

Note: The instrument experience specified in 2.3.6.4(a)(2)(iii) and 2.3.6.4(b)(9) and the night flying experience and dual instruction specified in 2.3.6.4(a)(2)(iv) and 2.3.6.1(g) do not entitle the holder of a commercial pilot licence to pilot powered-lifts under IFR.

2.3.6.5 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE CPL – AIRSHIP CATEGORY

(a) EXPERIENCE.

(1) The applicant for a CPL(AS) shall have completed not less than 200 hours of flight time as a pilot.

(2) The applicant for a CPL(AS) shall have completed not less than:

(i) 50 hours as a pilot in airships;

(ii) 30 hours as PIC or PIC under supervision in airships, to include not less than:

(A) 10 hours of cross-country flight time; and

(B) 10 hours of night flight;

(iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and

(iv) 20 hours of flight training in airships on the areas of operation listed in paragraph 2.3.6.5(b) of this subsection.

(b) FLIGHT INSTRUCTION. The applicant for a CPL(AS) shall have received dual instruction in airships from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognise and manage threats and errors;

(2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;

(3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures, and signals used;

(5) Control of the airship by external visual reference;

(6) Recognition of leaks;

(7) Normal take-offs and landings;

(8) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;

(9) Flight under IFR;

(10) Cross-country flying using visual reference, dead reckoning, and, where applicable, radio navigation aids;

(11) Emergency operations, including simulated airship equipment malfunctions;

(12) Operations to, from, and transiting controlled aerodromes, compliance with ATS procedures;

and

(13) Radiotelephony procedures and phraseology.

(c) SKILL TEST. The requirements for the skill test for CPL(AS) are included in IS 2.3.6.5 for CPL(AS).

2.3.6.6 RESERVED.

2.3.6.7 RESERVED.

2.3.7 MULTI-CREW PILOT LICENCE – AEROPLANE

Note: The holder of an MPL is authorised by 2.3.7.1 of Part 2 to act as CP of an aeroplane required to be operated with a CP. Such holder will be eligible to obtain an ATPL appropriate to the aeroplane category, after fulfilling the requirements for that licence, to be restricted to multi-crew operations unless the requirements of 2.3.7.1(g)(1)(i), 2.3.7.1(g)(2), and 2.3.7.1(g)(3), as appropriate, are met.

2.3.7.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an MPL(A) shall be at least 18 years of age.

(b) MEDICAL FITNESS. The applicant for an MPL(A) shall hold a current Class 1 medical certificate issued under Part 2.

(c) COMPETENCIES. The applicant shall satisfactorily demonstrate the competencies identified in an adapted competency model to perform as CP of a turbine-powered air transport aeroplane certificated for operation with a minimum crew of at least two pilots. The adapted competency model shall be approved by the Authority, using as a basis the ICAO aeroplane pilot competency framework contained in ICAO Doc 9868, *Procedures for Air Navigation Services – Training (PANS-TRG)*.

Note 1: Knowledge, skills, and attitudes underpin these competencies as described in ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG)*. The knowledge and skills described in 2.3.7.1(d) and 2.3.7.1(f) of this part provide minimum requirements for the issuance of the MPL.*

Note 2: *The competencies of the approved adapted competency model provide individual and team countermeasures for the application of threat and error management. Guidance on threat and error management are contained in* ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG).

(d) KNOWLEDGE.

(1) The applicant for an MPL(A) shall:

(i) Meet the requirements specified in paragraph 2.3.8.1(c) of Part 2 for the ATPL(A); and

(ii) Meet the additional requirements underpinning the approved adapted competency model including fully integrated knowledge and skill requirements.

(2) The applicant for an MPL(A) knowledge test shall:

(i) Have received an endorsement for the knowledge test from an authorised instructor who:

(A) Conducted the training on the knowledge subjects; and

(B) Certifies that the person is prepared for the required knowledge test.

(ii) Pass the required written knowledge test on the knowledge areas specified in paragraph 2.3.8.1(c) of Part 2.

Note: Depending upon the particular MPL(A) curriculum, the knowledge test for the MPL(A) may need to be an integrated test in that it contains elements of PPL, CPL, IR, and/or ATPL knowledge.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. The applicant for an MPL(A) shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for an MPL(A) shall demonstrate the underpinning skills required for the competencies of the approved adapted competency model as pilot flying and pilot monitoring, to the level required to perform as a CP of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR.

(g) PRIVILEGES. The privileges of the holder of an MPL(A) shall be as follows:

(1) Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an MPL(A) shall be:

(i) To exercise all the privileges of the holder of a PPL in the aeroplane category provided the private pilot experience requirements of 2.3.5.2 of Part 2 have been met;

(ii) To exercise the privileges of the IR in a multi-crew operation; and

(iii) To act as CP of an aeroplane required to be operated with a CP.

(2) Before exercising the privileges of the IR in a single-pilot operation in aeroplanes, the licence holder shall have demonstrated an ability to act as PIC in a single-pilot operation exercised by reference solely to instruments and shall have met the IR skill requirement specified in 2.3.9.2 of Part 2 appropriate to the aeroplane category.

(3) Before exercising the privileges of a CPL in a single-pilot operation in aeroplanes, the licence holder shall have:

(i) Completed in aeroplanes 70 hours, either as PIC or made up of not less than 10 hours as PIC and the necessary additional flight time as PIC under supervision;

(ii) Completed 20 hours of cross-country flight time as PIC, or made up of not less than 10 hours as PIC and 10 hours as PIC under supervision, including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made; and

(iii) Met the requirements for the CPL specified in paragraphs 2.3.6.1(c), 2.3.6.1(f), and 2.3.6.2(a)(2) of Part 2 (with the exception of 2.3.6.2(a)(2)(i)) appropriate to the aeroplane category.

Note 1: When a Contracting State grants single-pilot operation privileges to the holder of an MPL(A), it can document the privileges through an endorsement of the MPL(A) or through the issuance of a CPL in the aeroplane category.

Note 2: Certain privileges of the licence are curtailed by licence holders when they reach their 65th birthday.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

(i) RENEWAL. An MPL(A) that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.

(j) RE-ISSUE. If the MPL(A) has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the MPL(A) skill test specified in IS 2.3.7.2 for MPL(A).

2.3.7.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE MULTI-CREW PILOT LICENCE – AEROPLANE CATEGORY

(a) EXPERIENCE. The applicant for an MPL(A) shall have completed an approved training course not less than 240 hours which includes actual and simulated flight as pilot flying and pilot monitoring.

(1) The flight experience in actual flight shall include at least the experience requirements of 2.3.8.2(a) of Part 2 for the ATPL(A), upset prevention and recovery training, night flying, and flight by reference solely to instruments.

(2) In addition to meeting the provisions of paragraph 2.3.7.2(a)(1) of this subsection, the applicant shall have gained, in a turbine-powered aeroplane certificated for operations with a minimum crew of at least two pilots, or in an FSTD approved for that purpose by the Authority, the experience necessary to achieve the final competency standard of the approved adapted competency model, as defined in the IS 2.3.7.2 for MPL(A).

(b) FLIGHT INSTRUCTION. The applicant shall have:

(1) Completed a course of approved training covering the experience requirements in 2.3.7.1(d)(1) of Part 2; and

(2) Received dual flight instruction in order to achieve the final competency standard in all the competencies of the approved adapted competency model, for the issue of the MPL.

Note: The competencies of the approved adapted competency model provide individual and team countermeasures for the application of threat and error management. Guidance on threat and error management is contained in ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG).

(c) SKILL TEST. The requirements for the skill test for MPL(A) are included in the IS 2.3.7.2 for MPL(A).

2.3.8 AIRLINE TRANSPORT PILOT LICENCE

2.3.8.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an ATPL shall be at least 21 years of age.

(b) MEDICAL FITNESS. The applicant for an ATPL shall hold a current Class 1 medical certificate issued under Part 2.

(c) KNOWLEDGE. The applicant for an ATPL shall have received and logged ground training from an authorised instructor on the following subjects appropriate to the privileges of the ATPL and to the category of aircraft intended to be included on the licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the holder of an ATPL; rules of the air; appropriate ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) General characteristics and limitations of electrical, hydraulic, pressurisation, and other aircraft systems; flight control systems, including autopilot and stability augmentation;

(ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;

(iii) Operating procedures and limitations of appropriate aircraft; effects of atmospheric conditions on aircraft performance in accordance to the relevant operational information from the flight manual;

(iv) Use and serviceability checks of equipment and systems of the relevant category of aircraft;

(v) Flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments and electronic display units;

(vi) Maintenance procedures for airframes, systems, and powerplants of appropriate aircraft;

(vii) For helicopter and powered-lift, transmission (power-trains), where applicable;

(3) FLIGHT PERFORMANCE, PLANNING AND LOADING.

(i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(ii) Use and practical application of take-off, landing, and other performance data, including procedures for cruise control;

(iii) Pre-flight and en route operational flight planning; preparation and filing of ATS flight plans; appropriate ATS procedures; altimeter setting procedures;

(iv) In the case of helicopter or powered-lift, effects of external loading on handling;

(4) HUMAN PERFORMANCE.

(i) Human performance, including principles of threat and error management;

(5) METEOROLOGY.

(i) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts; and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

(iii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(iv) In the case of aeroplane and powered-lift, practical high-altitude meteorology, including interpretation and use of weather reports, charts, and forecasts; jet streams;

(6) NAVIGATION.

(i) Air navigation, including the use of aeronautical charts, radio navigation aids, and area navigation systems; specific navigation requirements for long-range flights;

(ii) Use, limitation, and serviceability of avionics and instruments necessary for the control and navigation of aircraft;

(iii) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight; identification of radio navigation aids;

(iv) Principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

(7) OPERATIONAL PROCEDURES.

(i) Application of threat and error management to operational performance;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iii) Precautionary and emergency procedures; safety practices;

(iv) Operational procedures for carriage of freight and dangerous goods;

(v) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

(vi) In the case of helicopter and, if applicable, powered-lift, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures associated with flight under VMC;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate aircraft category; and

(9) RADIOTELEPHONY.

(i) Radiotelephony procedures and phraseology; action to be taken in case of communication failure.

(10) In addition to the above subjects, the applicant for airline transport pilot licence applicable to the aeroplane or powered-lift category shall have met the knowledge requirements for the instrument rating as specified in 2.3.9.1(c) of Part 2.

(d) KNOWLEDGE TESTING. The applicant for an ATPL shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required written knowledge test on the knowledge subjects listed in paragraph 2.3.8.1(c)(2) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. The applicant for an ATPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) SKILL. The applicant for an ATPL shall have:

(1) Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and

(2) Demonstrated by passing a skill test the ability to perform, as PIC of an aircraft of the appropriate category required to be operated with a CP, the following procedures and manoeuvres:

(i) Pre-flight procedures, including the preparation of the operational flight plan and filing of the ATS flight plan;

(ii) Normal flight procedures and manoeuvres during all phases of flight;

(iii) Abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems, and airframe;

(iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation, and use of checklists;

(v) In the case of the aeroplane and powered-lift, procedures and manoeuvres for instrument flight as described in 2.3.8 of Part 2, including simulated engine failure; and

(vi) In the case of aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in this paragraph as PIC in a multi-engine aircraft.

(3) Demonstrated, by passing a skill test, the ability to perform the areas of operation described in the applicable IS 2.3.8.2, IS 2.3.8.3 or IS 2.3.8.4 with a degree of competency appropriate to the privileges granted to the holder of an ATPL, and to:

(i) Operate the aeroplane within its limitations;

(ii) Recognise and manage threats and errors;

(iii) Smoothly and accurately, manually control the aircraft within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;

(iv) Operate the aircraft in the mode of automation appropriate to the phase of flight and

to maintain awareness of the active mode of automation;

(v) Perform, in an accurate manner, normal, abnormal, and emergency procedures in all phases of flight;

(vi) Exercise good judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and

(vii) Communicate effectively with the other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to SOPs and use of checklists.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an ATPL shall be:

(1) To exercise all the privileges of the holder of a PPL and CPL in an aircraft within the appropriate aircraft category and class, if applicable;

(2) In the case of the aeroplane and powered-lift categories, to exercise the privileges of the holder of an IR; and

(3) To act as PIC and CP, in commercial air transportation, of an aircraft within the appropriate category and class, if applicable.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years. For renewal or reissue, see 2.2.1.7 of Part 2.

(i) RENEWAL. An ATPL that has not expired may be renewed for an additional 5 years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience and proficiency are current.

(j) RE-ISSUE. If the ATPL has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass the airline transport pilot skill test.

2.3.8.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE ATPL – AEROPLANE CATEGORY

(a) EXPERIENCE.

(1) The applicant for an ATPL(A) shall have completed not less than 1500 hours of flight time as a pilot of aeroplanes, of which a maximum of 100 hours may have been completed in an FSTD. The applicant shall have completed in aeroplanes not less than:

(i) 500 hours, either as PIC or made up by not less than 100 hours as PIC and the necessary additional flight time as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and

(iv) 100 hours of night flight as PIC or CP.

(2) Holders of a CPL(H) will be credited with 50 per cent of their helicopter flight time as PIC towards the flight time required in paragraph 2.3.8.2(a)(1).

(3) The applicant for an ATPL(A) shall be the holder of a CPL(A) with instrument and multi-engine rating issued under Part 2.

(b) FLIGHT INSTRUCTION. The applicant for an ATPL(A) shall have received the dual flight instruction required for the issue of the CPL and the IR.

(c) SKILL TEST. The requirements for the skill test for ATPL(A) are included in IS 2.3.8.2 for ATPL(A).

Note: The aeroplane upset prevention and recovery training may be integrated in the type rating programme or may be conducted immediately after, as an additional module

2.3.8.3 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE ATPL – HELICOPTER CATEGORY

(a) EXPERIENCE.

(1) The applicant for an ATPL(H) shall have completed not less than 1000 hours of flight time as a pilot of helicopters, of which a maximum of 100 hours may have been completed in an FSTD. The applicant shall have completed in helicopters not less than:

(i) 250 hours, either as PIC or made up by not less than 100 hours as PIC and the necessary additional flight time as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;

(iii) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time; and

(iv) 50 hours of night flight as PIC or CP.

(2) Holders of a CPL(A) will be credited with 50 per cent of their aeroplane flight time as PIC towards the flight time required in 2.3.8.3(a)(1) of this subsection.

(3) The applicant for an ATPL(H) shall be the holder of a CPL(H) issued under Part 2.

(b) FLIGHT INSTRUCTION. The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.

(c) SKILL TEST. The requirements for the skill test for ATPL(H) are included in the IS 2.3.8.3 for ATPL(H).

2.3.8.4 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE ATPL – POWERED-LIFT CATEGORY

(a) EXPERIENCE.

(1) The applicant for an ATPL(PL) shall have completed not less than 1500 hours of flight time as a pilot of powered-lift. The Authority may determine whether experience completed under instruction in an FSTD is acceptable as part of the total time of 1500 hours. The applicant shall have completed in powered-lift not less than:

(i) 250 hours, either as PIC or made up by not less than 100 hours as PIC and the necessary additional flight time as CP performing, under the supervision of the PIC, the duties and functions of PIC, provided that the method of supervision employed is acceptable to the Authority.

(ii) 100 hours of cross-country flight time, of which not less than 50 hours shall be as PIC or as CP performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority.

(iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time.

(2) 25 hours of night flight as PIC or CP.

(3) The Authority may determine if pilot flight time in other aircraft categories may be credited towards meeting the 1500-hour flight time in paragraph 2.3.7.4(a)(1) of this subsection.

(4) The applicant for an ATPL(PL) shall be the holder of a CPL(PL) issued under Part 2.

(b) FLIGHT INSTRUCTION. The applicant for an ATPL(PL) shall have received the dual flight instruction required for the issue of the CPL(PL) and for the issue of the IR.

(c) SKILL TEST. The requirements for the skill test for ATPL(PL) are included in the IS 2.3.8.4 for ATPL(PL).

2.3.9 INSTRUMENT RATING

2.3.9.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an IR shall be at least 17 years of age.

(b) MEDICAL FITNESS. The applicant for an IR shall hold either a Class 1 or 2 medical certificate issued under Part 2, as appropriate for the level of licence held. The applicant for an IR holding a PPL shall have established the applicant's hearing acuity on the basis of compliance with the hearing requirements for the issue of a Class 1 medical certificate.

(c) KNOWLEDGE. The applicant for an IR shall receive and log ground training from an authorised instructor on the following subjects:

(1) AIR LAW.

(i) Rules and regulations relevant to flight under IFR; related ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Use, limitation, and serviceability of avionics, electronic devices, and instruments necessary for the control and navigation of aeroplanes under IFR and in instrument meteorological conditions; use and limitations of automation;

(ii) Compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

(3) FLIGHT PERFORMANCE AND PLANNING FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Pre-flight preparations and checks appropriate to flight under IFR;

(ii) Operational flight planning; preparation and filing of ATS flight plans under IFR; altimeter setting procedures;

(4) HUMAN PERFORMANCE FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Human performance relevant to instrument flight in aircraft;

(ii) Principles of threat and error management;

(5) METEOROLOGY FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Application of aeronautical meteorology; interpretation and use of reports, charts, and forecasts; codes and abbreviations; use of, and procedures for obtaining,

meteorological information; altimetry;

(ii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(iii) In the case of helicopter and powered-lift, effects of rotor icing;

(6) NAVIGATION FOR THE AIRCRAFT CATEGORY BEING SOUGHT.

(i) Practical air navigation using navigation systems;

(ii) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight; identification of navigation sources;

(7) OPERATIONAL PROCEDURES FOR THE AIRCRAFT BEING SOUGHT.

(i) Application of threat and error management to operational principles;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en route, descent, and approach;

(iii) Precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria; and

(8) RADIOTELEPHONY.

(i) Communication procedures and phraseology as applied to aircraft operations under IFR; action to be taken in case of communication failure.

(d) KNOWLEDGE TESTING. An applicant for an IR shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge subjects; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test on the knowledge subjects listed in paragraph 2.3.9.1(c) of this subsection.

(e) EXPERIENCE AND FLIGHT INSTRUCTION. An applicant for an IR shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in Part 2.

(f) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an IR shall be to pilot an aircraft of the appropriate category under IFR. Before exercising the privileges on multi-engine aircraft, the holder of the rating shall have complied with the requirements of paragraph (g)(3).

(g) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of an IR is 1 year.

(h) RENEWAL.

(1) For the renewal of a single-engine IR, the applicant shall, within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the IS 2.3.9.2 for the IR.

(2) For the renewal of a multi-engine IR, the applicant shall, within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.9.2 for the IR.

(3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(i) RE-ISSUE. If the IR has expired, the applicant shall:

(1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test on the subjects listed in IS 2.3.9.2 for the IR.

Note: The IR is included in the ATPL(A), ATPL(PL), MPL, and the CPL(AS). An Authority may combine the IR requirements with other licences

2.3.9.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE INSTRUMENT RATING

(a) EXPERIENCE

(1) The applicant for an IR shall hold a pilot licence with an aircraft category and, if applicable, a class rating for the IR sought.

(2) The applicant shall have completed not less than:

(i) 50 hours of cross-country flight time as PIC of aircraft in categories acceptable to the Authority, of which not less than 10 hours shall be in the aircraft category being sought; and

(ii) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where an FSTD is used, may be instrument ground time. The ground time shall be under the supervision of an authorised instructor.

(b) FLIGHT INSTRUCTION.

(1) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in paragraph 2.3.9.2(a)(2)(ii) of this subsection while receiving and logging dual instruction in aircraft from an authorised FI.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an IR:

(i) Pre-flight procedures, including the use of the flight manual or equivalent document and appropriate ATS documents in the preparation of an IFR flight plan;

(ii) Pre-flight inspection, use of checklists, taxiing, and pre-take-off checks;

(iii) Procedures and manoeuvres for IFR operation under normal, abnormal, and emergency conditions covering at least:

(A) Transition to instrument flight on take-off;

(B) Standard instrument departures and arrivals;

(C) En route IFR procedures and navigation;

(D) Holding procedures;

(E) Instrument approaches to specified minima;

(F) Missed approach procedures; and

(G) Landings from instrument approaches;

(iv) In-flight manoeuvres and particular flight characteristics.

(3) If the privileges of the IR are to be exercised on multi-engine aircraft, the applicant shall have received dual instrument flight instruction in such an aircraft from an authorised FI. The instructor shall ensure that the applicant has operational experience in the operation of the aircraft solely by reference to instruments with one engine inoperative or simulated inoperative.

(4) SKILL TEST. The applicant for an IR shall have: Received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; Demonstrated, by passing a skill test, the ability to perform the areas of operation described in the IS 2.3.9.2 for IR with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:

(i) Recognise and manage threats and errors;

(ii) Operate the aircraft within its limitations;

(iii) Complete all manoeuvres with smoothness and accuracy;

(iv) Exercise good judgement and airmanship;

(v) Apply aeronautical knowledge;

(vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured;

(vii) Understand and apply crew coordination and incapacitation procedures; and

(viii) Communicate effectively with the other flight crew members.

(5) Demonstrated, by passing a skill test, the ability to operate multi-engine aircraft solely by reference to instruments with one engine inoperative, or simulated inoperative, described in the IS 2.3.9.2 for IR, if the privileges of the IR are to be exercised on such aircraft.

(c) The skill test and proficiency check for the IR is included in IS 2.3.9.2 for the IR.

2.3.10 INSTRUCTORS FOR PILOT LICENSING

2.3.10.1 GENERAL REQUIREMENTS

(a) Applicability.

(1) This section prescribes the requirements for the issuance of instructor licences, ratings, or authorisations; the conditions under which those ratings and authorisations are necessary; and the privileges and limitations on those ratings and authorisations.

(2) All instructors shall read, speak, write, and understand the language of Curaçao and English, if required.

(3) The following instructor licences, ratings, and authorisations are issued under Part 2:

(i) FI licence;

(ii) GI licence, with basic, advanced, and instrument ratings; and

(iii) Instructor authorisation for flight simulation training.

2.3.10.2 FLIGHT INSTRUCTOR LICENCE REQUIREMENTS, SKILL TEST, AND PROFICIENCY CHECK

(a) AGE. The applicant for an FI licence shall be of the appropriate age for the underlying licence to be held.

(b) MEDICAL FITNESS. The applicant for an FI licence shall have a Class 1 medical certificate.

(c) KNOWLEDGE. The applicant for an FI licence shall:

(1) Have received and logged training from an authorised instructor;

(2) Pass an FI knowledge test on:

(i) The aeronautical knowledge areas for a student pilot authorisation; private, commercial, and airline transport pilot licences applicable to the aircraft category for

which FI privileges are sought; and

(ii) The aeronautical knowledge areas for the IR applicable to the category for which instrument FI privileges are sought.

(iii) Meet the requirements for fundamentals of knowledge instruction as listed in 2.2.6 of Part 2.

(d) EXPERIENCE. The applicant for an FI licence shall hold a licence with the aircraft category and, if applicable, class and/or type rating appropriate to the FI rating sought, as follows:

(1) For an instructor licence in the aeroplane category – hold either a CPL(A) or an ATPL(A) with IR and appropriate class and/or type ratings;

(2) For an instructor licence in the powered-lift category – hold either a CPL(PL) or an ATPL(PL) with IR and, as applicable, class or type rating;

(3) For an instructor licence in the helicopter category – hold either a CPL(H) or an ATPL(H) and any applicable class or type rating;

(4) For an instructor licence in the airship category – hold a CPL(AS) and any applicable ratings;

(5) For an instructor IR licence – hold an IR in the appropriate category of aircraft.

(e) FLIGHT INSTRUCTION. The applicant for an FI licence shall have:

(1) Received flight instruction from an authorised instructor in flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(2) Practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

(f) SKILL. The applicant for an FI licence shall:

(1) Receive a logbook endorsement from an authorised instructor to indicate that the applicant is proficient on the areas of operation listed in paragraph 2.3.10.2(f)(2) of this subsection, appropriate to the FI rating sought;

(2) Pass the required skill test that is appropriate to the FI licence sought on the areas of operation described in the applicable IS 2.3.10.2 in an:

(i) Aircraft that is representative of the category of aircraft and, if applicable, class and/or type for the aircraft rating sought; or

(ii) Approved FSTD that is representative of the category and, if applicable, class and/or type of aircraft for the licence and rating sought, and used in accordance with an approved course at an ATO certified under Part 3 of these regulations

(g) PRIVILEGES, LIMITATIONS AND QUALIFICATIONS.

(1) An FI is authorised within the limitations of that person's FI licence, and pilot licence and ratings, to give training and endorsements that are required for and relate to:

(i) A student pilot authorisation;

(ii) A pilot licence;

(iii) An FI licence;

(iv) A GI licence;

(v) An aircraft category rating;

(vi) An aircraft class rating;

(vii) An IR;

(viii) A proficiency check or recency of experience requirement;

(ix) A knowledge test; and

(x) A skill test.

(h) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of instructor licence is 2 years.

(i) RENEWAL. An FI licence that has not expired may be renewed for an additional 24 calendar months if the holder:

(1) Passes a skill test for:

(i) Renewal of the FI licence; or

(ii) An additional FI rating; or

(2) Presents to an Authority inspector:

(i) A record of training students showing that, during the preceding 24 calendar months, the FI has endorsed at least five students for a skill test for a licence or rating, and at least eighty percent (80%) of those students passed that test on the first attempt;

(ii) A record showing that, within the preceding 24 calendar months, the FI has served as a company check pilot, Chief Flight Instructor, company CP, or FI in an operation certificated under Part 9 of these regulations, or in a position involving the regular evaluation of pilots; or

(iii) A graduation certificate showing that the pilot has successfully completed an approved FI refresher course consisting of ground training or flight training, or both, within the 90 days preceding the expiration month of his or her FI licence.

(3) If an FI accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her FI licence:

(i) The Authority will consider that the FI accomplished the renewal requirement in the month due; and

(ii) The Authority will renew the current FI rating for an additional 24 calendar months from its expiration date.

(4) An FI may accomplish the skill test required by this subsection in an approved course conducted by an ATO certificated under Part 3 of these regulations.

(j) RE-ISSUE. If the FI licence has expired, the applicant shall

(1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the prescribed skill test.

(k) Additional FI licences. An applicant for an additional FI licence shall meet the requirements listed in 2.3.10.2 of this subsection that apply to the FI rating sought.

(l) FI Records. An FI shall:

(1) Sign the logbook of each person to whom that instructor has given flight training or ground training;

(2) Maintain a record in a logbook or separate document that contains the following:

(i) The name of each person whose logbook or student pilot licence that instructor has endorsed for solo flight privileges, and the date of the endorsement; and

(ii) The name of each person that instructor has endorsed for a knowledge test or skill test, and a record of the kind of test, the date, and the results; and

(3) Retain the records required by this subsection for at least 3 years.

(m) FI limitations and qualifications. The holder of an FI licence shall observe the following limitations and qualifications:

(1) Hours of training. In any 24-consecutive-hour period, an FI may not conduct more than 8 hours of flight training.

(2) Required licence and ratings. An FI may not conduct flight training in any aircraft for which the FI does not hold a pilot licence and FI licence with the applicable category and, if applicable, class or type rating.

(3) For instrument flight training or for training for a type rating not limited to VFR, an appropriate IR on his or her FI rating and pilot licence.

(4) Limitations on endorsements. An FI may not endorse the following:

(i) A student pilot's licence or logbook for solo flight privileges, unless that FI has:

(A) Given that student the flight training required for solo flight privileges required by this subsection;

(B) Determined that the student is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the student's logbook that the instructor considers necessary for the safety of the flight;

(C) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and

(D) Endorsed the student pilot's logbook for the specific make and model of aircraft to be flown.

(ii) A student pilot's licence and logbook for a solo cross-country flight, unless that FI has determined that:

(A) The student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and

(B) The student has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown.

(iii) A student pilot's licence and logbook for solo flight in a Class B airspace area or at an aerodrome within Class B airspace unless that FI has:

(A) Given that student ground and flight training in that Class B airspace or at that aerodrome; and

(B) Determined that the student is proficient to operate the aircraft safely.

Note: Class B airspace as defined in ICAO Annex 11: 2.6.1 is IFR and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other.

(iv) The logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements of 8.4.1.10 of these regulations; or

(v) The logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of 8.4.1.11 of these regulations.

(5) Training in a multi-engine aeroplane or a helicopter. An FI may not give training required for the issuance of a licence or rating in a multi-engine aeroplane or a helicopter unless that FI has at least 5 flight hours of PIC time in the specific make and model of multi-engine aeroplane or helicopter, as appropriate.

(6) Qualifications of the FI for training first-time FI applicants. No FI may provide instruction to another pilot who has never held an FI licence unless that FI:

(A) Holds a current ground or FI licence with the appropriate rating, has held that licence for at least 24 months, and has given at least 40 hours of ground training; or

(B) Holds a current ground or FI licence with the appropriate rating and has given at least 100 hours of ground training in a course which has been approved by the Authority; and

(C) Meets the eligibility requirements prescribed in 2.2.6 of Part 2;

(D) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as an FI; and

(7) Prohibition against self-endorsements. An FI may not make any self-endorsement for a licence, rating, flight review, authorisation, operating privilege, skill test, or knowledge test that is required by Part 2.

(8) CAT II and CAT III instruction. An FI may not give training in CAT II or CAT III operations unless the FI has been trained and tested in CAT II or CAT III operations, as applicable.

(n) The skill test and proficiency check for FI ratings in the categories of aeroplane, helicopter, powered-lift, airship, balloon, and glider, as well as IR (aeroplane, helicopter, and powered-lift) and additional type ratings, are included in the applicable IS 2.3.10.2

2.3.10.3 INSTRUCTOR AUTHORISATION FOR FLIGHT SIMULATION TRAINING

(a) Current and former holders of professional pilot licences having instructional experience can apply for an authorisation to provide flight instruction in an FSTD, provided the applicant has at least 1 year experience as an instructor in FSTDs.

(1) SKILL. The applicant shall have demonstrated in a skill test, in the category and class or type of aircraft for which instructor authorisation privileges are sought, the ability to instruct in those areas in which ground instruction is to be given.

(2) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an authorisation are to carry out instruction in an FSTD for the issue of a class or type rating in the appropriate category of aircraft.

(3) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of an instructor authorisation for flight simulation training is 1 year.

(4) RENEWAL. Renewal of the authorisation requires the successful completion of a proficiency check.

(5) REISSUE. If the authorisation has expired, the applicant shall complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorisation privileges are sought.

2.3.10.4 GROUND INSTRUCTOR LICENCE

(a) AGE. The applicant for a GI licence shall be at least 18 years of age.

(b) KNOWLEDGE. The applicant for a GI licence shall:

(1) Receive and log training from an authorised instructor and pass a knowledge test on the aeronautical knowledge areas appropriate to the aircraft category for the licence and ratings below, as applicable:

(i) For a Basic Ground Instructor (BGI) rating, the knowledge for a student and PPL as listed in Part 2;

(ii) For an Advanced Ground Instructor (AGI) rating, the student, private, commercial, and airline transport pilot knowledge areas as listed in Part 2; and

(iii) For an Instrument Ground Instructor (IGI) rating, the knowledge for the IR as listed in Part 2.

(2) Meet the requirements for fundamentals of instructing as listed in 2.2.6 of Part 2.

(c) PRIVILEGES. The holder of a GI licence may exercise the privileges appropriate to the licence and rating held.

(1) A person who holds a GI licence with a basic rating is authorised to provide:

(i) Ground training in the aeronautical knowledge areas required for the issuance of a student pilot authorisation or PPL or associated ratings;

(ii) Ground training required for a private pilot flight review; and

(iii) A recommendation for a knowledge test required for the issuance of a PPL.

(2) A person who holds a GI licence with an advanced rating is authorised to provide:

(i) Ground training in the aeronautical knowledge areas required for the issuance of any licence or rating;

(ii) Ground training required for any flight review; and

(iii) A recommendation for a knowledge test required for the issuance of any licence.

(3) A person who holds an IGI rating is authorised to provide:

(i) Ground training in the aeronautical knowledge areas required for the issuance of an IR;

(ii) Ground training required for an instrument proficiency check; and

(iii) A recommendation for a knowledge test required for the issuance of an IR.

(4) A person who holds a GI licence is authorised, within the limitations of the licence and ratings on the GI licence, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in paragraphs 2.3.9.4(c)(1) through (3) of this subsection.

(d) VALIDITY. The validity period for a GI licence is 1 year.

(e) RENEWAL. The applicant for renewal of a GI licence shall provide to the Authority satisfactory evidence of at least 3 months of service as a GI within the past 12 months.

(f) RE-ISSUE. If the GI licence has expired, the applicant for reissuance shall complete refresher training acceptable to the Authority and shall receive an endorsement from a licensed ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in Part 2 for the licence and rating.

2.3.11 DESIGNATED PILOT EXAMINERS

2.3.11.1 REQUIREMENTS AND SKILL TEST FOR A DPE

(a) AGE. The applicant for a DPE shall be at least 21 years of age.

(b) MEDICAL. The applicant for a DPE shall have a Class 1 medical certificate.

(c) GENERAL ELIGIBILITY: The applicant for a DPE shall:

(1) Hold at least the licence and/or the class/type ratings, as applicable, for which examining authority is sought;

(2) Hold at least the FI ratings for which examining authority is sought or be serving in a comparable position as an air operator check pilot or comparable position in an ATO;

(3) Have a reputation for integrity and dependability in the industry and the community;

(4) Have a good record as a pilot and FI with regard to accidents, incidents, and violations; and

(5) Have pilot and instructor licence/ratings that have never been revoked for falsification or forgery.

(d) KNOWLEDGE. The applicant for a DPE shall pass a pre-designation knowledge test in the areas appropriate to the category of aircraft for which designation is sought.

(e) SKILL TEST. The applicant for a DPE shall pass a skill test conducted by an inspector of the Authority who holds a current and valid licence with the appropriate category and, if applicable, class and type ratings on the areas of operation contained in the IS 2.3.11.1 for the applicable designation.

(f) MAINTAINING CURRENCY. After designation, a DPE shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority; and

(2) Maintaining a current and valid:

(i) Pilot licence and, if applicable, class/type ratings appropriate to the designation;

(ii) FI licence and ratings applicable to the designation; and

(iii) Class 1 medical certificate.

(g) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the examiner's designation are to conduct skill tests and proficiency checks for a licence and rating(s) as listed on the DPE's certificate of designation and identification card.

(h) VALIDTY. Subject to compliance with the requirements specified in Part 2, the validity period of an examiner's designation is 3 years.

(i) RENEWAL.

(1) Renewal will be at the discretion of the Authority.

(2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in the IS 2.3.11.1 or the applicable designation.

(j) ADDITIONAL DESIGNATIONS. When the Authority deems it necessary for a DPE to receive additional designations, the DPE:

(1) Shall meet all the requirements in Part 2 for the designation;

(2) Need not take an additional knowledge test, provided the designation is within the same aircraft category.

(k) The requirements for the designation of a pilot examiner are included in the applicable IS 2.3.11.1.

2.3.11.2 EXPERIENCE REQUIREMENTS FOR PRIVATE PILOT EXAMINER

(a) Experience PPE. – Aeroplane Category. The examiner applicant shall have at least:

(1) A CPL(A), appropriate class rating(s), and an IR(A);

(2) A valid FI licence with an aeroplane category and appropriate class rating(s);

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 300 hours in the class of aeroplane for which designation is sought; and

(iii) 100 hours in aeroplanes at night.

(4) 500 hours as an FI in aeroplane, including at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought.

(b) Experience PPE – Helicopter Category. The examiner applicant shall have at least:

(1) A CPL(H) and appropriate class rating(s);

(2) A valid FI licence with a helicopter category and appropriate class rating(s);

(3) 1000 hours as PIC, including at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year; and

(ii) 250 hours in helicopters, as appropriate for the designation sought.

(4) 200 hours as a FI in helicopters, as appropriate for the designation sought.

(c) Experience PPE – Powered-Lift Category. The examiner applicant shall have at least:

(1) A CPL(PL) with an instrument powered-lift rating;

(2) A valid FI licence with a powered-lift category;

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in powered-lift, of which 300 hours were accrued within the past year; and

(ii) 100 hours in powered-lift at night.

(4) 500 hours as an FI in powered-lift.

(d) Experience PPE – Airship Category. The examiner applicant shall have at least:

(1) A CPL(AS) and any applicable class rating(s);

(2) A valid FI licence with an airship category and any applicable class rating(s);

(3) 1000 hours as PIC, including at least:

(i) 500 hours in airships, of which 200 hours were accrued within the past year; and

(ii) 50 hours in airships at night.

(4) 100 hours as an FI in airships.

2.3.11.3 EXPERIENCE REQUIREMENTS FOR COMMERCIAL AND INSTRUMENT RATING PILOT EXAMINER

(a) Experience CIRE – Aeroplane Category. The examiner applicant shall have at least:

(1) A CPL(A), appropriate class rating(s), and an IR(A);

(2) A valid FI certificate with an aeroplane category rating, the appropriate class rating(s), and an instrument – aeroplane rating;

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 500 hours in the class of aeroplane for which designation is sought;

(iii) 100 hours at night in aeroplanes;

(iv) 100 hours of instrument flight time in actual or simulated conditions; and

(v) For the authority to conduct skill tests in large or turbine-powered aeroplanes:

(A) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in aeroplanes, including at least:

(i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought; and

(ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes.

(b) Experience CIRE – Helicopter Category. The examiner applicant shall have at least:

(1) A CPL(H), appropriate class rating(s), and an instrument – helicopter rating;

(2) A valid FI certificate with a helicopter category rating, the appropriate class rating(s), and an instrument – helicopter rating.

(3) 2000 hours as PIC, including at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) 100 hours of instrument flight time in actual or simulated conditions;

(iii) For the authority to conduct skill tests in large or turbine-powered aeroplanes:

(A) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(B) 25 hours for each additional type of large helicopter for which designation is sought;

(4) 250 hours as an FI in helicopters, including at least:

(i) 100 hours of flight instruction given in the helicopters; and

(ii) 50 hours of instrument flight instruction in helicopters.

(c) Experience CIRE – Powered-Lift Category. The examiner applicant shall have at least:

(1) A CPL with a powered-lift category rating, any applicable class rating(s), and an instrument – powered-lift rating;

(2) A valid FI certificate with a powered-lift category rating, any applicable class rating(s) and an instrument – powered-lift rating;

(3) 2000 hours as PIC, including at least:

(i) 1000 hours in powered-lifts, of which 300 hours were accrued within the past year;

(ii) 100 hours at night in powered-lifts;

(iii) 100 hours of instrument flight time in actual or simulated conditions; and

(iv) For the authority to conduct skill tests in large or turbine-engine powered-lifts:

(A) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in powered-lifts, including at least:

(i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts.

2.3.11.4 EXPERIENCE REQUIREMENTS FOR COMMERCIAL PILOT EXAMINERS

(a) Experience CE – Helicopter Category. The examiner applicant shall have at least:

(1) A CPL(H);

(2) A valid FI certificate with a helicopter category rating;

(3) 2000 hours as PIC, including at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) For the authority to conduct skill tests in large helicopters:

(A) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(B) 25 hours for each additional type of large helicopter for which designation is sought;

(4) 250 hours as an FI in helicopters, including at least:

(i) 50 hours of instrument flight instruction in helicopters.

(b) Experience CE – Airship Category. The examiner applicant shall have at least:

(1) A CPL(AS) and any applicable class rating(s);

(2) A valid FI licence with an airship category and any applicable class rating(s);

(3) 1000 hours as PIC, including at least:

(i) 500 hours in airships, of which 200 hours were accrued within the past year; and

(ii) 50 hours in airships at night;

(4) 100 hours as an FI in airships.

2.3.11.5 EXPERIENCE REQUIREMENTS FOR AIRLINE TRANSPORT PILOT EXAMINERS

(a) Experience ATPE – Aeroplane Category. The examiner applicant shall have at least:

(1) An ATPL(A), appropriate class rating(s), and an instrument – aeroplane rating;

(2) A valid FI certificate with an aeroplane category rating, the appropriate class rating(s), and an instrument – aeroplane rating;

(3) 2000 hours as PIC, including at least:

(i) 1500 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 500 hours in the class of aeroplane for which designation is sought;

(iii) 100 hours at night in aeroplanes;

(iv) 200 hours in complex aeroplanes;

(v) 100 hours of instrument flight time in actual or simulated conditions;

(vi) For the authority to conduct skill tests in large or turbine-powered aeroplanes;

(A) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in aeroplanes, including at least:

(i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought;

(ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes; and

(iii) 150 hours flight instruction given for a CPL(A), an ATPL(A), or an IR(A).

(b) Experience ATPE – Helicopter Category. The examiner applicant shall have at least:

(1) An ATPL(H), appropriate class rating(s), and an instrument – helicopter rating;

(2) A valid FI certificate with a helicopter category rating, the appropriate class rating(s), and an instrument – helicopter rating;

(3) 2000 hours as PIC, including at least:

(i) 1200 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) 100 hours of instrument flight time in actual or simulated conditions; and

(iii) For the authority to conduct skill tests in large helicopters:

(A) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(B) 25 hours for each additional type of large helicopter for which designation is sought;

(4) 250 hours as an FI in helicopters, including at least:

(i) 100 hours of flight instruction given in helicopters; and

(ii) 50 hours of instrument flight instruction in helicopters.

(c) Experience ATPE – Powered-Lift Category. The examiner applicant shall have at least:

(1) An ATPL(PL), any applicable class rating(s), and an instrument – powered-lift rating;

(2) A valid FI certificate with a powered-lift category rating, any applicable class rating(s), and an instrument – powered-lift rating;

(3) 2000 hours as PIC, including at least:

(i) 1500 hours in powered-lifts, of which 300 hours were accrued within the past year;

(ii) 100 hours at night in powered-lifts;

(iii) 100 hours of instrument flight time in actual or simulated conditions; and

(iv) For the authority to conduct skill tests in large or turbine-engine powered-lifts:

(A) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought; and

(B) 25 hours for each additional type of large aeroplane for which designation is sought;

(4) 500 hours as an FI in powered-lifts, including at least:

(i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts; and

(ii) 150 hours of flight instruction given for a CPL(PL), an ATPL(PL), or an IR(PL).

2.3.11.6 EXPERIENCE REQUIREMENTS FOR FLIGHT INSTRUCTOR EXAMINER (FIE)

(a) The examiner applicant shall have at least:

(1) The requirements for a CE or a CIRE designation, as appropriate for the category and class of aircraft pertinent to the FIE designation sought; and

(2) Held a CE or a CIRE designation for at least a year prior to designation as a FIE.

2.3.12 REMOTE PILOT LICENCE (RPL)

Note 1: ICAO Assembly Resolution A38-12, Appendix C, resolves that pending the coming into force of International Standards respecting particular categories, classes, or types of aircraft, certificates issued or rendered valid, under national regulations, by the Contracting State in which the aircraft is registered, shall be recognised by other Contracting States for the purposes of flight over their territories, including landings and take-offs.

Note 2: Certification Standards are not yet developed by ICAO. Thus, in the meantime, any certification need not be automatically deemed to comply with the SARPs of the related ICAO Annexes, including Annexes 1, 6, and 8, until such time as the related RPAS SARPs are developed.

Note 3: Notwithstanding the ICAO Assembly Resolution A38-12, Article 8 of the Chicago Convention assures each Contracting State of the absolute sovereignty over the authorisation for RPA operation over its territory.

Note 4: The provisions of this section are for international IFR operations of RPAS.

2.3.12.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an RPL shall not be less than 18 years of age.

(b) MEDICAL FITNESS. The applicant for an RPL shall hold a current Class 3 medical certificate or a current Class 1 medical certificate.

(c) KNOWLEDGE AREAS. The applicant for an RPL shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of an RPL and appropriate to the category of RPA and associated RPS intended to be included in the RPL, in at least the following subjects:

(1) Air Law

(i) Rules and regulations relevant to the holder of an RPL; rules of the air; appropriate ATS practices and procedures;

(ii) Rules and regulations relevant to flight under IFR; related ATS practices and procedures;

(2) General RPAS knowledge.

(i) Principles of operation and functioning of engines, systems, and instruments;

(ii) Operating limitations of the relevant category of RPA and engines; relevant operational information from the flight manual or other appropriate document;

(iii) Use and serviceability checks of equipment and systems of appropriate RPA;

(iv) Maintenance procedures for airframes, systems, and engines of appropriate RPA;

(v) For rotorcraft and powered-lift, transmission (power-trains), where applicable;

(vi) Use, limitation, and serviceability of avionics, electronic devices, and instruments necessary for the control and navigation of an RPA under IFR and in IMC;

(vii) Flight instruments; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

(viii) For airships, physical properties and practical application of gases;

(ix) RPS general knowledge:

(A) Principles of operation and function of systems and instruments;

(B) Use and serviceability checks of equipment and systems of appropriate RPS;

(C) Procedures in the event of malfunctions;

(x) C2 link general knowledge:

(A) Different types of C2 links and their operating characteristics and limitations;

(B) Use and serviceability checks of C2 link systems;

(C) Procedures in the event of C2 link malfunction;

(xi) Detect and avoid capabilities for RPAS;

(3) Flight performace, Planning and Loading;

(i) Effects of loading and mass distribution on RPA handling, flight characteristics, and performance; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to RPAS operations under IFR; preparation and submission of ATS flight plans under IFR; appropriate ATS procedures; altimeter setting procedures;

(iv) In the case of airships, rotorcraft, and powered-lifts, effects of external loading on handling;

(4) Human performance.

(i) Human performance relevant to RPA and instrument flight, including principles of threat and error management;

(5) Meteorology.

(i) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect on aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

(iii) Causes, recognition, and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(iv) In the case of rotorcraft and powered-lifts, effects of rotor icing;

(v) In the case of high-altitude operations, practical high-altitude meteorology, including interpretation and use of weather reports, charts, and forecasts; jet streams;

(6) Navigation.

(i) Air navigation, including the use of aeronautical charts, instruments, and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of RPAS equipment;

(ii) Use, limitation, and serviceability of avionics and instruments necessary for control and navigation;

(iii) Use, accuracy, and reliability of navigation systems used in departure, en route, approach, and landing phases of flight; identification of radio navigation aids;

(iv) Principles and characteristics of self-contained and external-referenced navigation systems; operation of RPAS equipment;

(7) Operational procedures.

(i) Application of threat and error management to operational performance;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en route, descent, and approach;

(iii) Altimeter setting procedures;

(iv) Appropriate precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;

(v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods and their management;

(vi) Requirements and practices for safety briefings to remote flight crew members;

(vii) In the case of rotorcraft and, if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

(viii) Operational procedures for handovers and coordination; and

(ix) Operational procedures for normal and abnormal C2 link operations;

(8) Principles of flight

(i) Principles of flight; and

(9) Radiotelephony (RT).

(i) RT procedures and phraseology; action to be taken in case of communication failure.

(d) SKILL.

(1) The applicant for an RPL shall have demonstrated all the competencies of the adapted competency model approved by the Authority at the level required, to act as remote PIC of an RPAS operation within the appropriate category of RPA and associated RPS.

(2) If the privileges of the RP are to be exercised on a multi-engined RPA, the applicant shall have demonstrated the ability to operate under IFR with degraded propulsion capabilities.

2.3.12.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE REMOTE PILOT LICENCE

(a) Experience. The applicant for an RPL shall have gained experience during training in operating the RPA and associated RPS to successfully demonstrate the competencies required in 2.3.12. of Part 2.

(b) RPL Training.

(1) In order to meet the requirements of the RPL, the applicant shall have completed an approved

training course. The training shall be competency based and, if applicable, conducted in a multi-crew operational environment.

(2) During the training, the applicant for an RPL shall have acquired the competencies and underpinning skills required for performing as an RP of an RPA certificated for operation under IFR.

(3) The applicant for an RPL shall have received dual RPL training in an RPA and associated RPS, sought from an authorised RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in all phases of flight and the entire operating envelope of an RPAS, including abnormal and emergency conditions, upset prevention and recovery training for the categories concerned, and IFR operations.

(4) If the privileges of the RP are to be exercised on a multi-engined RPA, the applicant shall have received dual instrument RPL training in a multi-engined RPA within the appropriate category from an authorised RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in the operation of the RPA within the appropriate category with engines inoperative or simulated inoperative.

2.3.12.3 GENERAL LICENSING SPECIFICATIONS

(a) A person shall not act either as remote PIC or as remote CP of an RPA in any of the following RPA categories unless that person is the holder of an RPL issued in accordance with the provisions of Part 2.:

(1) Aeroplane

(2) Airship

(3) Rotorcraft Powered-lift

(b) The category of RPA shall be endorsed as a category rating on the RPL.

(c) The applicant for an RPL shall, before being issued with any RPL or rating, meet such requirements with respect to age, experience, flight instruction, competencies, and medical fitness as are specified for that RPL or rating.

(d) The applicant for any RPL or rating shall demonstrate, in a manner determined by the Authority, such requirements for knowledge and skill as are specified for that RPL or rating.

(e) RPLs shall be validated or converted in accordance with the requirements of Part 2.

2.3.12.4 CATEGORY RATINGS

(a) When established, category ratings shall be for categories of RPA listed in 2.3.12.3 of Part 2.

(b) The holder of an RPL seeking additional category ratings to be added to the existing licence shall meet the requirements of Part 2 regarding RPAS appropriate to the privileges for which the category rating is sought.

2.3.12.5 CLASS AND TYPE RATINGS

(a) A class rating shall be established for RPA and associated RPS certificated for single-RP operation which have comparable handling, performance, and characteristics, unless a type rating is considered necessary by the Authority.

(b) A type rating shall be established for RPA and associated RPS certificated for operation with a minimum crew of at least two RPs or when considered necessary by the Authority.

Note: Where a common type rating is established, it will be only for RPA with similar characteristics in terms of operating procedures, systems, and handling.

(c) When an applicant for an RPL demonstrates competencies for the initial issue of an RPL, the category and ratings appropriate to the class or type of RPA and associated RPS used in the

demonstration shall be entered on that RPL.

(d) The levels of performance to be achieved to operate the class or type of RPA for which the ratings are issued shall be publicly available.

2.3.12.6 CIRCUMSTANCES IN WHICH CLASS AND TYPE RATINGS ARE REQUIRED

(a) A Contracting State having issued an RPL will not permit the holder of such RPL to act either as remote PIC or as remote CP of an RPA and associated RPS unless the holder has received authorisation as follows:

(1) The appropriate class rating specified in paragraph 2.3.12.5(a) of Part 2; or

(2) A type rating when required in accordance with the provisions of paragraph 2.3.12.5(b) of Part 2.

(i) When a type rating is issued limiting the privileges to act as remote CP, or limiting the privileges to act as RP only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

(ii) When a class rating is issued limiting the privileges to act as RP only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

(b) For the purpose of training, testing, or specific special-purpose non-revenue flights, special authorisation may be provided in writing to the RPL holder by the Authority in place of issuing the class or type rating in accordance with paragraph 2.3.12.6(a) of this subsection. This authorisation shall be limited in validity to the time needed to complete the specific flight.

2.3.12.7 REQUIREMENTS FOR THE ISSUE OF CLASS AND TYPE RATINGS

(a) The applicant for an RPL shall have demonstrated the competencies required for the safe operation of an RPA of the class for which the rating is sought.

(b) Type rating as required by 2.3.12.5 of Part 2. The applicant for an RPL shall have:

(1) Gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or FSTD in the following:

(i) Normal flight procedures and manoeuvres during all phases of flight;

(ii) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 link, systems, and airframe;

(iii) Instrument procedures, including instrument approach, missed approach, and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure;

(iv) For the issue of an aeroplane category type rating, upset prevention and recovery training; and

(v) Procedures for crew incapacitation and crew coordination, including allocation of RP tasks; crew cooperation and use of checklists;

(2) Demonstrated the competencies required for the safe operation of the applicable type of RPA and associated RPS and shall have demonstrated C2 link management skills relevant to the duties of a remote PIC or a remote CP, as applicable.

Note: Attention is called to 2.3.12.9 of Part 2 on the qualifications required for RPs giving RPAS training.

2.3.12.8 USE OF A FLIGHT SIMULATION TRAINING DEVICE FOR ACQUISITION OF EXPERIENCE AND DEMONSTRATION OF COMPETENCIES

(a) The use of an FSTD for acquiring the required experience or performing any manoeuvre required during the demonstration of competencies for the issue of an RPL or rating shall be approved by the

Authority, which will ensure that the FSTD used is appropriate to the task.

2.3.12.9 CIRCUMSTANCES IN WHICH AUTHORISATION TO CONDUCT REMOTE PILOT LICENCE TRAINING IS REQUIRED.

(a) A Contracting State, having issued an RPL, will not permit the holder thereof to carry out RPL training required for the issue of an RPL or rating unless such holder has received proper authorisation from such Contracting State. Proper authorisation shall comprise:

(1) An RPAS instructor rating on the holder's RPL; or

(2) The authority to act as an agent of an ATO authorised by the Authority to carry out RPL training; or

(3) A specific authorisation granted by the Contracting State which issued the RPL.

(b) A Contracting State will not permit a person to carry out RPL training on an FSTD required for the issue of an RPL or rating unless such person holds or has held an appropriate RPL or has appropriate RPAS training and flight experience and has received proper authorisation from such Contracting State.

2.3.12.10 CREDITING OF RPAS FLIGHT TIME

(a) A student RP shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for the initial issue of an RPL.

(b) The holder of an RPL shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(c) The holder of an RPL shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

(d) The holder of an RPL, when acting as remote CP of an RPA certificated for operation by a single RP, but required by a Contracting State to be operated with a remote CP, shall be entitled to be credited with not more than 50 per cent of the remote CP RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade. The Contracting State may authorise that RPAS flight time be credited in full towards the total RPAS flight time required if the RPAS is equipped to be operated by a remote CP and is operated in a multi-crew operation.

(e) The holder of an RPL, when acting as remote CP of an RPA certificated to be operated with a remote CP, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(f) The holder of an RPL, when acting as remote PIC under supervision, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(g) When applying for a new rating, the holder of an RPL shall be entitled to be credited with RPAS flight time experience as an RP of RPA. The Authority will determine whether such experience is acceptable and, if so, the extent to which the experience requirements for the issue of a rating can be reduced accordingly.

Note: The total RPAS flight time required is derived from the approved competency-based training programme.

2.3.12.11 LIMITATION OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 65TH BIRTHDAY

(a) A Contracting State, having issued an RPL, will not permit the holder thereof to act as pilot of an RPAS engaged in international commercial air transport operations if the licence holder has attained his or her 60th birthday or, in the case of operations with more than one pilot, his or her 65th birthday.

2.3.12.12 PRIVILEGES OF THE HOLDER OF THE REMOTE PILOT LICENCE AND THE CONDITIONS TO BE OBSERVED IN EXERCISING SUCH PRIVILEGES

(a) Subject to compliance with the requirements specified in 2.3.12.4 and 2.3.12.5, the privileges of the holder of an RPL shall be:

(1) To act as remote PIC of an RPA and associated RPS, certificated for remote single-pilot operation;

(2) To act as remote CP of an RPA and associated RPS, required to be operated with a remote CP;

(3) To act as a remote PIC of an RPA and the associated RPS, required to be operated with a remote CP; and

(4) To act either as remote PIC or as remote CP of an RPAS under IFR.

(b) Before exercising the privileges at night, the RPL holder shall have received dual instruction in an RPA and associated RPS in night flying, including take-off, landing, and navigation.

Note: Certain privileges of the RPL are curtailed by 2.3.12.11 of Part 2 for RPL holders when they attain their 60th and 65th birthdays.

2.3.12.13 RPAS INSTRUCTOR RATING - RESERVED

2.3.12.14 STUDENT REMOTE PILOT

(a) A student RP shall meet requirements prescribed by the Contracting State concerned. In prescribing such requirements, Contracting States will ensure that the privileges granted would not permit student RPs to constitute a hazard to air navigation.

(b) A student RP shall not fly an RPA solo unless under the supervision of, or with the authority of, an authorised RPAS instructor.

(c) A student RP shall not fly an RPA solo on international RPAS operations unless by special or general arrangement between the Contracting States concerned.

(d) Medical Fitness.

(1) A Contracting State will not permit a student RP to fly an RPA solo unless that student holds a current Class 3 or a current Class 1 medical certificate.

Note: A Class 1 medical certificate may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.

2.3.12.15 REMOTE PILOT LICENCE

Note: The provisions of this section are for international IFR operations of RPAS.

2.3.12.16 REQUIREMENTS FOR THE ISSUE OF THE RATING

(a) KNOWLEDGE.

(1) The applicant shall demonstrate the ability to effectively assess trainees against the adapted competency model used in the approved training programme.

(2) The applicant shall successfully complete the training and meet the qualifications of an ATO appropriate to the delivery of competency-based training programmes.

(3) The RPAS instructor training programme shall focus on the development of competence in the following specific areas:

(i) The adapted competency model of the RP training programme according to the

defined grading system used by the RPAS operator or ATO;

(ii) In accordance with the assessment and grading system of the RPAS operator or ATO, making assessments by observing behaviours; gathering objective evidence regarding the observable behaviours of the adapted competency model used;

(iii) Recognising and highlighting performance that meets competency standards;

(iv) Determining root causes for deviations below the expected standards of performance; and

(v) Identifying situations that could result in unacceptable reductions in safety margins.

(4) The applicant shall have met the competency requirements for the issue of an RPL as appropriate to the category of RPA and associated RPS.

(5) In addition, the applicant shall have demonstrated a level of competency appropriate to the privileges granted to the holder of an RPAS instructor rating, in at least the following areas:

(i) Techniques of applied instruction;

(ii) Assessment of student performance in those subjects in which ground instruction is given;

(iii) The learning process;

(iv) Elements of effective teaching;

(v) Competency-based training principles, including student assessments;

(vi) Evaluation of the training programme effectiveness;

(vii) Lesson planning;

(viii) Classroom instructional techniques;

(ix) Use of training aids, including FSTDs, as appropriate;

(x) Analysis and correction of student errors;

(xi) Human performance relevant to RPAS, instrument, flight, and RPL training, including principles of threat and error management; and

(xii) Hazards involved in simulating system failures and malfunctions in the aircraft.

(b) SKILL.

(1) The applicant shall have successfully performed a formal competency assessment, prior to conducting instruction and assessment within a competency-based training programme.

(2) The competency assessment shall be conducted during a practical training session in the category of RPA and associated RPS for which RPAS instructor privileges are sought, including pre-flight, post-flight, and ground instruction, as appropriate.

(3) The competency assessment shall be conducted by a person authorised by the Authority.

(c) EXPERIENCE.

(1) The applicant shall have met the requirements for the issue of an RPL, shall maintain competencies, and shall meet the recent experience requirements for the licence.

(2) The applicant shall have sufficient training and experience to attain the required level of proficiency in all the required tasks, manoeuvres, operations and principles, and methods of instruction relevant to 2.3.12.16(c).

(d) RPL TRAINING.

(1) The applicant shall, under the supervision of an RPAS instructor authorised by the Authority for that purpose:

(2) Have received training in RPAS instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(3) Have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide RPL training.

2.3.12.17 PRIVILEGES OF THE HOLDER OF THE RATING AND THE CONDITIONS TO BE OBSERVED

(a) Subject to compliance with the requirements specified in 2.12.1.8, the privileges of the holder of an RPAS instructor rating shall be:

(1) To supervise solo flights by student RPs; and

(2) To carry out RPL training for the issue of an RPL and an RPAS instructor rating, provided that the RPAS instructor:

(i) Holds at least the RPL and rating for which instruction is being given, in the appropriate RPA category and associated RPS;

(ii) Holds the RPL and rating necessary to act as the remote PIC of the RPA category and associated RPS on which the instruction is given; and

(iii) Has the RPAS instructor privileges granted endorsed on the RPL.

(b) The applicant, in order to carry out RPL training in a multi-crew operational environment, shall have also met all the instructor qualification requirements.

2.4 RESERVED.

2.5 RESERVED.

2.6 AVIATION MAINTENANCE LICENSING, INSTRUCTORS, AND DESIGNATED EXAMINERS

2.6.1 AIRCRAFT MAINTENANCE LICENCE – TECHNICAL REQUIREMENTS

2.6.1.1 SCOPE

(a) This Sub-section establishes the requirements for application, issue and continuation of its validity.

(b) For the purpose of this Sub-Part, the Authority shall be the entity to whom a person first applies for the issuance of an aircraft maintenance licence;

(c) The Authority shall be responsible for defining:

(1) the list of aircraft types; and

(2) what airframe/engine combinations are included in each particular aircraft type rating.

2.6.1.2 AMT LICENSE CATEGORIES

(a) Aircraft maintenance licences include the following categories:

(1) Category A

(2) Category B1

(3) Category B2

(4) Category B3

(5) Category C

(b) Categories A and B1 are subdivided into subcategories relative to combinations of aeroplanes, helicopters, turbine and piston engines. These subcategories are:

(1) A1 and B1.1 Aeroplanes Turbine

(2) A2 and B1.2 Aeroplanes Piston

(3) A3 and B1.3 Helicopters Turbine

(4) A4 and B1.4 Helicopters Piston

(c) Category B3 is applicable to piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below.

2.6.1.3 AMT LICENSE AIRCRAFT GROUP RATINGS

(a) For the purpose of ratings on AMT licences, aircraft shall be classified in the following groups:

(1) Group1: complex motor-powered aircraft as well as multiple engine helicopters, aeroplanes with maximum certified operating altitude exceeding FL290, aircraft equipped with fly-by-wire systems and other aircraft requiring an aircraft type rating when defined so by the Authority.

(2) Group 2: aircraft other than those in Group 1 belonging to the following subgroups:

(i) sub-group 2a: single turbo-propeller engine aeroplanes;

(ii) sub-group 2b: single turbine engine helicopters;

(iii) sub-group 2c: single piston engine helicopters.

(3) Group 3: piston engine aeroplanes other than those in Group 1.

2.6.1.4 APPLICATION

(a) An application for an aircraft maintenance licence or change to such licence shall be made on a CCAA Form 20 (see IS 2.6.1.4) in a manner established by the Authority and submitted thereto.

(b) An application for the change to an aircraft maintenance licence shall be made to the Authority.

(c) In addition to the documents required in points 2.6.1.4(a), 2.6.1.4(b) and 2.6.2.7, as appropriate, the applicant for additional basic categories or subcategories to an aircraft maintenance licence shall submit his/her current original aircraft maintenance licence to the Authority together with the CCAA Form 20.

(d) Where the applicant for change of the basic categories qualifies for such change via the procedure referred to in point 2.6.2.6, the application shall be sent to the Authority referred to in point 2.6.1.

(e) Where the applicant for change of the basic categories qualifies for such change via the procedure referred to in point 2.6.2.7, the maintenance organisation approved in accordance with Part 6 shall send the aircraft maintenance licence together with the CCAA Form 20 to the Authority referred to in point 2.6.1 for stamp and signature of the change or reissue of the licence, as appropriate.

(f) Each application shall be supported by documentation to demonstrate compliance with the applicable theoretical knowledge, skill test, skill test and experience requirements at the time of application.

(g) Each application shall comply with the applicable fees as per “Landsverordening

Luchtvaarttarieven".

2.6.1.5 ELIGIBILITY

(a) An applicant for an aircraft maintenance licence shall be at least 18 years of age.

2.6.1.6 PRIVILEGES

(a) The following privileges shall apply:

(1) A category A aircraft maintenance licence permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in Part 6. The certification privileges shall be restricted to work that the licence holder has personally performed in the maintenance organisation that issued the certification authorisation.

(2) A category B1 aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B1 support staff following:

(i) maintenance performed on aircraft structure, powerplant and mechanical and electrical systems,

(ii) work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.

(iii) Category B1 includes the corresponding A subcategory.

(3) A category B2 aircraft maintenance licence shall permit the holder:

(i) to issue certificates of release to service and to act as B2 support staff for following:

(A) maintenance performed on avionic and electrical systems, and

(B) electrical and avionics tasks within powerplant and mechanical systems, requiring only simple tests to prove their serviceability; and

(ii) to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the certification authorisation referred to in Part 6. This certification privilege shall be restricted to work that the licence holder has personally performed in the maintenance organisation which issued the certification authorisation and limited to the ratings already endorsed in the B2 licence.

(iii) The category B2 licence does not include any A subcategory.

(4) A category B3 aircraft maintenance licence shall permit the holder to issue certificates of release to service and to act as B3 support staff for:

(i) maintenance performed on aeroplane structure, powerplant and mechanical and electrical systems,

(ii) work on avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting.

(5) A category C aircraft maintenance licence shall permit the holder to issue certificates of release to service following base maintenance on aircraft. The privileges apply to the aircraft in its entirety.

(b) The holder of an aircraft maintenance licence may not exercise its privileges unless:

(1) in compliance with the applicable requirements of Part 5 and Part 6; and

(2) in the preceding 2-year period he/she has, either had 6 months of maintenance

experience in accordance with the privileges granted by the aircraft maintenance licence or, met the provision for the issue of the appropriate privileges; and

(3) he/she has the adequate competence to certify maintenance on the corresponding aircraft; and

(4) he/she is able to read, write and communicate to an understandable level in the language(s) in which the technical documentation and procedures necessary to support the issue of the certificate of release to service are written.

2.6.1.7 BASIC KNOWLEDGE REQUIREMENTS

(a) An applicant for an aircraft maintenance licence, or the addition of a category or subcategory to such a licence, shall demonstrate by examination a level of knowledge in the appropriate subject modules in accordance with the IS 2.6.1.7 to Part 2. The examination shall be conducted either by a training organisation appropriately approved in accordance with Part 3 or by the Authority.

(b) The training courses and examinations shall be passed within 10 years prior to the application for an aircraft maintenance licence or the addition of a category or subcategory to such aircraft maintenance licence. Should this not be the case, examination credits may however be obtained in accordance with point (c).

(c) The applicant may apply to the Authority for full or partial examination credit to the basic knowledge requirements for:

(1) basic knowledge examinations that do not meet the requirement described in point (b) above; and

(2) any other technical qualification considered by the Authority to be equivalent to the knowledge standard of Part 2.

(d) Credits shall be granted in accordance with Subpart E of Section B of this Part.

(e) Credits expire 10 years after they were granted to the applicant by the Authority. The applicant may apply for new credits after expiration.

2.6.1.8 BASIC EXPERIENCE REQUIREMENTS

(a) An applicant for an aircraft maintenance licence shall have acquired:

(1) for category A, subcategories B1.2 and B1.4 and category B3:

(i) years of practical maintenance experience on operating aircraft, if the applicant has no previous relevant training; or

(ii) 2 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the Authority as a skilled worker, in a technical trade; or

(iii) 1 year of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with Part 3;

(2) for category B2 and subcategories B1.1 and B1.3:

(i) years of practical maintenance experience on operating aircraft if the applicant has no previous relevant technical training; or

(i) 3 years of practical maintenance experience on operating aircraft and completion of training considered relevant by the competent authority as a skilled worker, in a technical trade; or

(ii) 2 years of practical maintenance experience on operating aircraft and completion of a basic training course approved in accordance with Part 3;

(3) for category C with respect to large aircraft:

(i) 3 years of experience exercising category B1.1, B1.3 or B2 privileges on large aircraft or as support staff or, a combination of both; or

(ii) Years of experience exercising category B1.2 or B1.4 privileges on large aircraft or as support staff or a combination of both;

(4) for category C with respect to other than large aircraft: 3 years of experience exercising category B1 or B2 privileges on other than large aircraft or as support staff or a combination of both;

(5) for category C obtained through the academic route: an applicant holding an academic degree in a technical discipline, from a university or other higher educational institution recognised by the Authority, 3 years of experience working in a civil aircraft maintenance environment on a representative selection of tasks directly associated with aircraft maintenance including 6 months of observation of base maintenance tasks.

(b) An applicant for an extension to an aircraft maintenance licence shall have a minimum civil aircraft maintenance experience requirement appropriate to the additional category or subcategory of licence applied for as defined in IS 2.6.1.8 to this Part.

(c) The experience shall be practical and involve a representative cross section of maintenance tasks on aircraft.

(d) At least 1 year of the required experience shall be recent maintenance experience on aircraft of the category/subcategory for which the initial aircraft maintenance licence is sought. For subsequent category/subcategory additions to an existing aircraft maintenance licence, the additional recent maintenance experience required may be less than 1 year, but shall be at least 3 months. The required experience shall be dependent upon the difference between the licence category/subcategory held and applied for. Such additional experience shall be typical of the new licence category/ subcategory sought.

(e) Notwithstanding paragraph (d), aircraft maintenance experience gained outside a civil aircraft maintenance environment shall be accepted when such maintenance is equivalent to that required by this Part as established by the Authority. Additional experience of civil aircraft maintenance shall, however, be required to ensure adequate understanding of the civil aircraft maintenance environment.

(f) Experience shall have been acquired within the 10 years preceding the application for an aircraft maintenance licence or the addition of a category or subcategory to such a licence.

2.6.1.9 RESERVED

2.6.1.10 CONTINUED VALIDITY OF THE AIRCRAFT MAINTENANCE LICENCE

(a) The aircraft maintenance licence becomes invalid 5 years after its last issue or change, unless the holder submits his/her aircraft maintenance licence to the Authority that issued it, in order to verify that the information contained in the licence is the same as that contained in the Authority records, pursuant to point 2.6.2.10.

(b) The holder of an aircraft maintenance licence shall complete the relevant parts of CCAA Form 20 (see IS 2.6.1.4) and submit it with the holder's copy of the licence to the Authority that issued the original aircraft maintenance licence, unless the holder works in a maintenance organisation approved in accordance with Part 6 that has a procedure in its exposition whereby such organisation may submit the necessary documentation on behalf of the aircraft maintenance licence holder.

(c) Any certification privilege based upon an aircraft maintenance licence becomes invalid as soon as the aircraft maintenance licence is invalid.

(d) The aircraft maintenance licence is only valid (i) when issued and/or changed by the Authority and (ii) when the holder has signed the document.

2.6.1.11 ENDORSEMENT WITH AIRCRAFT RATINGS

(a) In order to be entitled to exercise certification privileges on a specific aircraft type, the holder of an aircraft maintenance licence need to have his/her licence endorsed with the relevant aircraft ratings.

(1) For category B1, B2 or C the relevant aircraft ratings are the following:

(i) For group 1 aircraft, the appropriate aircraft type rating.

(ii) For group 2 aircraft, the appropriate aircraft type rating, manufacturer sub-group rating or full sub-group rating.

(iii) For group 3 aircraft, the appropriate aircraft type rating or full group rating.

(2) For category B3, the relevant rating is 'piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below'.

(3) For category A, no rating is required, subject to compliance with the requirements of Part 6.

(b) The endorsement of aircraft type ratings requires the satisfactory completion of the relevant category B1, B2 or C aircraft type training.

(c) Addition to the requirement of point (b), the endorsement of the first aircraft type rating within a given category/sub-category requires satisfactory completion of the corresponding on the Job Training, as described in IS 2.6.1.11 to Part 2.

(d) By derogation from points (b) and (c), for group 2 and 3 aircraft, aircraft type ratings may also be granted after:

(1) satisfactory completion of the relevant category B1, B2 or C aircraft type examination described in IS 2.6.1.11 to this Part 2, and

(2) in the case of B1 and B2 category, demonstration of practical experience on the aircraft type. In that case, the practical experience shall include a representative cross section of maintenance activities relevant to the licence category.

(3) in the case of a category C rating for a person qualified by holding an academic degree as specified in point 2.6.1.8 (a)(5), the first relevant aircraft type examination shall be at the category B1 or B2 level.

(e) For group 2 aircraft

(1) the endorsement of manufacturer sub-group ratings for category B1 and C licence holders requires complying with the aircraft type rating requirements of at least two aircraft types from the same manufacturer which combined are representative of the applicable manufacturer sub-group;

(2) the endorsement of full sub-group ratings for category B1 and C licence holders requires complying with the aircraft type rating requirements of at least three aircraft types from different manufacturers which combined are representative of the applicable sub-group;

(3) the endorsement of manufacturer sub-groups and full sub-group ratings for category B2 licence holders requires demonstration of practical experience which shall include a representative cross section of maintenance activities relevant to the licence category and to the applicable aircraft sub-group.

(f) For group 3 aircraft:

(1) the endorsement of the full group 3 rating for category B1, B2 and C licence holders requires demonstration of practical experience, which shall include a representative cross section of maintenance activities relevant to the licence category and to the group 3.

(2) for category B1, unless the applicant provides evidence of appropriate experience, the group 3 rating shall be subject to the following limitations, which shall be endorsed on the licence:

(i) pressurised aeroplanes

(ii) metal structure aeroplanes

(iii) composite structure aeroplanes

(iv) wooden structure aeroplanes

(v) aeroplanes with metal tubing structure covered with fabric.

(g) For the B3 licence:

(1) the endorsement of the rating 'piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below' requires demonstration of practical experience which shall include a representative cross-section of maintenance activities relevant to the licence category.

(2) unless the applicant provides evidence of appropriate experience, the rating referred to in point 1 shall be subject to the following limitations, which shall be endorsed on the licence:

(i) wooden structure aeroplanes
(ii) aeroplanes with metal tubing structure covered with fabric
(iii) metal structure aeroplanes
(iv) composite structure aeroplanes.

2.6.1.12 LIMITATIONS

(a) Limitations introduced on an aircraft maintenance licence are exclusions from the certification privileges and affect the aircraft in its entirety.

(b) For limitations referred to in point 2.6.1.11, limitations shall be removed upon:

(1) demonstration of appropriate experience; or

(2) after a satisfactory skill test performed by the Authority.

(c) For limitations referred to in point 2.6.1.14, limitations shall be removed upon satisfactory completion of examination on those modules/subjects defined in the applicable conversion report referred to in point 2.6.2.14.

2.6.1.13 EVIDENCE OF QUALIFICATION

(a) Personnel exercising certification privileges as well as support staff shall produce their licence, as evidence of qualification, within 24 hours upon request by an authorised person.

2.6.1.14 CONVERSION PROVISIONS

(a) The holder of a certifying staff qualification valid in Curaçao, prior to the date of entry into force of Part 2 shall be issued an aircraft maintenance licence by the Authority without further examination subject to the conditions specified in Section B Subpart D.

(b) A person undergoing a certifying staff qualification process valid in Curaçao, prior to the date of entry into force of Part 2 may continue to be qualified. The holder of a certifying staff qualification gained following such process shall be issued an aircraft maintenance licence by the Authority without further examination subject to the conditions specified in Section B Subpart D.

(c) Where necessary, the aircraft maintenance licence shall contain limitations in accordance with point 2.6.1.12 to reflect the differences between (i) the scope of the certifying staff qualification valid in Curaçao before the entry into force of this Regulation and (ii) the basic knowledge requirements and the basic examination standards laid down in IS 2.6.1.7 and 2.6.2.13 to this Part.

(d) By derogation to paragraph (c) for aircraft not involved in commercial air transport other than large aircraft, the aircraft maintenance licence shall contain limitations in accordance with point 2.6.1.12 to ensure that the certifying staff privileges valid in Curaçao before the entry into force of this Regulation and the privileges of the converted Part 2 aircraft maintenance licence remain the same.

2.6.2 PROCEDURES FOR AUTHORITY

2.6.2.1 SCOPE

(a) This section establishes the procedures including the administrative requirements to be followed by the Authorities in charge of the implementation and the enforcement of Section A of this Part.

2.6.2.2 AUTHORITY

(a) The Authority is responsible for the issuance, continuation, change, suspension or revocation of aircraft maintenance licences.

(b) This Authority shall establish an adequate organisational structure to ensure compliance with this Part.

(c) The Authority shall be appropriately staffed to ensure the implementation of the requirements of this Part.

(d) The Authority shall establish documented procedures detailing how compliance with this Part is accomplished. These procedures shall be reviewed and amended to ensure continued compliance.

2.6.2.3 RECORD-KEEPING

(a) The Authority shall establish a system of record-keeping that allows adequate traceability of the process to issue, revalidate, change, suspend or revoke each aircraft maintenance licence.

(b) These records shall include for each licence:

(1) the application for an aircraft maintenance licence or change to that licence, including all supporting documentation;

(2) a copy of the aircraft maintenance licence including any changes;

(3) copies of all relevant correspondence;

(4) details of any exemption and enforcement actions;

(5) any report from other competent authorities relating to the aircraft maintenance licence holder;

(6) the records of examinations conducted by the Authority;

(7) the applicable conversion report used for conversion;

(8) the applicable credit report used for crediting.

(c) Records referred to in points 1 to 5 of point (b) shall be kept at least 7 years after the end of the licence validity.

(d) Records referred to in points 6, 7 and 8 of point (b) shall be kept for an unlimited period.

2.6.2.4 MUTUAL EXCHANGE OF INFORMATION

(a) In order to implement the requirement of this Regulation, the authority shall participate in a mutual exchange of information with other ICAO Member States.

(b) Without prejudice to the competencies of the ICAO Member States, in the case of a potential safety threat involving several ICAO Member States, the authority shall assist in carrying out the necessary oversight action.

2.6.2.5 EXEMPTIONS

(a) All exemptions granted in accordance with this Part shall be approved by the Director General, recorded and retained by the Authority.

2.6.2.6 PROCEDURE FOR THE ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE BY THE AUTHORITY

(a) This Paragraph provides the procedures to be followed by the Authority to issue, change or continue an aircraft maintenance licence.

(1) On receipt of CCAA Form 20 and any supporting documentation, the Authority shall verify the CCAA Form 20 for completeness and ensure that the experience claimed meets the requirement of this Part.

(2) The authority shall verify an applicant's examination status and/or confirm the validity of any credits to ensure that all required modules of IS 2.6.1.7 have been met as required by this Part.

(3) When having verified the identity and date of birth of the applicant and being satisfied that the applicant meets the standards of knowledge, skill and experience required by this Part, the authority shall issue the relevant aircraft maintenance licence to the applicant. The same information shall be kept on Authority records.

(4) In the case where aircraft types or groups are endorsed at the time of the issuance of the first aircraft maintenance licence, the Authority shall verify compliance with point 2.6.2.9.

2.6.2.7 PROCEDURE FOR THE ISSUE OF AN AIRCRAFT MAINTENANCE LICENCE VIA A MAINTENANCE ORGANISATION APPROVED IN ACCORDANCE WITH PART 6

(a) A maintenance organisation approved in accordance with Part 6, when authorised to carry out this activity by the Authority, may (i) prepare the aircraft maintenance licence on behalf of the Authority or (ii) make recommendations to the Authority regarding the application from an individual for an aircraft maintenance licence so that the Authority may prepare and issue such licence.

(b) Maintenance organisations referred to in point (a) shall ensure compliance with points 2.6.2.6 (a) and (b).

(d) In all cases, the aircraft maintenance licence can only be issued to the applicant by the Authority.

2.6.2.8 PROCEDURE FOR THE CHANGE OF AN AIRCRAFT MAINTENANCE LICENCE TO INCLUDE AN ADDITIONAL BASIC CATEGORY OR SUBCATEGORY

(a) At the completion of the procedures specified in points 2.6.2.6 or 2.6.2.7, the Authority shall endorse the additional basic category or subcategory on the aircraft maintenance licence by stamp and signature or reissue the licence.

(b) The Authority record system shall be changed accordingly.

2.6.2.9 PROCEDURE FOR THE CHANGE OF AN AIRCRAFT MAINTENANCE LICENCE TO INCLUDE AN AIRCRAFT RATING OR TO REMOVE LIMITATIONS

(a) On receipt of a satisfactory CAAA Form 19 and any supporting documentation demonstrating compliance with the requirements of the applicable rating together with the accompanying aircraft maintenance licence, the Authority shall either:

(1) endorse the applicant's aircraft maintenance licence with the applicable aircraft rating; or

(2) reissue the said licence to include the applicable aircraft rating; or

(3) remove the applicable limitations in accordance with point 2.6.1.12;

(b) The Authority record system shall be changed accordingly.

(c) In the case where the complete type training is not conducted by maintenance training organisation appropriately approved in accordance with Part 3, the Authority shall be satisfied that all type training requirements are complied with before the type rating is issued.

(d) In the case where the On the Job Training is not required, the aircraft type rating shall be endorsed based on a Certificate of Recognition issued by a maintenance training organisation approved in accordance with Part 3.

(e) In the case where the aircraft type training is not covered by a single course, the authority shall be satisfied prior to the type rating endorsement that the content and length of the courses fully satisfy the scope of the licence category and that the interface areas have been appropriately addressed.

(f) In the case of differences training, the Authority shall be satisfied that (i) the applicant's previous qualification, supplemented by (ii) either a course approved in accordance with Part 3 or a course directly approved by the Authority, are acceptable for type rating endorsement.

(g) Compliance with the practical elements shall be demonstrated (i) by the provision of detailed skill test records or a logbook provided by a maintenance organisation appropriately approved in accordance with Part 6 or, where available, (ii) by a training certificate covering the skill test element issued by a maintenance training organisation appropriately approved in accordance with Part 3.

(h) Aircraft type endorsement shall use the aircraft type ratings specified by the Authority.

2.6.2.10 PROCEDURE FOR THE RENEWAL OF AN AIRCRAFT MAINTENANCE LICENCE VALIDITY

(a) The Authority shall compare the holder's aircraft maintenance licence with the Authority records and verify any pending revocation, suspension or change action pursuant to point 2.6.2.20. If the documents are identical and no action is pending pursuant to point 2.6.2.20, the holder's copy shall be renewed for 5 years and the file endorsed accordingly.

(b) If the Authority records are different from the aircraft maintenance licence held by the licence holder:

(1) the Authority shall investigate the reasons for such differences and may choose not to renew the aircraft maintenance licence.

(2) the Authority shall inform the licence holder and any known maintenance organisation approved in accordance with Part 9 or Part 6 that may be directly affected of such fact.

(3) the Authority shall, if necessary, take action in accordance with point 2.6.2.20 to revoke, suspend or change the licence in question.

2.6.2.11 PROCEDURE FOR THE CONVERSION OF LICENCES INCLUDING GROUP RATINGS

(a) Individual aircraft type ratings already endorsed on the aircraft maintenance licence referred to in Beschikking Luchtvaartbrevetering (P.B. 1995 no. 108, as amended) shall remain on the licence and shall not be converted to new ratings unless the licence holder fully meets the requirements for endorsement defined in point 2.6.1.11 of this Part for the corresponding group/sub-group ratings.

(b) The conversion shall be performed in accordance with the following conversion table:

(c) for category B1 or C:

(1) helicopter piston engine, full group: converted to 'full sub-group 2c' plus the aircraft type ratings for those single piston engine helicopters which are in group 1,

(2) helicopter piston engine, manufacturer group: converted to the corresponding 'manufacturer sub-group 2c' plus the aircraft type ratings for those single piston engine helicopters of that manufacturer which are in group 1,

(3) helicopter turbine engine, full group: converted to 'full sub-group 2b' plus the aircraft type ratings for those single turbine engine helicopters which are in group 1,

(d) helicopter turbine engine, manufacturer group: converted to the corresponding 'manufacturer sub-group 2b' plus the aircraft type ratings for those single turbine engine helicopters of that manufacturer which are in group 1,

(1) aeroplane single piston engine — metal structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: composite structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(2) aeroplane multiple piston engines — metal structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: composite structure aero- planes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(3) aeroplane single piston engine — wooden structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, composite structure aeroplanes and metal tubing and fabric aeroplanes,

(4) aeroplane multiple piston engine — wooden structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, composite structure aeroplanes and metal tubing and fabric aeroplanes,

(5) aeroplane single piston engine — composite structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(6) aeroplane multiple piston engine — composite structure, either full group or manufacturer group: converted to 'full group 3'. For the B1 licence the following limitations shall be included: metal structure aeroplanes, wooden structure aeroplanes and metal tubing and fabric aeroplanes,

(7) aeroplane turbine — single engine, full group: converted to 'full sub-group 2a' plus the aircraft type ratings for those single turboprop aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

(8) aeroplane turbine — single engine, manufacturer group: converted to the corresponding 'manufacturer sub-group 2a' plus the aircraft type ratings for those single turboprop aeroplanes of that manufacturer which did not require an aircraft type rating in the previous system and are in group 1,

(9) aeroplane turbine — multiple engine, full group: converted to the aircraft type ratings for those multiple turboprop aeroplanes which did not require an aircraft type rating in the previous system;

(e) for category B2:

(1) aeroplane: converted to 'full sub-group 2a' and 'full group 3', plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

(2) helicopter: converted to 'full sub-groups 2b and 2c', plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1;

(f) for category C:

(1) aeroplane: converted to 'full sub-group 2a' and 'full group 3', plus the aircraft type ratings for those aeroplanes which did not require an aircraft type rating in the previous system and are in group 1,

(2) helicopter: converted to 'full sub-groups 2b and 2c', plus the aircraft type ratings for those helicopters which did not require an aircraft type rating in the previous system and are in group 1.

(g) If the licence was subject to limitations following the conversion process referred to in point 2.6.1.14, these limitations shall remain on the licence, unless they are removed under the conditions defined in the relevant conversion report referred to in point 2.6.2.14.

2.6.2.12 PROCEDURE FOR THE DIRECT APPROVAL OF AIRCRAFT TYPE TRAINING

(a) The Authority may approve aircraft type training not conducted by a maintenance training organisation approved in accordance with Part 3, pursuant to point 1 of IS 2.6.1.11 to this Part. In such case the Authority shall have a procedure to ensure the aircraft type training complies with IS 2.6.1.11 of this Part.

2.6.2.13 EXAMINATION BY THE AUTHORITY

(a) This Paragraph provides the procedures to be followed for the examinations conducted by the Authority.

(1) All examination questions shall be kept in a secure manner prior to an examination, to ensure that candidates will not know which particular questions will form the basis of the examination.

(2) The Authority shall nominate:

(i) persons who control the questions to be used for each examination;

(ii) Examiners who shall be present during all examinations to ensure the integrity of the examination.

(3) Basic examinations shall follow the standard specified in IS 2.6.1.7 and 2.6.2.13 to this Part.

(4) Type training examinations and type examinations shall follow the standard specified in IS 2.6.1.11 in this Part.

(5) New essay questions shall be raised at least every 6 months and questions already used withdrawn or rested from use. A record of the questions used shall be retained in the records for reference.

(6) All examination papers shall be handed out at the start of the examination to the candidate and handed back to the examiner at the end of the allotted examination time period. No examination paper may be removed from the examination room during the allotted examination time period.

(7) Apart from specific documentation needed for type examinations, only the examination paper may be available to the candidate during the examination.

(8) Examination candidates shall be separated from each other so that they cannot read each other's examination papers. They may not speak to any person other than the examiner.

(9) Candidates who are proven to be cheating shall be banned from taking any further examination within 12 months of the date of the examination in which they were found cheating.

2.6.2.14 CONVERSION OF CERTIFYING STAFF QUALIFICATIONS - GENERAL

(a) This Subpart provides the procedures for the conversion of certifying staff qualifications referred to in point 2.6.1.14 to aircraft maintenance licences.

(b) The Authority may only convert qualifications (i) obtained in Curaçao for which it is competent and (ii) valid prior to the entry into force of the applicable requirements of this Part.

(c) The Authority may only perform the conversion in accordance with a conversion report established pursuant to points 2.6.2.15 or 2.6.2.16, as applicable.

(d) Conversion reports shall be either (i) developed by the Authority or (ii) approved by the Authority to ensure compliance with this Part.

(e) Conversion reports together with any change of these shall be kept on record by the Authority in accordance with point 2.6.2.3.

2.6.2.15 RESERVED

2.6.2.16 CONVERSION REPORT FOR NATIONAL QUALIFICATIONS

(a) The conversion report for national certifying staff qualifications shall describe the scope of each type of qualification, including the associated national licence, if any, the associated privileges and include a copy of the relevant national regulations defining these.

(b) The conversion report shall show for each type of qualification referred to in point (a):

(1) to which aircraft maintenance licence it will be converted; and

(2) which limitations shall be added in accordance with points 2.6.1.14(c) or (d), as applicable; and

(3) the conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in IS 2.6.1.11 to this Part not covered by the national qualification.

2.6.2.17 CONVERSION REPORT FOR APPROVED MAINTENANCE ORGANISATIONS AUTHORISATIONS

(a) For each approved maintenance organisation concerned, the conversion report shall describe the scope of each type of authorisation issued by the maintenance organisation and include a copy of the relevant approved maintenance organisation's procedures for the qualification and the authorisation of certifying staff on which the conversion process is based.

(b) The conversion report shall show for each type of authorisation referred to in point (a):

(1) to which aircraft maintenance licence it will be converted, and

(2) which limitations shall be added in accordance with points 2.6.1.14(c) or (d), as applicable, and

(3) the conditions to remove the limitations, specifying the module/subjects on which examination is needed to remove the limitations and obtain a full aircraft maintenance licence, or to include an additional (sub-) category. This shall include the modules defined in IS 2.6.1.11 to this Part not covered by the national qualification.

2.6.2.18 EXAMINATION CREDITS – GENERAL

(a) This Paragraph provides the procedures for granting examination credits referred to in Paragraph 2.6.1.7(c).

(1) The Authority may only grant credit on the basis of a credit report prepared in accordance with point 2.6.2.18.

(2) The credit report shall be either (i) developed by the competent authority or (ii) approved by the Authority to ensure compliance with this Part.

(3) Credit reports together with any change of these shall be dated and kept on record by the Authority in accordance with point 2.6.2.3.

2.6.2.19 EXAMINATION CREDIT REPORT

(a) The credit report shall include a comparison between:

(1) the modules, sub-modules, subjects and knowledge levels contained in IS 2.6.1.7 to this Part, as applicable; and

(2) the syllabus of the technical qualification concerned relevant to the particular category being sought.

(b) This comparison shall state if compliance is demonstrated and contain the justifications for each statement.

(c) Credit for examinations, other than basic knowledge examinations carried out in maintenance training organisations approved in accordance with Part 3, can only be granted by the Authority by which the qualification has been obtained.

(d) No credit can be granted unless there is a statement of compliance against each module and sub-module, stating where, in the technical qualification, the equivalent standard can be found.

(e) The Authority shall check on a regular basis whether (i) the national qualification standard or (ii) IS 2.6.1.7 to this Part have changed and assess if changes to the credit report are consequently required. Such changes shall be documented, dated and recorded.

2.6.2.20 EXAMINATION CREDIT VALIDITY

(a) The Authority shall notify to the applicant in writing any credits granted together with the reference to the credit report used.

(b) Credits shall expire 10 years after they are granted.

(c) Expiration of the credits, the applicant may apply for new credits. The competent authority shall continue the validity of the credits for an additional period of 10 years without further consideration if basic knowledge requirements defined in IS 2.6.1.7 to this Part have not been changed.

2.6.2.21 CONTINUING OVERSIGHT - REVOCATION, SUSPENSION OR LIMITATION OF THE AIRCRAFT MAINTENANCE LICENCE

(a) This Paragraph describes the procedures for the continuing oversight of the aircraft maintenance licence and in particular for the revocation, suspension or limitation of the aircraft maintenance licence.

(b) The Authority shall suspend, limit or revoke the aircraft maintenance licence where it has identified a safety issue or if it has clear evidence that the person has carried out or been involved in one or more of the following activities:

(1) obtaining the aircraft maintenance licence and/or the certification privileges by falsification of documentary evidence;

(2) failing to carry out requested maintenance combined with failure to report such fact to the organisation or person who requested the maintenance;

(3) failing to carry out required maintenance resulting from own inspection combined with failure to report such fact to the organisation or person for whom the maintenance was intended to be carried out;

(4) negligent maintenance;

(5) falsification of the maintenance record;

(6) issuing a certificate of release to service knowing that the maintenance specified on the certificate of release to service has not been carried out or without verifying that such maintenance has been carried out;

(7) carrying out maintenance or issuing a certificate of release to service when adversely affected by alcohol or drugs;

(8) Issuing certificate of release to service while not in compliance with this regulation.

2.6.3 DESIGNATED AVIATION MECHANIC EXAMINERS

2.6.3.1 GENERAL REQUIREMENTS

(a) Age. An applicant for a designated mechanic examiner shall be at least 23 years of age.

(b) Medical. There are no medical requirements for a mechanic examiner.

(c) General eligibility.

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for AMT certification in both reciprocating and turbine engine aircraft.

(2) Have held a valid AMT certificate with the ratings for which a designation is to issue for five years.

(10) Have been actively exercising the privileges of that AMT certificate in the previous three years.

(11) Have a good record as an AMT and a person engaged in the industry and community with a reputation for honesty and dependability.

(12) The applicant must have for test conducted using the skill test, in accordance with IS 2.6.1.11.

(13) The applicant must have a fixed base of operation; equipment and materials must be adequate for an applicant to demonstrate the basic skills of the rating sought.

(14) The applicant must have an airworthy aircraft, other aircraft, aircraft subassemblies, operational mock-ups, and other aids that may be used for testing.

(15) The applicant must have tools, equipment, material, current publications, and necessary apparatus required to complete a project assignment must be the type recommended by the aircraft manufactures or accepted in the aviation industry.

2.6.3.2 KNOWLEDGE

(a) The applicant shall pass a pre-designation test on the following:

(1) Air Law and Regulations for AMT personnel.

(2) Current practices for the fleet of aircraft to be utilised.

(3) Recent improvement in technology, testing and tooling.

2.6.3.3 SKILL

(a) The applicant shall be observed conducting a complete, actual skill test using the approved Skill Test Standards (STS) in a satisfactory manner.

(b) The applicant shall be observed completing the required documentation required by the Authority in a satisfactory manner.

2.6.3.4 CURRENCY

(a) After designation, a Designated Maintenance Technician Examiner shall maintain currency by:

(1) Attending initial and recurrent training conducted by the Authority, and

(2) Maintaining a current and valid AMT licence and applicable ratings.

(b) The Designated AMT Examiner shall conduct at least 3 skill test during any 12 calendar month period in order to the designation remain current.

(c) The Designated AMT Examiner shall be observed by the Authority in the conduct of skill test at least once each 12 calendar months.

2.6.3.5 PRIVILEGES

(a) The Designated AMT Examiner may conduct AMT skill tests for which he/ she is designated in accordance with the Skill Test Standards as incorporated in IS 2.6.1.11.

2.6.3.6 VALIDITY

(a) The Designated AMT Examiner designation shall be valid for one year.

2.6.3.7 RENEWAL

(a) The Designated AMT Examiner designation may be renewed by Authority if:

(b) The need for the designation remains valid.

(c) The performance of the Desiganted AMT Examiner has been satisfactory.

(d) The AMT examiner has attended the Designated AMT Examiner training conducted by the Authority in the previous 12 calendar months.

2.7 AIR TRAFFIC CONTROLLER LICENCES, CATEGORIES AND RATINGS.

2.7.1 APPLICABILITY

(a) This section prescribes the requirements for the issue, renewal, and reissue of an ATCO licence and ratings.

2.7.2 GENERAL

(a) An applicant shall, before being issued an ATCO licence, meet such requirements with respect to age, knowledge, experience, skill, medical fitness, and language proficiency as are specified for that licence or rating.

(b) An applicant shall, for renewal or reissue of a licence, rating, or authorisation, meet the requirements as are specified for that licence, rating, or authorisation.

2.7.3 AIR TRAFFIC CONTROLLER LICENCE AND RATINGS

2.7.3.1 STUDENT AIR TRAFFIC CONTROLLER

(a) The Authority will take the appropriate measures to ensure that student ATCOs do not constitute a hazard to air navigation.

(b) MEDICAL FITNESS. The Authority shall not permit a student ATCO to receive instruction in an operational environment unless that student ATCO holds a current Class 3 medical certificate.

(c) Have demonstrated competence in the ability to speak and understand the English Language to at least Level 4 of the ICAO Language Profeciency Rating scale.

2.7.3.2 AIR TRAFFIC CONTROLLER LICENCE

(a) AGE. The applicant for an ATCO licence shall be at least 21 years of age.

(b) MEDICAL. The applicant for an ATCO licence shall hold a Class 3 medical certificate issued under Part 2.

(c) KNOWLEDGE. The applicant for an ATCO licence shall receive knowledge instruction through an approved training course on the following knowledge areas appropriate to the holder of an ATCO licence:

(1) AIR LAW.

(i) Rules and regulations relevant to the ATCO;

(2) AIR TRAFFIC CONTROL EQUIPMENT.

(i) Principles, use, and limitations of equipment used in air traffic control;

(3) GENERAL KNOWLEDGE.

(i) Principles of flight; principles of operation and functioning of aircraft and RPAS, engines, and systems, and aircraft performance relevant to air traffic control operations;

(4) HUMAN PERFORMANCE.

(i) Human performance, including principles of threat and error management;

Note: Guidance material to desing training programmes on human performance, including threat and error management, can be found in ICAO Doc 9683, Human Factors Training Manual.

(5) METEOROLOGY.

(i) Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;

(6) NAVIGATION.

(i) Principles of air navigation; principle, limitation, and accuracy of navigation systems and visual aids; and

(7) OPERATION PROCEDURES.

(i) Air traffic control, communication, RT and phraseology procedures (routine, non-routine, and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

(d) KNOWLEDGE TESTING. The applicant for an ATCO licence shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test.

(e) EXPERIENCE.

(1) The applicant shall have completed an approved training course and demonstrated the required competence, having accomplished not less than 3 months of satisfactory service engaged in the actual control of air traffic under the supervision of a designated OJTI. The experience requirements specified for air traffic controller ratings in 2.7.3.3 of Part 2 will be credited as part of the experience specified in this paragraph.

(2) An air traffic controller acting as a designated OJTI shall hold an appropriate rating and be qualified as a designated OJTI.

(f) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the licence is 5 years.

2.7.3.3 AIR TRAFFIC CONTROLLER RATINGS

(a) ATCO ratings shall comprise the following categories:

(1) Aerodrome control rating (ADC);

(2) Approach control procedural rating (APP);

(3) Approach control surveillance rating (APS);

(4) Approach precision radar control rating (RAD);

(5) Area control procedural rating (ACP); and

(6) Area control surveillance rating (ACS).

Note: The World Meteorological Organizatio has specified requierments for personnel making meteorological observations which apply to ATCOs providing such a service.

(b) KNOWLEDGE. The applicant for an ATCO rating shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an ATCO rating on the subjects as specified below for each rating sought:

(1) Aerodrome control rating:

(i) Aerodrome layout; physical characteristics and visual aids

(ii) Airspace structure

(iii) Applicable rules, procedures, and source of information

(iv) Air navigation facilities

(v) Air traffic control equipment and its use

(vi) Terrain and prominent landmarks

(vii) Characteristics of air traffic and traffic flow

(viii) Weather phenomena

(ix) Emergency and search and rescue plans

(2) Approach control procedural and area control procedural ratings:

(i) Airspace structure

(ii) Applicable rules, procedures, and source of information

(iii) Air navigation facilities

(iv) Air traffic control equipment and its use

(v) Terrain and prominent landmarks

(vi) Characteristics of air traffic and traffic flow

(vii) Weather phenomena

(viii) Emergency and search and rescue plans

(3) Approach control surveillance, approach precision radar control, and area control surveillance ratings:

(i) The applicant shall meet the requirements specified in paragraph 2.7.3.3(b)(2) of this subsection insofar as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:

(A) Principles, use, and limitations of applicable ATS surveillance systems and associated equipment; and

(B) Procedures for the provision of ATS surveillance services, as appropriate, including procedures to ensure appropriate terrain clearance.

(c) KNOWLEDGE TESTING. The applicant for an ATCO rating shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test.

(d) EXPERIENCE.

(1) The applicant for an ATCO licence shall have:

(i) Satisfactorily completed an approved training course;

(ii) Demonstrated the required competence while providing, under the supervision of a designated OJTI, one or more of the following:

(A) Aerodrome control rating: an aerodrome control service, for a period of not less than 90 hours or 1 month, whichever is greater, at the unit for which the rating is sought;

(B) Approach control procedural, approach control surveillance, area control procedural, or area control surveillance rating: the control service for which the rating is sought, for a period of not less than 180 hours or 3 months, whichever is greater, at the unit for which the rating is sought; and

(C) Approach precision radar control rating: not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Authority. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought;

(2) The application for a rating shall be made within 6 months from the completion of experience specified in 2.7.3.3(d)(1)(ii).

(e) SKILL. The applicant shall have demonstrated, by passing the required skill test, at a level appropriate to the privileges being granted, the skill, judgement, and performance required to provide a safe, orderly, and expeditious control service, including the recognition and management of threats and errors.

Note: Guidance material on the application of threat and error management is found in ICAO Doc 9868, Procedures for Air Nagiation Services – Training (PANS-TRG), Chapter 3, Attachment C; in ICAO Doc 9683, Human Factors Training Manual, Part II, Chapter 2; and in ICAO Circulair 314, Threat and Error Management (TEM) in Air Traffic Control.

(f) PRIVILEGES AND LIMITATIONS.

(1) Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an ATCO licence with the following applicable rating(s) shall be:

(i) Aerodrome control rating: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated;

(ii) Approach control procedural rating: to provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;

(iii) Approach control surveillance rating: to provide and/or supervise the provision of approach control service with the use of applicable ATS surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;

Note: Subject to compliance with the provisions of paragraph 2.7.3.3(d) of this subsection, the privileges shall include the provision of surveillance system approaches.

(iv) Approach precision radar control rating: to provide and/or supervise the provision of precision approach radar service at the aerodrome for which the licence holder is rated;

(v) Area control procedural rating: to provide and/or supervise the provision of area control service, within the control area or portion thereof, for which the licence holder is rated; and

(vi) Area radar control surveillance rating: to provide and/or supervise the provision of area control service with the use of an ATS surveillance system, within the control area or portion thereof, for which the licence holder is rated.

(2) Before exercising the privileges indicated in paragraph 2.7.3.3(f)(1) of this subsection, the licence holder shall be familiar with all pertinent and current information.

(3) A holder of an ATCO licence and ratings(s) shall not provide instruction in an operational environment unless the licence holder has received proper authorisation from the Authority.

(g) VALIDITY OF RATINGS. A rating shall become invalid when an ATCO has ceased to exercise the privileges of the rating for a period of 6 months. A rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

2.7.4 RATINGS AND ENDORSEMENTS

(a) The rating in an ATC licence indicates the ATC discipline in which a controller may provide an ATC service. Associated with the ratings are rating endorsements, these rating endorsements further define the ATC service that may be provided. For example:

(1) the radar rating endorsements indicate that radar, both primary and secondary, may be used to provide the ATC services associated with the Approach or Area Surveillance ratings;

(2) The Aerodrome Control rating and the Approach and Area Control Procedural rating do not have a rating endorsement associated with them.

(b) The Authority may develop additional rating endorsements to meet their own national requirements.

2.7.4.1 AERODROME CONTROL RATING ENDORSEMENTS

(a) The Aerodrome Control rating shall have associated with it one or more of the following rating endorsements:

(1) TOWER CONTROL

Aerodrome Control may be one operational position or it may have additional operational position which is Ground Movement Control (GMC). Where Aerodrome Control is provided from one operational position it shall be indicated in the ATC licence by the issue of a Tower Control (TWR) endorsement to the Aerodrome Control rating.

(2) GROUND MOVEMENT CONTROL

The Ground Movement Control (GMC) endorsement indicates that the controller has the skills to provide Ground Movement Control.

(b) Recognising GMC as a separate endorsement will enable a controller whose task is restricted to providing GMC only to be issued with an air traffic controller licence with an Aerodrome Control rating.

2.7.4.2 APPROACH CONTROL PROCEDURAL RATING

(a) An Approach Control Procedural (APP) rating entitles the holder to provide an air traffic control service to arriving, departing or transiting aircraft in a control area and/or control zone without the use of surveillance equipment.

(b) The Approach Control Procedural rating may be granted to a controller who is competent to provide an Approach Control service to arriving, departing or transiting aircraft without the use of surveillance equipment.

(c) An Approach Control service may be provided by an Approach Control Unit or an Area Control Centre.

(d) The Approach Control Procedural rating has no associated rating endorsements. However, the Authority may wish to develop their own endorsements to be associated with this rating.

(e) A valid rating shall include a Unit endorsement.

2.7.4.3 APPROACH CONTROL SURVEILLANCE RATING

(a) An Approach Control Surveillance (APS) rating entitles the holder to provide an air traffic control service to arriving, departing or transiting aircraft with the use of surveillance equipment. To be valid, the rating must include either a Radar (RAD), or Automatic Dependent Surveillance (ADS) endorsement.

(b) An Approach Control Surveillance rating may be granted to a controller who is competent to provide an air traffic control service to arriving, departing or transiting aircraft with the use of surveillance equipment.

(c) A valid rating will include a Unit endorsement.

2.7.4.4 APPROACH CONTROL SURVEILLANCE RATING ENDORSEMENTS

(a) RADAR

(1) The radar endorsement indicates that the controller has the skills to provide an approach service with the use of primary and/or secondary radar.

(b) AUTOMATIC DEPENDENT SURVEILLANCE

(i) The Automatic Dependent Surveillance (ADS) endorsement will indicate that the controller has the skills to provide an Approach Control service with the use of ADS.

(ii) An ADS endorsement may be granted to a controller who is competent to provide an air traffic control service to arriving, departing or transiting aircraft with the use of ADS equipment.

(c) TERMINAL CONTROL

(1) KNOWLEDGE

(i) An applicant for a Terminal Control Endorsement shall have successfully completed a course administered by an institution that is recognized by the Authority as being qualified to administer such training and have demonstrated knowledge of the particular geographical area for which the Endorsement is desired through successful completion of written examinations on:

(A) runway layouts at airports within the Terminal Control Area (TCA);

(B) control zone and terminal control area airspace rules and procedures;

(C) co-ordination procedures and airspace agreements between the Terminal Control Unit and other underlying and adjacent air traffic control units;

(D) available electronic aids to navigation and air traffic control;

(E) ATC equipment in the Terminal Control Unit and its operational use;

(F) prominent terrain and landmarks, air navigation aids and ATC facilities within a 50 nautical mile radius beyond the airspace under the jurisdiction of the Terminal Control Unit;

(G) regular aircraft operating characteristics and air traffic flows;

(H) meteorological phenomena peculiar to that Terminal Control Area and adjacent regions;

(I) search and rescue alerting plans and emergency procedures; and

(J) holding, approach, missed approach and departure procedures, including protected airspace configurations.

(2) EXPERIENCE

(i) During the twelve months preceding the issuance of a Terminal Control endorsement, the applicant shall have:

(ii) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training; and

(iii) served under the supervision of a qualified terminal designated instructor for:

(A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence; or

(B) not less than one month in the case of the initial issue of a Terminal Control endorsement to the holder of a licence endorsed with an Approach Control Rating or Area Control Rating.

2.7.4.5 AREA CONTROL PROCEDURAL RATING

(a) An Area Control Procedural (ACP) rating entitles the holder to provide an air traffic control service in control areas without the use of surveillance equipment.

(b) The ACP rating may be granted to controllers who are competent to provide an air traffic control service without the use of any surveillance equipment.

(c) The ACP rating has no associated rating endorsements. However, the Authority may wish to develop their own endorsements to be associated with this rating.

(d) A valid rating shall include a Unit endorsement.

2.7.4.6 AREA CONTROL SURVEILLANCE RATING

(a) An Area Control Surveillance (ACS) rating entitles the holder to provide the air traffic control service in control areas with the use of surveillance equipment. To be valid, the rating must include either a radar, or Automatic Dependent Surveillance (ADS) endorsement.

(b) The Area Control Surveillance (ACS) rating may be granted to a controller who is competent to provide an air traffic control service with the use of surveillance equipment.

(c) A valid rating shall include a Unit endorsement.

2.7.4.7 AREA CONTROL SURVEILLANCE RATING ENDORSEMENTS

(a) RADAR

(1) A radar endorsement indicates that the controller has the skills to provide an air traffic control service in control areas, with the use of surveillance radar equipment.

(2) A radar endorsement may be granted to a controller who is competent to provide an air traffic control service in control areas, with the use of surveillance radar equipment.

(b) AUTOMATIC DEPENDENT SURVEILLANCE

(1) An Automatic Dependent Surveillance (ADS) endorsement entitles the holder to provide an air traffic control service with the use of ADS information.

(2) The ADS endorsement may be granted to a controller who is competent to provide an air traffic control service of the type notified on the rating endorsement with the use of ADS information.

(c) TERMINAL CONTROL

(1) KNOWLEDGE

(i) An applicant for a Terminal Control Endorsement shall have successfully completed a course administered by an institution that is recognized by the Authority as being qualified to administer such training and have demonstrated knowledge of the particular geographical area for which the Endorsement is desired through successful completion of written examinations on:

(A) runway layouts at airports within the Terminal Control Area (TCA);

(B) control zone and terminal control area airspace rules and procedures;

(C) co-ordination procedures and airspace agreements between the Terminal Control Unit and other underlying and adjacent air traffic control units;

(D) available electronic aids to navigation and air traffic control;

(E) ATC equipment in the Terminal Control Unit and its operational use;

(F) prominent terrain and landmarks, air navigation aids and ATC facilities within a 50 nautical mile radius beyond the airspace under the jurisdiction of the Terminal Control Unit;

(G) regular aircraft operating characteristics and air traffic flows;

(H) meteorological phenomena peculiar to that Terminal Control Area and adjacent regions;

(I) search and rescue alerting plans and emergency procedures; and

(J) holding, approach, missed approach and departure procedures, including protected airspace configurations.

(2) EXPERIENCE

(i) During the twelve months preceding the issuance of a Terminal Control endorsement, the applicant shall have:

(ii) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training; and

(iii) served under the supervision of a qualified terminal designated instructor for:

(A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence; or

(B) not less than one month in the case of the initial issue of a Terminal Control endorsement to the holder of a licence endorsed with an Approach Control Rating or Area Control Rating.

2.7.5 DESIGNATED ATCO INSTRUCTOR

2.7.5.1 REQUIREMENTS AND SKILL TEST

(a) AGE. An applicant for a designated ATCO Instructor shall be at least 21 years of age.

(b) MEDICAL. An applicant for a designated ATCO Instructor shall have a Class 3 medical certificate.

(c) GENERAL ELIGIBILITY. An applicant for a designated ATCO Instructor shall:

(1) Hold at least the license and/or class/type ratings as applicable for which examining authority is sought;

(2) Hold at least the instructor rating endorsement for which examining authority is sought or be serving in a comparable position as a check ATCO or comparable position in an Approved Training Organisation;

(3) Have a reputation for integrity and dependability in the industry and the community;

(4) Have a good record as a ATCO in regard to accidents, and violations; and

(5) Have ATCO licence/ratings that have never been revoked for falsification or forgery;

(6) Consistently shown satisfactory performance in the provision of Air Traffic Services.

(d) The ATCO recommended for approval as Instructor shall be known for his / her impartiality, free from prejudices and strong likes and dislikes and capable of recording just and fair assessment.

(e) The ATCO recommended for approval as Instructor shall be capable of instilling high standard of discipline in the profession.

(f) The ATCO once approved as Instructor may be disqualified by Authority if subsequently found lacking in any of the aforesaid qualities. Besides, the Chief of Air Traffic Management and the Chief of ATC Training from the concerned organization may recommend to the Authority the disqualification of an ATCO Instructor giving adequate justification.

(g) In case adequate number of ATCOs meeting fully the criteria laid down in this Part are not available, the Authority may in its discretion enpanel the appropriate skills of several ATCOs to conduct the complete testing of candidates as necessary.

(h) KNOWLEDGE: The applicant for a designated ATCO Instructor shall complete a designated training course in air traffic services and the current ATC ratings in the relevant air traffic control units i.e Tower, Area, approach, Approach Radar and Area Radar, as relevant, for the specific area for which designation is sought.

(i) SKILL TEST. The applicant for a designated ATCO Instructor shall undergo check by Authority nominated Examiner ATCO for proficiency as Instructor ATCO before granting approval.

(j) MAINTAINING CURRENCY. After designation, a designated ATCO Instructor shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority, and

(2) Maintain a current and valid:

(i) ATC licence, and if applicable, class/type ratings appropriate to the designation; and

(ii) Class 3 medical certificate.

(k) PRIVILEGES. Subject to compliance with the requirements specified in this Part, the privileges of the instructor's designation are to give training and evaluation checks for a licence and rating(s) as listed below:

(1) Training of ATCOs for issue and renewal of ATC ratings.

(2) To evaluate and assess the required level of competence of air traffic controllers undergoing On-the-Job Training.

(3) To conduct proficiency checks of ATCOs who already hold the ATC rating;

(4) To monitor performance of ATCOs.

(l) VALIDITY. Subject to compliance with the requirements specified in this Part, the validity period of an Instructor's designation is 3 years from the date of approval unless suspended / withdrawn earlier by the Authority.

(m) RENEWAL.

(1) Renewal will be at the discretion of the Authority.

(2) The renewal for approval of Designated ATCO Instructor shall also be subject to check by the Authority nominated Designated Instructor.

(n) ADDITIONAL DESIGNATIONS. When the Authority deems it necessary for a designated ATCO Instructor to receive additional designations, the designated ATCO Instructor:

(o) Shall meet all the requirements in this Part for the designation.

2.7.5.2 MINIMUM EXPERIENCE REQUIREMENTS

(a) Experience ATCO Instructor:

(1) Total ATC experience of 2 years, having current procedural Tower, Approach or Area Control Centre ratings for approval as Procedural Instructor ATCO;

(2) Total ATC experience of 5 years having Current Radar ratings including proficiency in Radar Data Processing System and Flight Data Processing Systems for automated systems where applicable, for approval as Radar Instructor ATCO.

Note: Other qualifications being equal, preference will be given to the ATCOs who have held the ATC ratings for more than one station.

2.7.6 DESIGNATED ATCO EXAMINERS

2.7.6.1 REQUIREMENTS AND SKILL TEST

(a) AGE. An applicant for a designated ATCO examiner shall be at least 21 years of age.

(b) MEDICAL. An applicant for a designated ATCO examiner shall have a Class 3 medical certificate.

(c) GENERAL ELIGIBILITY. An applicant for a designated ATCO examiner shall:

(1) Hold at least the licence and/or class/type ratings as applicable for which examining authority is sought;

(2) Hold at least the instructor ratings for which examining authority is sought or be serving in a comparable position as a check ATCO or comparable position in an Approved Training Organisation;

(3) Have a reputation for integrity and dependability in the industry and the community**;**

(4) Have a good record as a ATCO and an instructor in regards to accidents, incidents, and violations;

(5) Have air traffic controller licence/ratings that have never been revoked for falsification or forgery;

(6) Consistently shown satisfactory performance in the provision of Air Traffic Services.

(d) The ATCO recommended for approval as Examiner shall be known for his / her impartiality, free from prejudices and strong likes and dislikes and capable of recording just and fair assessment.

(e) The ATCO recommended for approval as Examiner shall be capable of instilling high standard of discipline in the profession.

(f) The ATCO once approved as Examiner may be disqualified by the Authority if subsequently found lacking in any of the aforesaid qualities. Besides, the Chief of Air Traffic Management and the Chief of ATC Training from the concerned organisation may recommend to the Authority the disqualification of an Examiner ATCO giving adequate justification.

(g) In case adequate numbers of ATCOs meeting fully the criteria in this Part are not available, the Authority may in its discretion enpanel the appropriate skills of several ATCOs to conduct the complete testing of candidates as necessary.

(h) KNOWLEDGE: The applicant for a designated ATCO examiner shall complete a designated training course in air traffic services and the current ATC ratings in the relevant air traffic control units i.e Tower, Area, Approach, Approach Radar and Area Radar, as relevant, for the specific area for which designation is sought.

(i) SKILL TEST. The applicant for a designated ATCO examiner shall undergo check by the Authority nominated ATCO examiner for proficiency as ATCO examiner before granting approval.

(j) MAINTAINING CURRENCY. After designation, a designated ATCO examiner shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority, and

(2) Maintain a current and valid:

(i) ATC licence, and if applicable, ratings appropriate to the designation; and

(ii) Class 3 medical certificate.

(k) PRIVILEGES. Subject to compliance with the requirements specified in this Part, the privileges of the examiner's designation are to conduct skill tests and proficiency checks for a licence and rating(s) as listed below;

(i) To conduct skill test for issue and renewal of ATC ratings;

(ii) Training of Instructor / Examiner ATCO candidates; and

(iii) To exercise privileges of an ATCO Instructor.

(l) VALIDITY. Subject to compliance with the requirements specified in this Part, the validity period of an examiner's designation is 3 years from the date of approval unless suspended / withdrawn earlier by the Authority.

(m) RENEWAL.

(1) Renewal will be at the discretion of the Authority.

(2) The renewal for approval of Designated ATCO Examiner shall also be subject to check by the Authority nominated Designated Examiner.

(n) ADDITIONAL DESIGNATIONS. When the Authority deems it necessary for a designated ATCO examiner to receive additional designations, the designated ATCO examiner:

(1) Shall meet all the requirements in this Part for the designation.

2.7.6.2 MINIMUM EXPERIENCE REQUIREMENTS

(a) Experience ATCO Examiner:

(1) Total ATC experience of 5 years, having current procedural Tower, Approach and Area Control Centre ratings for approval as Procedural Examiner ATCO.

(2) Total ATC experience of 8 years and having Current Radar ratings including proficiency in Radar Data Processing System and Flight Data Processing System for automated systems where applicable for approval as Radar Examiner ATCO.

(3) Current Experience as an Instructor ATCO in the relevant ATC unit/s for 2 years at the specific station for which the approval is sought.

Note: Other qualifications being equal, preference will be given to the ATCOs who have held the ATC ratings for more than one station.

2.8 FLIGHT OPERATIONS OFFICER LICENCE, INSTRUCTORS, AND DESIGNATED EXAMINERS

Note: The flight operations officer licence can also be specified as flight dispatcher licence.

2.8.1 APPLICABILITY

(a) This subpart prescribes the requirements for the issue, renewal, and reissue of an FOO licence, instructors for FOO licences, and designation of FOO examiner.

2.8.2 GENERAL

(a) An applicant shall, before being issued an FOO licence, meet such requirements with respect to age, knowledge, experience, skill, medical fitness, and language proficiency as are specified for that licence.

(b) An applicant shall, for renewal or reissue of a licence, meet the requirements as are specified for that licence.

(c) An applicant shall demonstrate the ability to read, write, speak, and understand the language of Curaçao, and English if required by the Authority.

2.8.3 FLIGHT OPERATIONS OFFICER LICENCE

2.8.3.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an FOO licence shall be at least 21 years of age.

(b) KNOWLEDGE. The applicant for an FOO licence shall receive and log training from an authorised instructor on the following subjects appropriate to the privileges of the FOO:

(1) AIR LAW.

(i) Rules and regulations relevant for operational control and to the holder of an FOO licence;
(ii) Appropriate ATS practices and procedures;

(2) AIRCRAFT GENERAL KNOWLEDGE.

(i) Principles of operation of aeroplane powerplants, systems, and instruments;
(ii) Operating limitations of aeroplanes and powerplants;
(iii) MEL and configuration deviation list;

(3) FLIGHT PERFORMANCE CALCULATION, PLANNING PROCEDURES AND LOADING.

(i) Effects of loading and mass distribution on aircraft performance and flight characteristics; mass and balance calculations;
(ii) Operational flight planning; fuel consumption and endurance calculations; alternate aerodrome selection procedures; en route cruise control; extended range operation;
(iii) Take-off performance including field length, climb, and obstacle criteria and limitation;
(iv) Cruise performance including minimum altitudes, decompression/engine out/gear down scenario planning;
(v) Landing performance including approach climb and field length criteria and limitations;
(vi) Preparation and filing of ATS flight plans;

(vii) Basic principles of computer-assisted planning systems;

(4) HUMAN PERFORMANCE.

(i) Human performance relevant to operational control duties, including principles of threat and error management;

(5) METEOROLOGY.

(i) Aeronautical meteorology; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;
(ii) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information;

(6) NAVIGATION.

(i) Principles of air navigation with particular reference to instrument flight;

(7) OPERATIONAL PROCEDURES.

(i) Use of aeronautical documentation and standard operating procedures;
(ii) Operational procedures for the carriage of freight and dangerous goods;
(iii) Procedures relating to aircraft accidents and incidents; emergency flight procedures;
(iv) Procedures relating to unlawful interference and sabotage of aircraft;

(8) PRINCIPLES OF FLIGHT.

(i) Principles of flight relating to the appropriate category of aircraft; and

(9) RADIOTELEPHONY (RT);

(i) Procedures for communicating with aircraft and relevant ground stations.

(c) KNOWLEDGE TESTING. The applicant for an FOO licence shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and
(ii) Certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test.

(d) EXPERIENCE.

(1) The applicant for an FOO licence shall have:

(i) A total of 2 years of service in any one or in any combination of the capacities specified in paragraphs 2.8.3.1(d)(1)(i)(A) to (C) of this subsection, inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least 1 year:

(A) A flight crew member in air transportation; or
(B) A meteorologist in an organisation providing operational control to aircraft in air transportation; or
(C) An ATCO; or a technical supervisor of FOOs or air transportation flight operations systems; or

(ii) At least 1 year as an assistant in the dispatching of air transport; or
(iii) Satisfactorily completed a course of approved training.

(2) The applicant shall have served under the supervision of an FOO for at least 90 working days within the 6 months immediately preceding the application.

(e) SKILL. The applicant shall have demonstrated the ability, by passing a skill test on the areas of operation in the IS 2.3.8.2 for FOO, to:

(1) Identify and to retrieve aeronautical data and other information relevant for the analysis of operational situations and risks;

(2) Identify and evaluate the risk factors and the possible consequences for flight operations;

(3) Identify and evaluate actions considering risk, the effect on flight safety and regularity of the operation;

(4) Determine an appropriate course of action based on the responsibilities and policies described in the OM;

(5) Apply appropriate standard and non-standard procedures from the OM for the initiation, planning, continuation, diversion, or termination of flights in the interest of safety of the aircraft and regularity and efficiency of the operation;

(6) Make an accurate and operationally acceptable weather analysis; provide an operationally valid briefing on weather conditions of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates;

(7) Identify and apply operational limitations and minimums in relation to the weather, aircraft status, and appropriate navigation procedures;

(8) Determine the optimum flight path for a given segment and create accurate manual and/or computer-generated flight plans;

(9) Provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the holder of an FOO licence; and

(10) Recognise and manage threats and errors.

(f) PRIVILEGES. Subject to compliance with the requirements specified in Part 2, the privileges of the holder of an FOO licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the Standards specified in ICAO Annex 6, as contained in Parts 8 and 9 of these regulations.

(g) VALIDITY. The validity period of the licence is 5 years. A licence shall become invalid when an FOO has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the FOO's ability to exercise the privileges of the licence has been re-established.

(h) RENEWAL. The FOO licence may be renewed by presenting to the Authority evidence of successfully passing a competency check on the areas of operation listed in IS 2.8.3.2 for FOO.

(i) RE-ISSUE. If the FOO licence has expired, the applicant shall have received refresher training acceptable to the Authority, and shall pass a skill test on the areas of operation contained in IS 2.8.3.2.

2.8.3.2 SKILL TEST FOR THE FLIGHT OPERATIONS OFFICER LICENCE

(a) The IS 2.8.3.2 contains the list of operations included in the FOO licence skill test.

2.8.4 INSTRUCTORS FOR FLIGHT OPERATIONS OFFICERS

2.8.4.1 REQUIREMENTS FOR THE FLIGHT OPERATIONS OFFICER INSTRUCTOR LICENCE

(a) AGE. An applicant for an FOO instructor licence and rating shall be at least 21 years of age.

(b) KNOWLEDGE.

(1) An applicant for an FOO instructor licence shall have met the instructor requirements in 2.2.6 of Part 2; and

(2) Any additional requirements, as may be specified by the Authority.

(c) EXPERIENCE. The applicant for an FOO instructor licence shall hold at least a current and valid FOO licence and shall have a minimum of 3 years of experience as an FOO.

(d) PRIVILEGES. The privileges of an FOO instructor licence are to give instruction to FOO licence applicants and to endorse those applicants for a knowledge or skill test, as applicable.

(e) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the FOO instructor licence is 2 years.

(f) RENEWAL. An FOO instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that the holder has, within the past 12 months preceding the expiry date:

(1) Conducted at least six exercises in an approved course for an FOO licence; or

(2) Received refresher training acceptable to the Authority.

(g) RE-ISSUE. If the FOO instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.

2.8.5 DESIGNATED EXAMINERS FOR FLIGHT OPERATIONS OFFICERS

2.8.5.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for an FOO examiner shall be at least 23 years of age.

(b) GENERAL ELIGIBILITY. The applicant for an FOO examiner shall:

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for the FOO certification;

(2) Have held an FOO licence for at least 5 years prior to the designation;

(3) Have been actively exercising the privileges of the FOO licence in commercial air transport in the previous 3 years;

(4) Have a good record as an FOO and as a person engaged in the industry and community, with a reputation for honesty and dependability;

(5) Have satisfactorily completed the FOO examiner orientation programme with the Authority; and

(6) Have available a test site that is fully capable of doing all items required for the proper dispatch of a commercial flight in accordance with the regulatory requirements. This may be the Flight Operations Office of an active commercial airline.

2.8.5.2 KNOWLEDGE

(a) The applicant shall have passed a pre-designation test on the following:

(1) Air law and regulations for FOO personnel;

(2) Aircraft knowledge on the aircraft used for testing;

(3) Flight performance calculation and planning procedures;

(4) Human performance;

(5) Meteorology;

(6) Navigation;

(7) Radio communication; and

(8) Recent changes in technology, to include fly-by-wire aircraft systems, GPS navigation, required navigation performance (RNP) requirements, TCAS, ADS-B, and enhanced wind shear systems.

2.8.5.3 SKILL

(a) The Authority will observe the applicant conducting a complete, actual FOO certification using the approved STS in a satisfactory manner.

(b) The applicant shall complete all required paperwork for the certification as required by the Authority.

2.8.5.4 CURRENCY

(a) After designation, an FOO examiner shall maintain currency by:

(1) Attending initial and recurrent training conducted by the Authority; and

(2) Maintaining a current and valid FOO licence.

(b) The FOO examiner shall conduct at least six (6) skill tests during any 12-calendar-month period in order for the designation to remain current.

(c) The FOO examiner shall be observed by the Authority in the conduct of a skill test at least once every 12 calendar months.

2.8.5.5 PRIVILEGES

(a) The FOO examiner may conduct skill tests for the FOO licence in accordance with approved STS standards.

(b) The FOO examiner may conduct or monitor any portion of a computerised knowledge test.

2.8.5.6 VALIDITY

(a) The FOO examiner licence shall be valid for 3 years.

2.8.5.7 RENEWAL

(a) The FOO examiner designation may be renewed by the Authority if:

(1) The need for the designation remains valid; and

(2) The performance of the examiner has been satisfactory.

2.9 AERONAUTICAL METEOROLOGICAL PERSONNEL

The requirements for qualifications, competencies, education, and training for all aeronautical meteorological personnel are the responsibility of the World Meteorological Organization (WMO), in accordance with ICAO Doc 7475, *Working Arrangements Between the International Civil Aviation Organization and the World Meteorological Organization*. The requirements can be found in the Technical Regulations (WMO-No. 49), Volume I, *General Meteorological Standards and Recommended Practices*, Part V, Qualifications and Competencies of Personnel Involved in the Provision of Meteorological (Weather and Climate) and Hydrological Services; Part VI, Education and Training of Meteorological Personnel; and Appendix A, Basic Instruction Packages.

2.10 PARACHUTE RIGGER LICENCES, INSTRUCTORS, AND DESIGNATED PARACHUTE RIGGER EXAMINERS

2.10.1 GENERAL

2.10.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for issuance of PR licence and ratings, and the conditions under which those licences and ratings are necessary.

2.10.1.2 ELIGIBILITY REQUIREMENTS: GENERAL

(a) To be eligible for a PR licence, a person shall:

(b) Be at least 18 years of age;

(1) Be able to read, speak, write, and understand the language of Curaçao, and English if required by the Authority; and

(2) Comply with the sections of this subpart that apply to the licence and type rating sought.

2.10.1.3 LICENCE REQUIRED

(a) No person may pack, maintain, or modify any personnel-carrying parachute intended for emergency use in connection with civil aircraft of Curaçao unless he or she holds an appropriate current licence and type rating issued under this subpart and complies with this subpart.

(b) Except as allowed by paragraph 2.10.1.3(c) of this subsection, no person may pack, maintain, or modify any main parachute of a dual parachute pack to be used for intentional jumping from a civil aircraft of Curaçao unless he or she has an appropriate valid licence issued under this subpart.

(c) A person who does not hold a licence may pack the main parachute of a dual parachute pack that is to be used by that person for intentional jumping.

(d) Each person who holds a PR licence shall present it for inspection upon the request of the Authority or an authorised representative of the Director General office, or any Federal, State, or local law enforcement officer.

(e) The following PR licences are issued under Part 2:

(1) Senior PR

(2) Master PR

(f) Subsections 2.10.1.9 through 2.10.1.12 of Part 2 do not apply to parachutes packed, maintained, or modified for the use of the armed forces.

2.10.1.4 SENIOR PARACHUTE RIGGER LICENCE – EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS

(a) The applicant for a senior PR licence shall:

(1) Present evidence satisfactory to the Authority that he or she has packed at least 20 parachutes of each type for which he or she seeks a rating, in accordance with the manufacturer's instructions and under the supervision of a licensed PR holding a rating for that type or a person holding an appropriate military rating;

(2) Pass a knowledge test, with respect to a parachute applicable to at least one type of parachute appropriate to the type rating sought, on:

(i) The construction, packing, and maintenance;

(ii) The manufacturer's instructions; and

(iii) The regulations of this subpart; and

(3) Pass a skill test showing the ability to pack and maintain at least one type of parachute appropriate to the type rating sought.

(b) Requirements for the skill test are contained in the IS 2.10.1.4 for parachute rigger.

2.10.1.5 MASTER PARACHUTE RIGGER LICENCE – EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS

(a) An applicant for a master PR licence shall meet the following requirements:

(1) Present evidence satisfactory to the Authority of at least 3 years of experience as a PR and having satisfactorily packed at least 100 parachutes of each of two types appropriate to type ratings held, in accordance with the manufacturer's instructions:

(i) While a licensed and appropriately rated senior PR; or

(ii) While under the supervision of a licensed and appropriately rated PR or a person holding appropriate military ratings;

(iii) An applicant may combine experience specified in paragraphs 2.10.1.5(a)(1)(i) and (ii) of this subsection to meet the requirements of this subsection;

(2) If the applicant is not the holder of a senior PR licence, pass a knowledge test with respect to parachutes appropriate to the type rating sought, on:

(i) Their construction, packing, and maintenance;

(ii) The manufacturer's instructions; and

(iii) The regulations of this subpart.

(3) Pass a skill test showing the ability to pack and maintain two types of parachutes appropriate to the type ratings sought.

(b) Requirements for the skill test are contained in the IS 2.10.1.5 for parachute rigger.

2.10.1.6 TYPE RATINGS

(a) The following type ratings are issued under this subpart:

(1) Seat

(2) Back

(3) Chest

(4) Lap

(b) The skill test requirements for a type rating are contained in the IS 2.10.1.6 for PR.

(c) The holder of a senior PR licence who qualifies for a master PR licence is entitled to have placed on the master PR licence the ratings that were on the senior PR licence.

2.10.1.7 ADDITIONAL TYPE RATINGS REQUIREMENTS

(a) A licensed PR who applies for an additional type rating shall:

(1) Present evidence satisfactory to the Authority of having packed at least 20 parachutes of the type rating sought, in accordance with the manufacturer's instructions and under the supervision of a licensed PR holding a rating for that type or a person holding an appropriate military rating; and

(2) Pass a skill test, to the satisfaction of the Authority, showing the ability to pack and maintain the type of parachute for which the applicant seeks a rating.

2.10.1.8 PRIVILEGES

(a) A licensed senior PR may:

(1) Pack or maintain (except for major repair) any type of parachute for which the licensed senior PR is rated; and

(2) Supervise other persons in packing any type of parachute for which the licensed senior PR is rated.

(b) A licensed master PR may:

(1) Pack, maintain, or modify any type of parachute for which the licensed master PR is rated; and

(2) Supervise other persons in packing, maintaining, or modifying any type of parachute for which the licensed master PR is rated.

(c) A licensed PR need not comply with 2.10.1.9 through 2.10.1.12 of Part 2 (related to facilities, equipment, performance standards, records, recent experience, and seal) in packing, maintaining, or modifying (if authorised) the main parachute of a dual parachute pack to be used for intentional jumping.

2.10.1.9 FACILITIES AND EQUIPMENT

(a) A licensed PR shall not exercise the privileges of his licence unless he or she has at least the following facilities and equipment available:

(1) A smooth top table at least 1 m wide by 10 m long;

(2) Suitable housing that is adequately heated, lighted, and ventilated for drying and airing parachutes;

(3) Enough packing tools and other equipment to pack and maintain the types of parachutes serviced; and

(4) Adequate housing facilities to perform applicable duties and to protect tools and equipment.

2.10.1.10 PERFORMANCE STANDARDS AND RECENCY REQUIREMENTS

(a) A licensed PR shall not:

(1) Pack, maintain, or modify any parachute unless he or she is rated for that type;

(2) Pack a parachute that is not safe for emergency use;

(3) Pack a parachute that has not been thoroughly dried and aired;

(4) Modify a parachute in a manner that is not specifically authorised by the Authority or the manufacturer;

(5) Pack, maintain, or modify a parachute in any manner that deviates from procedures approved by the Authority or the manufacturer of the parachute; or

(6) Exercise the privileges of the licence and type rating unless he or she understands the current manufacturer's instructions for the operation involved and has:

(i) Performed duties under the licence for at least 90 days within the preceding 12 months; or

(ii) Shown to the Authority the ability to perform those duties.

2.10.1.11 RECORDS

(a) Each licensed PR shall keep a record of the packing, maintenance, and modification of parachutes or the supervision of those activities.

(b) Each licensed PR who packs a parachute shall enter, on the parachute packing record attached to the parachute, the date and place of the packing and a notation of any defects found during any inspection, and shall sign that record with that licensed PR's name and licence number.

(c) The record required by paragraph 2.10.1.11(a) of this subsection shall contain, with respect to each

parachute worked on, a statement of the:

(1) Type and make;

(2) Serial number;

(3) Name and address of its owner or user;

(4) Kind and extent of the work performed;

(5) Date when and the place where the work was performed; and

(6) Results of any drop tests made with it.

(d) Each person who makes a record under paragraph 2.10.1.11(a) of this subsection shall keep it for at least 2 years after the date it is made.

2.10.1.12 SEAL

(a) Each licensed PR shall have a seal with an identifying mark prescribed by the Authority, and a seal press.

(b) After packing a parachute, the PR shall seal the pack with that PR's seal in accordance with the manufacturer's recommendation for that type of parachute.

2.10.1.13 DURATION OF PARACHUTE RIGGER LICENCE

(a) VALIDITY. The validity period of the licence is 5 years. A licence shall become invalid when a PR has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the PRs ability to exercise the privileges of the licence has been re-established.

(b) RENEWAL. A PR licence that has not expired may be renewed for an additional 5 years if the holder presents to the Authority evidence that the holder, within the past 6 months preceding the expiry date:

(1) Been actively engaged in the duties of a PR; or

(2) Received refresher training acceptable to the Authority.

(c) RE-ISSUE. If the PR licence has expired, the applicant shall have received refresher training acceptable to the Authority and shall pass a skill test on the areas of operation in the IS 2.10.1.13 for parachute rigger, as applicable to the licence and ratings to be renewed.

2.10.1.14 DISPLAY OF LICENCE

(a) Each person who holds a PR licence shall keep it within the immediate area where that person normally exercises the privileges of the licence and shall present it for inspection upon the request of the Authority or an authorised representative of the Director General office, or any Federal, State, or local law enforcement officer.

2.10.2 PARACHUTE RIGGER INSTRUCTOR REQUIREMENTS

2.10.2.1 REQUIREMENTS FOR A PARACHUTE RIGGER INSTRUCTOR LICENCE

(a) AGE. The applicant for a PR instructor licence and rating shall be at least 21 years of age.

(b) KNOWLEDGE.

(1) The applicant for a PR instructor licence shall have met the instructor requirements in 2.2.6 of Part 2; and

(2) Any additional requirements as may be specified by the Authority.

(c) EXPERIENCE. The applicant for a PR instructor licence shall hold at least a current and valid PR licence and ratings applicable to the instructor licence sought and shall have a minimum of 3 years

of experience as a PR.

(d) PRIVILEGES. The privileges of a PR instructor licence and rating are to give instruction to PR licence applicants and to endorse those applicants for a knowledge or skill test, as applicable.

(e) VALIDITY. Subject to compliance with the requirements specified in Part 2, the validity period of the PR instructor licence is 2 years.

(f) RENEWAL. A PR instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he or she has, within the past 12 months preceding the expiry date:

(1) Conducted at least six exercises in an approved course for a PR licence; or

(2) Received refresher training acceptable to the Authority.

(g) RE-ISSUE. If the PR instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.

2.10.3 DESIGNATED PARACHUTE RIGGER EXAMINER REQUIREMENT

2.10.3.1 GENERAL REQUIREMENTS

(a) AGE. The applicant for a DPRE licence shall be at least 23 years of age.

(b) GENERAL ELIGIBILITY. The applicant for a DPRE licence shall:

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for the DPRE certification;

(2) Have held a DPR licence for at least 5 years prior to the designation;

(3) Have been actively exercising the privileges of the DPR for the previous 3 years;

(4) Have a good record as a DPR and as a person engaged in the industry and community with a reputation for honesty and dependability;

(5) Have satisfactorily completed the DPRE orientation programme with the Authority;

(6) Have a fixed base of operation adequately equipped for all practical subject areas to return to service condition;

(7) Have at the fixed base of operation adequate equipment to test the tasks in each area of operation listed in the STS; and

(8) Have the tools, equipment, current publications, and materials required to complete a project assignment as recommended by the parachute manufacturer or industry standards.

2.10.3.2 KNOWLEDGE

(a) The applicant for a DPRE licence shall have passed a pre-designation test on the following:

(1) Air law and regulations for DPR personnel;

(2) Packing and maintaining a wide variety of parachutes;

(3) Modifications of parachutes in accordance with manufacturers and industry standards

(4) Proper use of seals for identification purposes; and

(5) Proper record keeping requirements.

2.10.3.3 SKILL

(a) The Authority will observe the applicant conducting a complete actual senior PR or master PR certification using the approved IS 2.10.3.3 in a satisfactory manner.

(b) The applicant shall complete all required paperwork for the certification as required by the Authority.

2.10.3.4 CURRENCY

(a) After designation, a DPRE shall maintain currency by:

(1) Attending initial and recurrent training conducted by the Authority; and

(2) Maintaining a current and valid PR licence and applicable ratings.

(b) The DPRE shall conduct at least 6 skill tests during any 12-calendar-month period in order for the designation to remain current.

(c) The DPRE shall be observed by the Authority in the conduct of a skill test at least once every 12 calendar months.

2.10.3.5 PRIVILEGES

(a) The DPRE may conduct skill tests for the senior parachute rigger and master parachute rigger licence in accordance with approved IS 2.10.3.5.

(b) The DPRE may conduct or monitor any portion of a computerised knowledge test.

2.10.3.6 VALIDITY

(a) The DPRE designation shall be valid for 3 years.

2.10.3.7 RENEWAL

(a) The DPRE designation may be renewed by the Authority if:

(1) The need for the designation remains valid;

(2) The performance of the DPRE has been satisfactory; and

(3) The DPRE has attended the DPRE seminar conducted by the Authority in the previous 12-month period.

2.11 MEDICAL PROVISIONS FOR LICENSING

2.11.1 GENERAL

2.11.1.1 APPLICABILITY

(a) This subpart prescribes the requirements and procedures for issuing, renewing, and reissuing Class 1, Class 2, and Class 3 medical certificates.

(b) The medical assessment process of licence holders shall include basic safety management principles in its:

(1) Routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and

(2) Continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

(c) The Authority will implement appropriate aviation-related health promotion for licence holders subject to a medical assessment to reduce future medical risks to flight safety.

Note: Paragraph 2.11.1.1(b) of Part 2 indicates how appropriate topics for health promotion activities may be determined.

2.11.1.2 MEDICAL FITNESS

(a) The applicants for a flight crew licence or ATCO licence or, as of 03 November 2022, remote flight crew members, shall hold a medical certificate issued in accordance with Part 2.

(b) Until 02 November 2022, except as provided in Part 2, flight crew members and ATCOs shall not exercise the privileges of their licence unless they hold a current medical certificate appropriate to the licence.

(c) As of 03 November 2022, except as provided in Part 2, flight crew members, remote flight crew members, and ATCOs shall not exercise the privileges of their licence unless they hold a current medical certificate appropriate to the licence.

2.11.1.3 CIVIL AVIATION MEDICAL EXAMINERS (CAME'S)

(a) Subject to compliance with the requirements specified in Part 2, the Authority may designate qualified and licensed physicians in the practice of medicine to be authorised as CAMEs and to conduct medical examinations of fitness of applicants for the issue, renewal, or reissue of the licences or ratings specified in Part 2. CAMEs may be designated outside of Curaçao.

(b) CAMEs shall have had, or shall receive, initial and recurrent training in aviation medicine. Initial training shall include;

(1) Basic training in aviation medicine for Class 2 and 3 medical examinations on the subjects prescribed in IS 2.11.1.3(a); and

(2) Advanced training in aviation medicine for Class 1 medical examinations on the subjects prescribed in IS 2.11.1.3(a).

(c) CAMEs shall acquire knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.

Note: Examples of practical knowledge and experience are flight experience, simulator experience, on-site observation, or any other hands-on experience deemed by the Authority to meet this requirement.

(d) The CAME shall be required to submit sufficient information to the Authority to enable the Authority to undertake medical certificate audits.

Note: The purpose of such auditing is to ensure that medical examiners meet applicable standards for good medical practice and aeromedical risk assessment. Guidance on aeromedical risk assessment is contained in ICAO Doc 8984, Manual of Civil Aviation Medicine.

(e) The authorisation of an CAME is valid for 3 years. The CAME shall have completed at least 10 examinations for a medical certificate per year. Renewal of the AME designation will be at the discretion of the Authority.

(f) Having completed the medical examination of an applicant in accordance with 2.11 of Part 2, the CAME shall submit a signed report to the Authority, detailing the results of the examination. When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials of the Licensing Authority.

(g) If the medical examination is carried out by a constituted group of CAMEs, the head of the group will be appointed by the Authority, which will be responsible for coordinating the results of the examination and signing the report.

Note: If the medical report is submitted to the Authority in electronic format, adequate identification of the examiner shall be established.

(h) The Authority retains the right to reconsider any action of an CAME.

(i) The CAME shall respect medical confidentiality at all times.

(j) The CAME shall securely hold all medical reports and records with accessibility restricted to authorised personnel.

2.11.1.4 CIVIL AVIATION MEDICAL EXAMINATIONS

(a) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the medical examiner a declaration stating whether they have previously undergone such an examination and, if so, the date, place, and results of the last examination.

(b) The applicant shall indicate to the medical examiner whether a medical certificate has previously been refused, revoked, or suspended and, if so, the reason for such refusal, revocation, or suspension.

(c) Each applicant for a medical certificate shall provide the medical examiner with a personally certified statement of medical facts concerning personal, familial, and hereditary history.

(d) Each applicant for a medical certificate shall produce proof of identification as specified in paragraph 2.2.5.5(c) of Part 2.

(e) Any false declaration made to a medical examiner by an applicant for a licence or rating shall be reported to the Authority for such action as may be considered appropriate.

(f) The applicant shall complete the appropriate application form as prescribed by the Authority.

2.11.1.5 SPECIAL CIRCUMSTANCES

(a) If the medical requirements prescribed in Part 2 for a particular licence are not met, the appropriate medical certificate will not be issued, renewed, or reissued unless the following conditions are fulfilled:

(1) An accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardise flight safety;

(2) Operational conditions and the relevant ability, skill, and experience of the applicant have been given due consideration; and

(3) The licence is endorsed by the Authority with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.

(b) The CAME shall report to the Authority any individual case where, in the CAME's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardise flight safety.

2.11.1.6 DECREASE OF MEDICAL FITNESS

(a) Holders of licences provided for in Part 2 shall not exercise the privileges of their licences and related ratings at any time when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise these privileges.

2.11.1.7 USE OF PSYCHOACTIVE SUBSTANCES

(a) Holders of licences provided for in Part 2 shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.

(b) Holders of licences provided for in Part 2 shall not engage in any problematic use of substances.

2.11.1.8 MEDICAL CERTIFICATE

(a) THE MEDICAL CERTIFICATE.

(1) The medical certificate shall be:

(i) Issued in a form and manner prescribed by the Authority; and

(ii) Carried in the possession of the personnel licence holder at all times while exercising the privileges of a personnel licence.

(2) The items required on the medical certificate are prescribed in IS 2.11.1.8.

(b) ISSUE OF MEDICAL CERTIFICATES.

(1) A medical certificate will be issued to any applicant who meets the medical requirements prescribed in this subpart, based on medical examination and evaluation of the applicant's history and condition.

(i) The issue of the Class 1 medical certificate may be specifically delegated to an AME.

(ii) The issue of Class 2 and Class 3 medical certificates may be delegated to any authorised AME.

(2) Each applicant for a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this subpart.

(3) Any applicant who does not meet the medical requirements of this subpart may apply for the discretionary issuance of a certificate under 2.11.1.5 of this part.

(c) VALIDITY.

(1) The validity period of the medical certificate shall be:

(i) 12 months for the Class 1 for the CPL, MPL, and ATPL;

(ii) 12 months for the Class 2 for the FE and FN licences;

(iii) 60 months for the Class 2 for the PPL;

(iv) 48 months for the Class 3 for the ATCO licence; and

(v) 48 months for an RPL – aeroplane, airship, glider, rotorcraft, powered-lift, or free balloon.

(2) The exceptions for the validity period of the medical certificate are:

(i) When holders have passed their 40th birthday:

(A) The 12-month interval specified for the holder of a CPL or an ATPL who is engaged in carrying passengers in single-pilot commercial air transport operations shall be reduced to 6 months; and

(B) The 60-month interval specified for the PPL and the 48-month interval specified for the RPL and the ATCO licence shall be reduced to 24 months.

(ii) When holders have passed their 50th birthday, the 24-month interval specified for the PPL, the RPL, and the ATCO licence shall be reduced to 12 months.

(iii) When holders have passed their 60th birthday, the 12-month interval specified for the holder of a CPL, an MPL, or an ATPL who is engaged in commercial air transport operations shall be reduced to 6 months.

(3) For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. The period of validity shall, for the last month counted, include the day that has the same calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.

(4) The period of validity of a medical certificate may be extended up to 45 days at the discretion of the Authority.

Note: It is advisable to let the calendar day on which the medical certificate expires remain constant year after year by allowing the expiry date of the current medical certificate to be the beginning of the new

validity period under the proviso that the medical examination takes place during the period of validity of the current medical certificate but no more than 45 days before it expires.

(5) The period of validity of a medical certificate may be reduced when clinically indicated.

(d) RENEWAL OR REISSUE OF A MEDICAL CERTIFICATE.

(1) The requirements to be met for the renewal or reissue of a medical certificate are the same as those for the initial certificate except where otherwise specifically stated.

(2) The renewal of the Class 1, 2, and 3 medical certificates may be delegated to the AME.

(3) The reissue of the Class 1 medical certificate will be either done by the Authority or specifically delegated to an AME.

(4) Reissue of the Class 2 and 3 medical certificates may be delegated to an AME.

(e) LIMITATION OR DENIAL.

(1) The Authority may, for medical reasons justified and notified to the applicant, limit or deny a medical certificate.

(f) SUSPENSION OR REVOCATION OF A MEDICAL CERTIFICATE.

(1) The Authority may, in accordance with 2.2.9 of this part, suspend or revoke a medical certificate issued, if it is established that an applicant or a certificate holder has not met, or no longer meets, the requirements of this part.

2.11.1.9 MEDICAL ASSESSOR

(a) The CAA medical assessor will periodically evaluate the competence of each CAME.

(b) The Authority will use the services of physicians experienced in the practice of aviation medicine when it is necessary to evaluate reports submitted to the Authority by medical examiners.

2.11.2 MEDICAL REQUIREMENTS

2.11.2.1 GENERAL

(a) An applicant for a medical certificate issued in accordance with Part 2 shall undergo a medical examination based on the following requirements:

(1) Physical and mental;

(2) Visual and colour perception; and

(3) Hearing.

2.11.2.2 PHYSICAL AND MENTAL REQUIREMENTS

(a) An applicant for any class of medical certificate shall be required to be free from:

(1) Any abnormality, congenital or acquired; or

(2) Any active, latent, acute, or chronic disability; or

(3) Any wound, injury, or sequelae from operation; or

(4) Any effect or side effect of any prescribed or non-prescribed therapeutic medication taken; such as would entail a degree of functional incapacity that is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

(b) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating

privileges.

2.11.2.3 VISUAL ACUITY TEST REQUIREMENTS

(a) Visual acuity tests shall be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30–60 cd/m²).

(b) Visual acuity shall be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

2.11.2.4 COLOUR PERCEPTION REQUIREMENTS

(a) The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.

(b) The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature, such as that provided by CIE standard illuminants C or D65 as specified by the CIE.

(c) An applicant obtaining a satisfactory result as prescribed by the Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the following restriction: valid daytime only.

2.11.2.5 HEARING TEST REQUIREMENTS

(a) Applicants shall be required to demonstrate hearing performance sufficient for the safe exercise of their licence and rating privileges.

(b) The hearing test may be conducted using a pure-tone audiometer or alternate method that will provide equivalent results. This test shall be performed at the first medical examination and then at specified intervals according to the class of medical examination and the age of the applicant.

(c) If a pure-tone audiometer is used for the hearing test, the reference zero for calibration shall be that of the ISO Recommendation R389, 1964.

(d) For hearing tests where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests under the following conditions:

(1) A quiet room is a room in which the intensity of the background noise is less than 35 dB(A) when measured on “slow” response of an “A”-weighted sound level meter.

(2) The sound level of an average conversational voice at 1 m from the point of output is 60 dB(A) and that of a whispered voice is 45 dB(A). At 2 m from the speaker, the sound is 6 dB(A) lower.

(e) The holder of a PPL with an IR shall meet the hearing requirements for the Class 1 medical certificate.

2.11.2.6 CLASS 1 MEDICAL CERTIFICATE

(a) CERTIFICATE ISSUE AND RENEWAL.

(1) The level of medical fitness to be met for the renewal of a Class 1 medical certificate shall be the same as that for the initial assessment except where otherwise specifically stated.

(2) An applicant for a CPL, an MPL, or an ATPL shall undergo an initial medical examination for the issue of a Class 1 medical certificate.

(3) Except where otherwise stated in this subpart, the holder of a CPL, an MPL, or an ATPL shall have his or her Class 1 medical certificate renewed at intervals not exceeding those specified

below.

(4) A Class 1 medical certificate will be issued when the applicant complies with the requirements of Part 2;

(b) PHYSICAL AND MENTAL REQUIREMENTS.

(1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioural disorder, due to the use of psychoactive substances, that induces dependence syndrome induced by alcohol or other psychoactive substances;

(iii) Schizophrenia or a schizotypal or delusional disorder;

(iv) A mood (affective) disorder;

(v) A neurotic, stress-related, or somatoform disorder;

(vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(x) A mental disorder not otherwise specified.

(3) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or nonprogressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(4) An applicant who has suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges, shall be assessed as unfit.

(5) An applicant shall not possess any abnormality of the heart, congenital or acquired, that is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(6) An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(7) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with the safe exercise of the applicant's licence or rating privileges.

(8) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate.

(9) Electrocardiography shall be included in reexamination of applicants over the age of 50 at least annually.

Note: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

(10) The systolic and diastolic blood pressures shall be within normal limits.

(11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges.

Note: Extensive guidance on the subject is published in ICAO Doc 8984, Manual of Civil Aviation Medicine*.*

(12) There shall be no significant functional or structural abnormality of the circulatory system.

(13) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum, or pleura likely to result in incapacitating symptoms during normal or emergency operations.

(14) Radiography shall form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(15) An applicant with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(16) An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(17) The use of drugs for control of asthma shall be disqualifying except for those drugs the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(18) An applicant with active pulmonary tuberculosis shall be assessed as unfit.

(19) An applicant with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

(20) An applicant with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

(21) An applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.

(22) An applicant with sequela of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacity in flight, in particular, any obstructions due to stricture or compression, shall be assessed as unfit.

(23) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the medical authority designated for the purpose by Curaçao and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

(24) An applicant with metabolic, nutritional, or endocrine disorders likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

(25) An applicant with insulin-treated diabetes mellitus shall be assessed as unfit.

(26) An applicant with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(27) An applicant with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and the applicant's condition is found unlikely to interfere

with the safe exercise of the applicant's licence and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(28) An applicant with renal or genitourinary disease shall be assessed as unfit unless adequately investigated and the applicant's condition is found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(29) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

(30) An applicant with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular, any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(31) An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(32) An applicant who is seropositive for HIV shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

(33) An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy. The fit assessment period may be limited from the end of the 12th week until the end of the 26th week of gestation

(34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.

(35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons, or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Any sequelae after lesions affecting the bones, joints, muscles, or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(36) The applicant shall not possess any abnormality or disease of the ear or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(37) There shall be:

(i) No disturbance of vestibular function;

(ii) No significant dysfunction of the Eustachian tubes; and

(iii) No unhealed perforation of the tympanic membranes.

(38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

(39) There shall be no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(40) An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) VISUAL REQUIREMENTS.

(1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or

their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each reexamination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury, or eye surgery.

(3) An applicant may use contact lenses to meet the requirement of paragraph 2.11.2.6(c)(2) of this subsection, provided that:

(i) The lenses are monofocal and non-tinted;

(ii) The lenses are well tolerated; and

(iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

(4) An applicant with a large refractive error shall use contact lenses or high-index spectacle lenses.

Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

(5) An applicant whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to the initial medical certificate and every 5 years thereafter.

Note: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

(6) An applicant who has undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless the applicant is free from those sequelae which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(7) An applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: Any applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.

Note 2: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.

(8) When near correction is required in accordance with paragraph 2.11.2.6(c) of this subsection, a second pair of near-correction spectacles shall be kept available for immediate use.

(9) The applicant shall be required to have normal fields of vision.

(10) The applicant shall be required to have normal binocular function.

(11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.

(d) HEARING REQUIREMENTS.

(1) The applicant shall be tested by pure-tone audiometry:

(i) At the initial medical examination;

(ii) At least once every 5 years up to the age of 40 years; and

(iii) At least once every 3 years after the age of 40 years.

(2) An applicant shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000, or 2000 Hz, or more than 50 dB at 3 000 Hz. However, an applicant with a hearing loss greater than the above may be declared fit provided that:

(i) The applicant has a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate the masking properties of flight deck noise upon speech and beacon signals; and

(ii) The applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner.

(3) Alternatively, a practical hearing test conducted in flight in the flight deck of an aircraft of the type for which the applicant's licence and ratings are valid may be used.

2.11.2.7 CLASS 2 MEDICAL CERTIFICATE

(a) CERTIFICATE ISSUE AND RENEWAL.

(1) An applicant for a PPL, an FE, or an FN licence shall undergo an initial medical examination for the issue of a Class 2 medical certificate.

(2) Except where otherwise stated in this subpart, holders of a PPL, an FE, or an FN licence shall have their Class 2 medical certificate renewed at intervals not exceeding those specified in this subpart.

(3) A Class 2 medical certificate will be issued when the applicant complies with the requirements of Part 2.

(b) PHYSICAL AND MENTAL REQUIREMENTS.

(1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioural disorder due to the use of psychoactive substances; this

includes dependence syndrome induced by alcohol or other psychoactive substances;

(iii) Schizophrenia or a schizotypal or delusional disorder;

(iv) A mood (affective) disorder;

(v) A neurotic, stress-related, or somatoform disorder;

(vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(x) A mental disorder not otherwise specified.

(3) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(4) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or nonprogressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(5) An applicant who has suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges, shall be assessed as unfit.

(6) The applicant shall not possess any abnormality of the heart, congenital or acquired, that is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(7) An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(8) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate:

(i) After the age of 40; and

(ii) In reexaminations every 2 years after the age of 50.

Note: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

(10) The systolic and diastolic blood pressures shall be within normal limits.

(11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges.

(12) There shall be no significant functional or structural abnormality of the circulatory system.

(13) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum, or pleura likely to result in incapacitating symptoms during normal or emergency operations.

(i) Radiography shall form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(14) An applicant with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(15) An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(16) The use of drugs for control of asthma shall be disqualifying except for those drugs the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(17) An applicant with active pulmonary tuberculosis shall be assessed as unfit.

(18) An applicant with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

(19) An applicant with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.

(20) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.

(21) An applicant with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression, shall be assessed as unfit.

(22) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs, shall be assessed as unfit until such time as the medical authority designated for the purpose by Curaçao and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

(23) An applicant with metabolic, nutritional, or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

(24) An applicant with insulin-treated diabetes mellitus shall be assessed as unfit.

(25) An applicant with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(26) An applicant with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and the condition is found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(27) An applicant with renal or genitourinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(28) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

(29) An applicant with sequelae of disease or surgical procedures on the kidneys or the

genitourinary tract, in particular, any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(30) An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(31) An applicant who is seropositive for HIV shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

(32) An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.

(33) For an applicant with a low-risk, uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 2.11.2.7(b)(32) of this subsection, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

(34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.

(35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(36) The applicant shall not possess any abnormality or disease of the ear or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(37) There shall be:

(i) No disturbance of vestibular function;

(ii) No significant dysfunction of the Eustachian tubes; and

(iii) No unhealed perforation of the tympanic membranes.

(38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

(39) There shall be no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(40) An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) VISUAL REQUIREMENTS.

(1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(2) Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(i) Such correcting lenses are worn during the exercise of the privileges of the licence or

rating applied for or held; and

(ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each reexamination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

(3) An applicant may use contact lenses to meet the requirement of paragraph 2.11.2.7(c)(2) of this subsection provided that:

(i) The lenses are monofocal and non-tinted;

(ii) The lenses are well tolerated; and

(iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

(4) An applicant with a large refractive error shall use contact lenses or high-index spectacle lenses.

Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

(5) An applicant whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to the initial medical certificate and every 5 years thereafter.

Note: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

(6) An applicant who has undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless the applicant is free from those sequelae which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(7) An applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: Any applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.

Note 2: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.

(8) When near correction is required in accordance with paragraph 2.11.2.7(c) of this subsection, a second pair of near-correction spectacles shall be kept available for immediate use.

(9) The applicant shall be required to have normal fields of vision.

(10) The applicant shall be required to have normal binocular function.

(11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.

(d) HEARING REQUIREMENTS.

(1) The applicant shall be tested by pure-tone audiometry:

(i) At the initial medical examination; and

(ii) At least once every 2 years after the age of 50 years.

(2) When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000, or 2 000 Hz, or more than 50 dB at 3 000 Hz, shall be assessed as unfit.

(3) The applicant shall have the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner, or be assessed as unfit.

(4) The applicant who holds a PPL with an IR shall meet the hearing requirements for a Class 1 medical certificate.

2.11.2.8 CLASS 3 MEDICAL CERTIFICATE

(a) Certificate issue and renewal.

(1) An applicant for an ATCO licence or, as of 03 November 2022, an RPL shall undergo an initial medical examination for the issue of a Class 3 medical certificate.

(2) Except where otherwise stated in this subpart, holders of ATCO licences or RPLs shall have their Class 3 medical certificate renewed at intervals not exceeding those specified in this subpart.

(3) A Class 3 medical certificate will be issued when the applicant complies with the requirements of Part 2.

(b) Physical and mental requirements.

(1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioural disorder due to the use of psychoactive substances; this includes dependence syndrome induced by alcohol or other psychoactive substances;

(iii) Schizophrenia or a schizotypal or delusional disorder;

(iv) A mood (affective) disorder;

(v) A neurotic, stress-related, or somatoform disorder;

(vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(x) A mental disorder not otherwise specified.

(3) An applicant with depression, being treated with antidepressant medication, shall be

assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(4) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or nonprogressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(5) An applicant who has suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges, shall be assessed as unfit.

(6) The applicant shall not possess any abnormality of the heart, congenital or acquired, that is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(7) An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(8) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate and in reexaminations every 2 years after the age of 50.

Note: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

(10) The systolic and diastolic blood pressures shall be within normal limits.

(11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, is compatible with the safe exercise of the applicant's licence and rating privileges.

(12) There shall be no significant functional or structural abnormality of the circulatory system.

(13) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum, or pleura likely to result in incapacitating symptoms during normal or emergency operations. Radiography shall form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(14) An applicant with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(15) An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(16) The use of drugs for control of asthma shall be disqualifying except for those drugs the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(17) An applicant with active pulmonary tuberculosis shall be assessed as unfit.

(18) An applicant with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

(19) An applicant with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.

(20) An applicant with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression, shall be assessed as unfit.

(21) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the medical authority designated for the purpose by Curaçao and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

(22) An applicant with metabolic, nutritional, or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

(23) An applicant with insulin-treated diabetes mellitus shall be assessed as unfit.

(24) Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

(25) An applicant with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(26) An applicant with renal or genitourinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(27) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

(28) An applicant with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(29) An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(30) An applicant who is seropositive for HIV shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

(31) An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.

(32) During the gestational period, precautions shall be taken for the timely relief of an ATCO in the event of early onset of labour or other complications.

(33) For an applicant with a low-risk, uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 2.11.2.8(b)(31) of this subsection, the fit assessment shall be limited to the period until the end of the 34th week of gestation.

(34) Following confinement or termination of pregnancy, the applicant shall not be permitted to

exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.

(35) An applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Any sequelae after lesions affecting the bones, joints, muscles, or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(36) The applicant shall not possess any abnormality or disease of the ear or related structures that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(37) There shall be no malformation or any disease of the nose, buccal cavity, or upper respiratory tract that is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(38) An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) VISUAL REQUIREMENTS.

(1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each reexamination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury, or eye surgery.

(3) An applicant may use contact lenses to meet the requirement of paragraph 2.11.2.8(c)(2) of this subsection provided that:

(i) The lenses are monofocal and non-tinted;

(ii) The lenses are well tolerated; and

(iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each reexamination provided the history of their contact lens prescription is known.

(4) An applicant with a large refractive error shall use contact lenses or high-index spectacle lenses.

Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.

(5) An applicant whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to the initial medical certificate and every 5 years thereafter.

Note: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

(6) An applicant who has undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless the applicant is free from those sequelae which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(7) An applicant shall have the ability to read, while wearing the correcting lenses, if any, required by paragraph 2.11.2.8(c)(2) of this subsection, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: Any applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.

Note 2: An applicant who needs near correction to meet this requirement will require "look-over," bifocal, or perhaps multifocal lenses in order to read radar screens, visual displays, and written or printed material, and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic or RP duties. However, it should be realised that single-vison near correction significantly reduces distant visual acuity.

Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for air traffic control or RP duties the applicant is likely to perform.

(8) When near correction is required in accordance with this paragraph 2.11.2.8(c) of this subsection, a second pair of near-correction spectacles shall be kept available for immediate use.

(9) The applicant shall be required to have normal fields of vision.

(10) The applicant shall be required to have normal binocular function.

Note: Defective stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment, where the fusional reserves are sufficient to prevent asthenopia and diplopia, may not be disqualifying.

(d) HEARING REQUIREMENTS.

(1) The applicant shall be tested by pure-tone audiometry:

(i) At the initial medical examination;

(ii) At least once every 4 years up to the age of 40 years; and

(iii) At least once every 2 years after the age of 40 years.

(2) The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000, or 2000 Hz, or more than 50 dB at 3000 Hz.

(3) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a normal air traffic control working environment or RP working environment.

(4) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 2 – IMPLEMENTING STANDARDS

JANUARY 2024

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PART 2 IMPLEMENTING STANDARDS

IS 2.2.2 LANGUAGE PROFICIENCY

(a) General.

(1) To meet the language proficiency requirements contained in 2.2.2 of Part 2, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the Authority, compliance with the holistic descriptors in IS 2.2.2(b) and with the Operational Level (Level 4) of the Language Proficiency Rating Scale as provided in IS 2.2.2(c).

(b) Holistic Descriptors. Proficient speakers shall:

(1) Communicate effectively in voice-only (telephone/radiotelephone) and face-to-face situations;

(2) Communicate on common, concrete, and work-related topics with accuracy and clarity;

(3) Use appropriate communicative strategies to exchange messages and to recognise and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;

(4) Handle successfully and with relative ease the linguistic challenges presented by a complication or an unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and

(5) Use a dialect or accent which is intelligible to the aeronautical community.

(c) Rating scale.

(1) Pre-elementary Level (Level 1)

(i) Pronunciation: Performs at a level below the Elementary Level.

(ii) Structure: Performs at a level below the Elementary Level.

(iii) Vocabulary: Performs at a level below the Elementary Level.

(iv) Fluency: Performs at a level below the Elementary Level.

(v) Comprehension: Performs at a level below the Elementary Level.

(vi) Interactions: Performs at a level below the Elementary Level.

(2) Elementary Level (Level 2).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.

(ii) Structure: Shows only limited control of a few simple memorised grammatical structures and sentence patterns.

(iii) Vocabulary: Limited vocabulary range consisting only of isolated words and memorised phrases.

(iv) Fluency: Can produce very short, isolated, memorised utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.

(v) Comprehension: Comprehension is limited to isolated, memorised phrases when they are carefully and slowly articulated.

(vi) Interactions: Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.

(3) Pre-operational Level (lLevel 3).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.

(ii) Structure: Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.

(iii) Vocabulary: Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.

(iv) Fluency: Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.

(v) Comprehension: Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.

(vi) Interactions: Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.

(4) Operational Level (Level 4).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with understanding.

(ii) Structure: Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.

(iii) Vocabulary: Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.

(iv) Fluency: Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.

(v) Comprehension: Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or may require clarification strategies.

(vi) Interactions: Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

(5) Extended Level (Level 5):

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.

(ii) Structure: Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.

(iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work -related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.

(iv) Fluency: Able to speak at length with relative ease on familiar topics, but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.

(v) Comprehension: Comprehension is accurate on common, concrete, and work-related topics and is mostly accurate when the speaker is confronted with a linguistic or situational

complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.

(vi) Interactions: Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.

(6) Expert Level (Level 6).

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.

(ii) Structure: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.

(iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.

(iv) Fluency: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect (e.g., to emphasise a point). Uses appropriate discourse markers and connectors spontaneously.

(v) Comprehension: Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.

(vi) Interactions: Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.

IS 2.2.3.1 CREDIT FOR MILITARY PILOTS

(a) Credit for a licence or rating may be given to military pilots who meet the requirements of 2.2.3.1 of Part 2 and IS 2.2.3.1.

(b) Military pilots on active flying status within the past 12 months. The holder of a military pilot licence (or certificate) who has been on active flying status within the 12 months preceding the application for a licence or rating shall:

(1) Pass a knowledge test on the areas of operation listed in paragraph 2.2.3.1(b)(1) of Part 2;

(2) Present documentation showing compliance with the requirements of IS 2.2.3.1(c) for at least one aircraft category rating; and

(3) Present documentation showing that the applicant is or was, at any time during the 12 calendar months preceding the month of application, the holder of a military pilot licence (or certificate) on active flying status in an armed force of the Kingdom of the Netherlands.

(c) Aircraft category, class and type ratings. The Authority may issue to the holder of a military pilot licence (or certificate) an aircraft category, class, or type rating to a CPL if the pilot presents documentary evidence that shows satisfactory accomplishment of:

(1) A military pilot check and instrument proficiency check of the Kingdom of the Netherlands in that aircraft category, class, or type, if applicable, as PIC during the 12 calendar months preceding the month of application; and

(2) At least 10 hours of PIC time in that aircraft category, class, or type, if applicable, during the 12 calendar months preceding the month of application.

(d) Instrument rating. The holder of a military pilot licence (or certificate) may apply for an aeroplane or helicopter IR to be added to his or her CPL if the pilot has, within the 12 calendar months preceding the month of application:

(1) Passed an instrument proficiency check by an armed force of the Kingdom of the Netheralnds in the aircraft category for the IR sought; and

(2) Received authorisation from an armed force of the Kingdom of the Netherlands to conduct IFR

flights on airways in that aircraft category and class for the IR sought.

(e) Aircraft type rating. The Authority will issue an aircraft type rating only for aircraft types that the Authority has certified for civil operations.

(f) Aircraft type rating placed on an ATPL. The Authority may issue to the holder of a military pilot licence (or certificate) who holds an ATPL an aircraft type rating, provided that the pilot:

(1) Holds a category and type rating for that type of aircraft at the ATPL level; and

(2) Passed an official military pilot of the Kingdom of the Netherlands check and instrument proficiency check in that type of aircraft as PIC during the 12 calendar months preceding the month of application.

(g) Evidentiary Documents. The Authority may accept the following documents as satisfactory evidence of military pilot status:

(1) An official identification card issued to the pilot by an armed force of the Kingdom of the Netheralnds to demonstrate membership in the armed forces;

(2) An original or a copy of a certificate of discharge or release from an armed force of the Kingdom of the Netherlands;

(3) At least one of the following:

(i) An order of an armed force of the Kingdom of the Netherlands to flight status as a military pilot;

(ii) An armed force of the Kingdom of the Netherlands form or logbook showing military pilot status; or

(iii) An order showing that the applicant graduated from a military pilot school of the Kingdom of the Netherlands and received a rating as a military pilot;

(4) A certified armed force logbook or an appropriate official armed force form or summary to demonstrate flight time in military aircraft as a member of an armed force of the Kingdom of the Netherlands

(5) An official armed force of the Kingdom of the Netherlands record of a military designation as PIC; and

(6) An official record of satisfactory accomplishment of an instrument proficiency check during the 12 calendar months preceding the month of application.

IS 2.2.4.3 PROCEDURES FOR VALIDATION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority will, before making the agreement required by paragraph 2.2.4.3(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(b) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao, or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.3(a), shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(c) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures, and RT, if those areas differ between Curaçao and the other Contracting State.

(d) Application for the validation certificate shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

IS 2.2.4.4 PROCEDURES FOR CONVERSION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE

LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.

(b) The Authority will, before making the agreement required by paragraph 2.2.4.4(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(c) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.4(b), shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(1) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures, and RT, if those areas differ between Curaçao and the other Contracting State.

(d) Renewal and reissue of converted licences and ratings:

(1) When examiners are available in Curaçao to perform proficiency checks for the renewal of rating(s), or skill tests for the reissue of the licence or rating(s), these checks/tests will be performed by the authorised examiners of Curaçao.

(2) When examiners are not available in Curaçao to perform proficiency checks for the renewal of the rating(s), or skill tests for the reissue of the licence or rating(s), the availability of examiners for these checks/tests from the other Contracting State can be arranged in the agreement required by paragraph 2.2.4.4(a)(3) of Part 2.

(e) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

(f) The conversion of medical certificates, and/or reliance on medical examinations conducted in the other Contracting State, may also be addressed in the government-to-government agreement between the States.

IS 2.2.4.9 PROCEDURES FOR VALIDATION OF AMT LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority will, before making the agreement required by paragraph 2.2.4.9(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(b) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao, or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.9(a) shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(c) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. The knowledge test may also include Curaçao airworthiness requirements governing certification and continuing airworthiness and AMOs and procedures, if those regulations differ between Curaçao and the other Contracting State.

(d) Application for the validation certificate shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

IS 2.2.4.10 PROCEDURES FOR CONVERSION OF AMT LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.

(b) The Authority will, before making the agreement required by 2.2.4.10(a)(3) of Part 2, be convinced that the other Contracting State issues licences in conformity with at least the requirements of Part 2, by conducting a regulatory comparison of the licensing systems and requirements.

(c) An inspector, legal counsel, and/or licensing subject matter experts from Curaçao, or from another Contracting State delegated by the Authority of Curaçao, must visit the other Contracting State to be convinced that the licensing system in that Contracting State is in conformity with at least the requirements of Part 2. A report describing the bases for the decision shall be made to the Authority of Curaçao. The report, and the regulatory comparison noted in IS 2.2.4.10(b), shall serve as the basis for a government-to-government agreement between the involved States regarding the use of or reliance on the licensing system.

(1) An air law test must be arranged if the air law system of Curaçao is different from the air law system of the other Contracting State. The knowledge test may also include Curaçao airworthiness requirements governing certification and continuing airworthiness and AMOs and procedures, if those regulations differ between Curaçao and the other Contracting State.

(d) Renewal and reissue of converted licences and ratings:

(1) When examiners are available in Curaçao to perform proficiency checks for the renewal of rating(s), or skill tests for the reissue of the licence or rating(s), these tests/checks will be performed by the authorised examiners of Curaçao;

(2) When examiners are not available in Curaçao to perform proficiency checks for the renewal of the rating(s), or skill tests for the reissue of the licence or rating(s), the availability of examiners for these checks/tests from the other Contracting State can be arranged in the agreement required by 2.2.4.10(a)(3) of Part 2.

(e) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

IS 2.2.4.11 AUTOMATIC VALIDATION OF LICENCES ISSUED BY CONTRACTING STATES WITH A FORMAL AGREEMENT UNDER COMMON LICENSING REGULATIONS

(a) The attachment to automatically validated licences issued by the Director General Civil Aviation shall be as follows:

For Use Only by the CCAA	1. Curaçao Civil Aviation Authority **ATTACHMENT [XXX] TO AUTOMATICALLY VALIDATED LICENCES**	For Use Only by the CCAA
2. The licence is automatically validated by all the States listed in line 3 under an agreement registered with ICAO. The ICAO Registration Number is: [_____].		
3. The Contracting States that automatically validate this licence are: [ ]		
4. [Signature or stamp]		
5. Date of issue: [dd/mm/yyyy]		
6. If issued by an RSOO: The [Regional Safety Oversight Organisation] Contracting States are: [list of State members of the RSOO]		

CAA form dated 12/2021

(b) The attachment number, to be filled in the [XXX] space, shall be the identification number of the Issuing Authority.

IS 2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE

(a) The following details shall appear on the licence and the numbering scheme shall be in Roman numerals:

(i) Name of Curaçao (in bold type);

(ii) Title of licence (in very bold type);

(ii) Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;

(iii) Name of licence holder in full (in Roman alphabet also if script of national language is other than Roman);

(iv) Name of holder in full;

(iv_a) Date of birth

(v) Address of licence holder;

(vi) Nationality of licence holder;

(vii) Signature of licence holder;

(viii) Authority and, where necessary, conditions under which the licence is issued;

(ix) Certification concerning validity and authorisation for holder to exercise privileges appropriate to the licence;

(x) Signature of the officer issuing the licence and the date of such issue;

(xi) Seal or stamp of the authority issuing the licence;

(xii) Ratings (e.g., category, class, type of aircraft, airframe, aerodrome control);

(xiii) Remarks (i.e., special endorsements relating to limitations, endorsements for privileges, including an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention); and

(xiv) Any other details desired by the authority issuing the licence.

(b) The privileges and ratings shall be clearly identified on the licence in items (ix) and (xii).

Note: Item (vi), Nationality, is presumed to be citizenship of the licence holder.

IS 2.3.1 PILOT LICENCES, CATEGORIES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, INSTRUCTORS FOR PILOT LICENSING, AND DESIGNATED PILOT EXAMINERS

IS 2.3.1.7 RECORDING OF FLIGHT TIME

(a) The details in the records of flights flown as pilot shall contain the items listed in IS 2.3.1.7(b) and (c) below.

(b) For the purpose of meeting the requirements of 2.3.1.6 of Part 2, each person shall enter the following information for each flight or lesson logged:

(1) Personal details:

(i) Name of the licence holder

(ii) Address of the licence holder

(2) For each flight:

(i) Name of the PIC

(ii) Date of the flight

(iii) Place and time of departure and arrival

(iv) Type of aircraft and registration

(3) For each session in an FSTD:

(i) Type and qualification number of the FSTD

(ii) FSTD instruction

(iii) Date

(iv) Total time of session

(4) Pilot function:

(i) Solo

(ii) PIC

(iii) CP

(iv) Dual

(v) FI

(c) Logging of flight time.

(1) Logging of solo flight time:

(i) A student pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

(2) Logging of PIC flight time:

(i) The applicant or the holder of a pilot licence may log as PIC time all that flight time during which that person is:

(A) The sole manipulator of the controls of an aircraft for which the pilot is rated; and

(B) Acting as PIC of an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(ii) An authorised instructor may log as PIC time all the flight time while acting as an authorised instructor.

(iii) A student pilot may log as PIC time all solo flight time and flight time as student PIC, provided that such time is countersigned by the instructor.

(3) Logging of CP time:

(i) A person may log CP time only when occupying a pilot seat as CP in an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(4) Logging of instrument flight time:

(i) A person may log instrument flight time only for that flight when the person operates the aircraft solely by reference to instruments under actual or simulated instrument flight conditions.

(5) Logging instruction time:

(i) A person may log instruction time when that person receives training from an authorised instructor in an aircraft or an FSTD.

(ii) The instruction time shall be logged in a record (e.g., logbook) and shall be endorsed by the authorised instructor

IS 2.3.2 CATEGORY, CLASS, AND TYPE RATINGS, CATEGORY II/III AUTHORISATIONS, AND ENDORSEMENTS

IS 2.3.2.5 CATEGORY II AND III AUTHORISATION

(a) The Authority will issue a CAT II or CAT III pilot authorisation by letter, as part of an applicant's IR or ATPL.

(b) Upon original issue, the authorisation will contain the following limitations:

(1) For CAT II operations, 1600 ft RVR and 150 ft DH; and

(2) For CAT III operations, as specified in the authorisation document.

(c) To remove the limitations on a CAT II or CAT III pilot authorisation:

(1) A CAT II limitation holder may remove the limitation by showing that, since the beginning of the sixth preceding month, the holder has made three CAT II ILS approaches with a 150-foot DH to a landing under actual or simulated instrument conditions; or

(2) A CAT III limitation holder may remove the limitation by showing experience as specified in the

authorisation.

(d) An authorisation holder or an applicant for an authorisation may use a flight simulator or flight training device, if it is approved by the Authority for such use, to meet the experience requirement, flight instruction requirement, or for the practical test required by Part 2 Subsection 2.3.2.5 for a CAT II or a CAT III pilot authorisation, as applicable.

(e) Category II: skill test requirements.

(1) An applicant for the following authorisations shall pass a skill test:

(i) Issuance or renewal of a CAT II pilot authorisation

(ii) The addition of another type aircraft to a CAT II pilot authorisation

(2) To be eligible for the skill test for an authorisation under 2.3.2.5 of Part 2 an applicant shall:

(i) Meet the requirements of 2.3.2.5 of Part 2; and

(ii) If the applicant has not passed a skill test for this authorisation during the 12 calendar months preceding the month of the test:

(A) Meet the requirements of 8.4.1.10 of these regulations; and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall accomplish the approaches specified in IS 2.3.2.5(e)(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the minimum DH for the ILS approach in the type aircraft in which the practical test is to be conducted, except that the approaches need not be conducted to the DH authorised for CAT II operations;

(iii) To the DH authorised for CAT II operations only if conducted in an approved flight simulator or an approved flight training device; and

(iv) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted, or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(4) The flight time acquired in meeting the requirements of IS 2.3.2.5(e)(2)(ii)(B) may be used to meet the requirements of IS 2.3.2.5(e)(2)(ii)(A).

(f) Category II: skill test procedures. The skill test consists of an oral increment and a flight increment.

(1) Oral increment. In the oral increment of the practical test an applicant shall demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Recognition of the DH;

(iii) Missed approach procedures and techniques using computed or fixed-attitude guidance displays;

(iv) Use and limitations of RVR;

(v) Use of visual clues, their availability or limitations, and the altitude at which they are normally discernible at reduced RVR readings;

(vi) Procedures and techniques related to transition from nonvisual to visual flight during a final approach under reduced RVR;

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system, auto approach coupler (including split-axis type, if equipped), auto throttle system (if equipped), and other required CAT II

equipment;

(x) Assigned duties of the CP during CAT II approaches, unless the aircraft for which authorisation is sought does not require a CP; and

(xi) Instrument and equipment failure warning systems.

(2) Flight increment. The following requirements apply to the flight increment of the practical test:

(i) The flight increment shall be conducted in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(ii) The flight increment shall consist of at least two ILS approaches to 100 ft AGL, including at least one landing and one missed approach.

(iii) All approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands.

(iv) If a multi-engine aeroplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker.

(v) If an approved multi-engine FSTD is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.

(vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in coordination with a CP who holds a type rating in the aircraft in which the authorisation is sought.

(vii) An inspector or an evaluator may conduct oral questioning at any time during a practical test.

(g) Category III: Skill test requirements

(1) The Authority will require that an applicant pass a skill test for:

(i) Issuance or renewal of a CAT III pilot authorisation

(ii) The addition of another type of aircraft to a CAT III pilot authorisation

(2) To be eligible for the skill test, an applicant shall:

(i) Meet the requirements of 2.3.2.5 of Part 2; and

(ii) If the applicant has not passed a practical test for this authorisation during the 12 calendar months preceding the month of the test:

(A) Meet the requirements of 8.4.1.10, 8.10.1.20, and 8.10.1.32 of these regulations; and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall conduct the approaches specified in IS 2.3.2.5(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the alert height or DH for the ILS approach in the type aircraft in which the practical test is to be conducted;

(iii) Not necessarily to the DH authorised for CAT III operations;

(iv) To the alert height or DH, as applicable, authorised for CAT III operations only if conducted in an approved flight simulator or approved flight training device; and

(v) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted, or in an approved flight simulator that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought; and

(B) is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(4) Knowledge requirements. An applicant shall demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Determination and recognition of the alert height or DH, as applicable, including use of a radar altimeter;

(iii) Recognition of and proper reaction to significant failures encountered prior to and after reaching the alert height or DH, as applicable;

(iv) Missed approach procedures and techniques using computed or fixed-attitude guidance displays and expected height loss as they relate to manual go-around or automatic go-around, and initiation altitude, as applicable;

(v) Use and limitations of RVR, including determination of controlling RVR and required transmissometers;

(vi) Use, availability, or limitations of visual cues and the altitude at which they are normally discernible at reduced RVR readings, including:

(A) Unexpected deterioration of conditions to less than minimum RVR during approach, flare, and rollout;

(B) Demonstration of expected visual references with weather at minimum conditions;

(C) The expected sequence of visual cues during an approach in which visibility is at or above landing minima; and

(D) Procedures and techniques for making a transition from instrument reference flight to visual flight during a final approach under reduced RVR;

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other CAT III equipment;

(x) Assigned duties of the CP during CAT III operations, unless the aircraft for which authorisation is sought does not require a CP;

(xi) Recognition of the limits of acceptable aircraft position and flight path tracking during approach, flare, and, if applicable, rollout; and

(xii) Recognition of, and reaction to, airborne or ground system faults or abnormalities, particularly after passing alert height or decision height, as applicable.

(5) Flight skill requirements.

(i) An applicant may conduct the practical test in an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought, or in an approved flight simulator that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(ii) The practical test shall consist of at least two ILS approaches to 100 ft AGL, including one landing and one missed approach initiated from a very low altitude that may result in a touchdown during the go-around manoeuvre;

(iii) The applicant shall perform all approaches during the practical test with the approved automatic landing system or an equivalent landing system approved by the Authority;

(iv) If a multi-engine aircraft with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the practical test shall include the performance of one missed approach with the most critical engine, if applicable, set at idle

or zero thrust before reaching the middle or outer marker;

(v) If an approved multi-engine flight simulator or approved multi-engine flight training device is used, the applicant shall execute a missed approach with an engine, which shall be the most critical engine, if applicable, failed;

(vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in coordination with a check pilot who holds a type rating in the aircraft in which the authorisation is sought; and

(vii) Subject to the limitations of this paragraph, for CAT IIIB operations predicated on the use of a fail passive rollout control system, the applicant shall execute at least one manual rollout using visual reference or a combination of visual and instrument references. The applicant shall initiate this manoeuvre by a fail passive disconnect of the rollout control system:

(A) After main gear touchdown;

(B) Prior to nose gear touchdown;

(C) In conditions representative of the most adverse lateral touchdown displacement allowing a safe landing on the runway; and

(D) In weather conditions anticipated in CAT IIIB operations.

(6) An inspector or an evaluator may conduct oral questioning at any time during the practical test.

IS 2.3.2.6 PBN PILOT AUTHORISATION

(a) An authorisation holder or an applicant for an authorisation may use a flight simulator or flight training device, if it is approved by the Authority for such use, to meet the experience requirement of paragraph 2.3.2.6(c) of Part 2, or for the practical test required by Part 2 for a PBN pilot authorisation, as applicable.

(b) PBN skill test requirements:

(1) An applicant for the PBN pilot authorisation shall pass a skill test:

(i) Issuance or re-issuance of a PBN pilot authorisation.

(ii) The addition of another type aircraft to a PBN pilot authorisation.

(2) To be eligible for the skill test for an authorisation under 2.3.2.6 of Part 2 an applicant shall:

(i) Meet the requirements of 2.3.2.6 of Part 2; and

(ii) If the applicant has not passed a skill test for this authorisation during the 12 calendar months preceding the month of the test:

(A) Meet the requirements of 8.4.1.10 of these regulations; and

(B) Have performed at least six IFR approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall accomplish the approaches specified in IS 2.3.2.6(e)(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the minimum DH for the ILS approach in the type aircraft in which the practical test is to be conducted; and

(iii) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted, or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(4) The flight time acquired in meeting the requirements of IS 2.3.2.5(e)(2)(ii)(B) may be used to meet the requirements of IS 2.3.2.5(e)(2)(ii)(A).

(c) PBN skill test procedures. The skill test consists of an oral increment and a flight increment.

(1) Oral increment. In the oral increment of the practical test an applicant shall demonstrate knowledge of the following:

(i) Required landing distance;

(ii) Recognition of the DH;

(iii) Missed approach procedures and techniques using computed or fixed-attitude guidance displays;

(iv) Use and limitations of the GNSS system;

(v) Effects of vertical and horizontal windshear;

(vi) Characteristics and limitations of the flight director system, auto approach coupler (including split-axis type, if equipped), auto throttle system (if equipped), and other required PBN equipment;

(vii) Assigned duties of the CP during PBN approaches, unless the aircraft for which authorisation is sought does not require a CP; and

(viii) Instrument and equipment failure warning systems.

(2) Flight increment. The following requirements apply to the flight increment of the practical test:

(i) The flight increment shall be conducted in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved FSTD that:

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certificated under Part 3 of these regulations.

(iii) The flight increment shall consist of at least two PBN approaches, including at least one landing and one missed approach.

(iii) All approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands.

(iv) If a multi-engine aeroplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before commencement of the PBN approach.

(v) If an approved multi-engine FSTD is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.

(vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in coordination with a CP who holds a type rating in the aircraft in which the authorisation is sought.

(3) An inspector or an evaluator may conduct oral questioning at any time during a practical test.

(4) The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aircraft used:

Height	
Generally	± 100 feet
Starting a go-around at decision height/altitude	+ 50 feet/– 0 feet

Minimum descent height/MAP/altitude	+ 50 feet/– 0 feet
Tracking	
On radio aids	± 5°
For angular deviations	Half scale deflection, azimuth and glide path (e.g. LPV, ILS, MLS, GLS)
2D (LNAV) and 3D (LNAV/VNAV) "linear" lateral deviations	cross-track error/deviation shall normally be limited to ± $\frac{1}{2}$ the RNP value associated with the procedure. Brief deviations from this standard up to a maximum of 1 time the RNP value are allowable.
3D linear vertical deviations (e.g. RNP APCH (LNAV/VNAV) using BaroVNAV)	not more than – 75 feet below the vertical profile at any time, and not more than + 75 feet above the vertical profile at or below 1 000 feet above aerodrome level.
Heading	
all engines operating	± 5°
with simulated engine failure	± 10°
Speed	
all engines operating	± 5 knots
with simulated engine failure	+ 10 knots/– 5 knots,

(5) Contents of the skill test:

AEROPLANES

SECTION 1 — PRE-FLIGHT OPERATIONS AND DEPARTURE	
Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply in all sections	
a	Use of flight manual (or equivalent) especially a/c performance calculation, mass and balance
b	Use of Air Traffic Services document, weather document
c	Preparation of ATC flight plan, IFR flight plan/log
d	Identification of the required navaids for departure, arrival and approach procedures
e	Pre-flight inspection
f	Weather Minima
g	Taxiing
h	PBN departure (if applicable): — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the departure chart.
i	Pre-take-off briefing, Take-off
j	Transition to instrument flight
k	Instrument departure procedures, including PBN departures, and altimeter setting
l	ATC liaison — compliance, R/T procedures
SECTION 2 — GENERAL HANDLING	
a	Control of the aeroplane by reference solely to instruments, including: level flight at various speeds, trim
b	Climbing and descending turns with sustained Rate 1 turn
c	Recoveries from unusual attitudes, including sustained 45° bank turns and steep descending turns

d	Recovery from approach to stall in level flight, climbing/descending turns and in landing configuration — only applicable to aeroplanes
e	Limited panel: stabilised climb or descent, level turns at Rate 1 onto given headings, recovery from unusual attitudes — only applicable to aeroplanes
SECTION 3 — EN-ROUTE IFR PROCEDURES	
a	Tracking, including interception, e.g. NDB, VOR, or track between waypoints
b	Use of navigation system and radio aids
c	Level flight, control of heading, altitude and airspeed, power setting, trim technique
d	Altimeter settings
e	Timing and revision of ETAs (en-route hold, if required)
f	Monitoring of flight progress, flight log, fuel usage, systems' management
g	Ice protection procedures, simulated if necessary
h	ATC liaison — compliance, R/T procedures
SECTION 3a — ARRIVAL PROCEDURES	
a	Setting and checking of navigational aids, if applicable
b	Arrival procedures, altimeter checks
c	Altitude and speed constraints, if applicable
d	PBN arrival (if applicable): — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the arrival chart.
SECTION 4 — 3D OPERATIONS	
a	Setting and checking of navigational aids

	Check Vertical Path angle For RNP APCH: — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the approach chart.
b	Approach and landing briefing, including descent/approach/landing checks, including identification of facilities
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing
f	Altitude, speed heading control (stabilised approach)
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 5 — 2D OPERATIONS	
a	Setting and checking of navigational aids For RNP APCH: — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the approach chart.
b	Approach and landing briefing, including descent/approach/landing checks, including identification of facilities
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing

f	Altitude/Distance to MAPT, speed, heading control (stabilised approach), Stop Down Fixes (SDF(s)), if applicable
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 6 — FLIGHT WITH ONE ENGINE INOPERATIVE (multi-engine aeroplanes only)	
a	Simulated engine failure after take-off or on go-around
b	Approach, go-around and procedural missed approach with one engine inoperative
c	Approach and landing with one engine inoperative
d	ATC liaison — compliance, R/T procedures

HELICOPTERS	
SECTION 1 — DEPARTURE	
Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply in all sections	
a	Use of flight manual (or equivalent) especially aircraft performance calculation; mass and balance
b	Use of Air Traffic Services document, weather document
c	Preparation of ATC flight plan, IFR flight plan/log
d	Identification of the required navaids for departure, arrival and approach procedures
e	Pre-flight inspection
f	Weather minima
g	Taxiing/Air taxi in compliance with ATC or instructions of instructor

h	PBN departure (if applicable): — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the departure chart.
i	Pre-take-off briefing, procedures and checks
j	Transition to instrument flight
k	Instrument departure procedures, including PBN procedures
SECTION 2 — GENERAL HANDLING	
a	Control of the helicopter by reference solely to instruments, including:
b	Climbing and descending turns with sustained Rate 1 turn
c	Recoveries from unusual attitudes, including sustained 30° bank turns and steep descending turns
SECTION 3 — EN-ROUTE IFR PROCEDURES	
a	Tracking, including interception, e.g. NDB, VOR, RNAV
b	Use of radio aids
c	Level flight, control of heading, altitude and airspeed, power setting
d	Altimeter settings
e	Timing and revision of ETAs
f	Monitoring of flight progress, flight log, fuel usage, systems management
g	Ice protection procedures, simulated if necessary and if applicable
h	ATC liaison — compliance, R/T procedures
SECTION 3a — ARRIVAL PROCEDURES	
a	Setting and checking of navigational aids, if applicable

b	Arrival procedures, altimeter checks
c	Altitude and speed constraints, if applicable
d	PBN arrival (if applicable) — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the arrival chart.
SECTION 4 — 3D OPERATIONS	
a	Setting and checking of navigational aids Check Vertical Path Angle For RNP APCH: (a) Check that the correct procedure has been loaded in the navigation system; and (b) Cross-check between the navigation system display and the approach chart.
b	Approach and landing briefing, including descent/approach/landing checks
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing
f	Altitude, speed, heading control (stabilised approach)
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 5 — 2D OPERATIONS	
a	Setting and checking of navigational aids For RNP APCH: — Check that the correct procedure has been loaded in the navigation system; and — Cross-check between the navigation system display and the approach chart.

b	Approach and landing briefing, including descent/approach/landing checks and identification of facilities
c	Holding procedure
d	Compliance with published approach procedure
e	Approach timing
f	Altitude, speed, heading control (stabilised approach)
g	Go-around action
h	Missed approach procedure/landing
i	ATC liaison — compliance, R/T procedures
SECTION 6 — ABNORMAL AND EMERGENCY PROCEDURES	
This section may be combined with sections 1 through 5. The test shall have regard to control of the helicopter, identification of the failed engine, immediate actions (touch drills), follow-up actions and checks and flying accuracy, in the following situations:	
a	Simulated engine failure after take-off and on/during approach (at a safe altitude unless carried out in an FFS or FNPT II/III, FTD 2,3)
b	Failure of stability augmentation devices/hydraulic system (if applicable)
c	Limited panel
d	Autorotation and recovery to a pre-set altitude
e	3D operations manually without flight director 3D operations manually with flight director

IS 2.3.3 STUDENT PILOTS

A student pilot who is receiving training for solo flight shall receive and log flight training for the following manoeuvres and procedures, as applicable for each category and class rating as specified in the applicable subsection to this IS.

Note: When (SE) is indicated, the item is only for single engine aircraft. When (ME) is indicated, the item is only for multi-engine aircraft

IS 2.3.3.2 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AEROPLANE CATEGORY

A student pilot who is receiving training for solo flight in an aeroplane shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(3) Taxiing, or surface operations, including run ups;
(4) Take-offs and landings, including normal and crosswind;
(5) Straight and level flight and turns in both directions;
(6) Climbs and climbing turns;
(7) Aerodrome traffic patterns, including entry and departure procedures;
(8) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(9) Descents, with and without turns, using high and low drag configurations;
(10) Flight at various airspeeds from cruise to slow flight;
(11) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
(12) Emergency procedures and equipment malfunctions;
(13) Ground reference manoeuvres;
(14) Approaches to a landing area with simulated engine malfunctions;
(15) Slips to a landing (SE only); and
(16) Go-arounds.

IS 2.3.3.3 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – HELICOPTER CATEGORY

A student pilot who is receiving training for solo flight in a helicopter shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing, or surface operations, including run ups;
(3) Take-offs and landings, including normal and crosswind;
(4) Straight and level flight and turns in both directions;
(5) Climbs and climbing turns;
(6) Aerodrome traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents, with and without turns, using high and low drag configurations;
(9) Flight at various airspeeds;
(10) Emergency procedures and equipment malfunctions;
(11) Ground reference manoeuvres;
(12) Approaches to the landing area;
(13) Hovering and hovering turns;
(14) Go-arounds;
(15) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to a hover;
(16) Rapid decelerations; and

(17) Simulated one-engine-inoperative approaches and landings (ME only).

IS 2.3.3.4 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – POWERED-LIFT CATEGORY

A student pilot who is receiving training for solo flight in a powered-lift shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing, or surface operations, including run ups;
(3) Take-offs and landings, including normal and crosswind;
(4) Straight and level flight and turns in both directions;
(5) Climbs and climbing turns;
(6) Aerodrome traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds from cruise to slow flight;
(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;
(11) Emergency procedures and equipment malfunctions;
(12) Ground reference manoeuvres;
(13) Approaches to a landing with simulated engine malfunctions;
(14) Go-arounds;
(15) Approaches to the landing area;
(16) Hovering and hovering turns; and
(17) Simulated one-engine-inoperative approaches and landings (ME only).

IS 2.3.3.5 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING – AIRSHIP CATEGORY

A student pilot who is receiving training for solo flight in an airship shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation, and aircraft systems;
(2) Taxiing or surface operations, including run ups;
(3) Take-offs and landings, including normal and crosswind;
(4) Straight and level flight and turns in both directions;
(5) Climbs and climbing turns;
(6) Aerodrome traffic patterns, including entry and departure procedures;
(7) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(8) Descents with and without turns;
(9) Flight at various airspeeds from cruise to slow flight;
(10) Emergency procedures and equipment malfunctions;
(11) Ground reference manoeuvres;
(12) Rigging, ballasting, and controlling pressure in the ballonets, and superheating; and
(13) Landings with positive and with negative static trim.

IS 2.3.3.6 RESERVED.

IS 2.3.3.7 RESERVED.

IS 2.3.4 RESTRICTED PRIVATE PILOT LICENCE

IS 2.3.4.2 RPPL SKILL TEST—AEROPLANE CATEGORY

(a) The skill test for the single-engine and multi-engine private pilot licence –aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Airworthiness requirements;

(iii) Weather information;

(iv) National airspace system;

(v) Performance and limitations;

(vi) Operation of system;

(vii) Principles of flight;

(viii) Water and Seaplane Characteristics (S);

(ix) Seaplane bases, maritime rules and aids to marine navigation (S);

(x) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting;

(iv) Taxiing (L);

(v) Taxiing and Sailing (S);

(vi) Before takeoff check.

(3) Aerodrome and seaplane operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach and landing;

(iii) Soft-field takeoff and climb (SE) (L);

(iv) Soft-field approach and landing (SE) (L);

(v) Short-field (Confined area (S)) takeoff and maximum performance climb;

(vi) Short-field approach (Confined area (S)) and landing;

(vii) Glassy Water takeoff and climb (S);

(viii) Glassy water approach and landing (S);

(ix) Rough water takeoff and climb (S);

(x) Rough water approach and landing (S);

(xi) Forward slip to a landing (SE);

(xii) Go-around/rejected landing.

(5) Performance manoeuvre, including the applicant's knowledge and performance of the following task:

(i) Steep turns.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Rectangular course;

(ii) S-turns;

(iii) Turns around a point.

(7) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-off stalls;

(iii) Power-on stalls;

(iv) Spin awareness.

(8) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight;

(vi) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks:

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing;

(ii) Emergency descent (ME);

(iii) Engine failure during takeoff before minimum controllable airspeed (VMC) (simulated) (ME);

(iv) Engine failure after lift-off (simulated) (ME);

(v) Approach and landing with an inoperative engine (simulated) (ME);

(vi) Systems and equipment malfunctions;

(vii) Emergency equipment and survival gear.

(10) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring with one engine inoperative;

(ii) VMC demonstration;

(iii) Engine failure during flight (by reference to instruments);

(iv) Instrument approach – one engine inoperative (by reference to instruments).

(11) Night operation, including the applicant's knowledge and performance of the following task:

(i) Night preparation.

(12) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing, parking and securing;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Ramping/Beaching (S).

IS 2.3.4.3 RPPL SKILL TEST—HELICOPTER CATEGORY

(a) The skill test for the private pilot licence -helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) National airspace system;

(iv) Performance and limitations;

(v) Operation of system;

(vi) Minimum equipment list;

(vii) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting and rotor engagement;

(iv) Before takeoff check.

(3) Aerodrome and heliport operations, including the applicant's knowledge and performance of the following tasks;

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and heliport markings and lighting.

(4) Hovering manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Vertical takeoff and landing;

(ii) Slope operations;

(iii) Surface taxi;

(iv) Hover taxi;

(v) Air taxi.

(5) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach;

(iii) Maximum performance takeoff and climb.

(iv) Steep approach;

(v) Rolling takeoff;

(vi) Shallow approach and running/roll-on landing;

(vii) Go-around.

(6) Performance manoeuvre, including the applicant's knowledge and performance of the following tasks:

(i) Rapid deceleration;

(ii) Straight in autorotation.

(7) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Systems and equipment malfunctions;

(iv) Settling-with-power;

(v) Low rotor RPM recovery;

(vi) Dynamic rollover;
(vii) Ground resonance;
(viii) Low G conditions;
(ix) Emergency equipment and survival gear.

(8) Night operation, including the applicant's knowledge and performance of the following tasks:
(i) Physiological aspects of night flying;
(ii) Lighting and equipment for night flying.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
(i) After landing and securing.

IS 2.3.4.4 RPPL SKILL TEST—POWERED-LIFT CATEGORY

RESERVED

IS 2.3.4.5 RPPL SKILL TEST—AIRSHIP CATEGORY

(a) The skill test for the private pilot licence-airship category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
(i) Certificates and documents;
(ii) Weather information;
(iii) National airspace system;
(iv) Performance and limitations;
(v) Operation of systems;
(vi) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Preflight inspection;
(ii) Cockpit management;
(iii) Engine starting;
(iv) Unmasting and positioning for takeoff;
(v) Ground handling;
(vi) Before takeoff check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
(i) Radio communications and ATC light signals;
(ii) Traffic patterns;
(iii) Airport and runway markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
(i) Ground weigh-off;
(ii) Up-ship takeoff;
(iii) Wheel takeoff;
(iv) Approach and landing;
(v) Go-around.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
  (i) Straight-and-level flight;
  (ii) Ascents and descents;
  (iii) Level turns;
  (iv) In-flight weigh-off;
  (v) Manual pressure control;
  (vi) Static and dynamic trim.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:
  (i) Rectangular course;
  (ii) Turns around a point.

(7) Emergency operations, including the applicant's knowledge and performance of the following tasks:
  (i) Engine fire during flight;
  (ii) Envelope emergencies;
  (iii) Free ballooning;
  (iv) Ditching and emergency landing;
  (v) Systems and equipment malfunctions.

(8) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) Masting;
  (ii) Post-masting.

IS 2.3.4.6 RESERVED

IS 2.3.4.7 RESERVED

IS 2.3.5 PRIVATE PILOT LICENCE

IS 2.3.5.2 PPL SKILL TEST — AEROPLANE CATEGORY

The skill test for the single-engine and multi-engine private pilot licence –aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
  (i) Licences and documents;
  (ii) Airworthiness requirements;
  (iii) Weather information;
  (iv) Cross-country flight planning;
  (v) National airspace system;
  (vi) Performance and limitations;
  (vii) Operation of system;
  (viii) Principles of flight;
  (ix) Water and Seaplane Characteristics (S);

(x) Seaplane bases, maritime rules and aids to marine navigation (S);

(xi) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting;

(iv) Taxiing (L);

(v) Taxiing and Sailing (S);

(vi) Before takeoff check.

(3) Aerodrome and seaplane operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach and landing;

(iii) Soft-field takeoff and climb (SE) (L);

(iv) Soft-field approach and landing (SE) (L);

(v) Short-field (Confined area (S)) takeoff and maximum performance climb;

(vi) Short-field approach (Confined area (S)) and landing;

(vii) Glassy Water takeoff and climb (S);

(viii) Glassy water approach and landing (S);

(ix) Rough water takeoff and climb (S);

(x) Rough water approach and landing (S);

(xi) Forward slip to a landing (SE);

(xii) Go-around/rejected landing.

(5) Performance manoeuvre, including the applicant's knowledge and performance of the following task:

(i) Steep turns.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Rectangular course;

(ii) S-turns;

(iii) Turns around a point.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:

(i) Pilotage and dead reckoning;

(ii) Navigation systems and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-off stalls;

(iii) Power-on stalls;

(iv) Spin awareness.

(9) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight;

(vi) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks:

(10) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing;

(ii) Emergency descent (ME);

(iii) Engine failure during takeoff before minimum controllable airspeed (VMC) (simulated) (ME);

(iv) Engine failure after lift-off (simulated) (ME);

(v) Approach and landing with an inoperative engine (simulated) (ME);

(vi) Systems and equipment malfunctions;

(vii) Emergency equipment and survival gear.

(11) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring with one engine inoperative;

(ii) VMC demonstration;

(iii) Engine failure during flight (by reference to instruments);

(iv) Instrument approach – one engine inoperative (by reference to instruments).

(12) Night operation, including the applicant's knowledge and performance of the following task:

(i) Night preparation.

(13) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing, parking and securing;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Ramping/Beaching (S).

IS 2.3.5.3 PPL SKILL TEST—HELICOPTER CATEGORY

The skill test for the private pilot licence -helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) National airspace system;

(v) Performance and limitations;

(vi) Operation of system;

(vii) Minimum equipment list;

(viii) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting and rotor engagement;

(iv) Before takeoff check.

(3) Aerodrome and heliport operations, including the applicant's knowledge and performance of the following tasks;

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and heliport markings and lighting.

(4) Hovering manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Vertical takeoff and landing;

(ii) Slope operations;

(iii) Surface taxi;

(iv) Hover taxi;

(v) Air taxi.

(5) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach;

(iii) Maximum performance takeoff and climb.

(iv) Steep approach;

(v) Rolling takeoff;

(vi) Shallow approach and running/roll-on landing;

(vii) Go-around.

(6) Performance manoeuvre, including the applicant's knowledge and performance of the following tasks:

(i) Rapid deceleration;

(ii) Straight in autorotation.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:

(i) Pilotage and dead reckoning;

(ii) Radio navigation and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Systems and equipment malfunctions;

(iv) Settling-with-power;

(v) Low rotor RPM recovery;

(vi) Dynamic rollover;

(vii) Ground resonance;

(viii) Low G conditions;

(ix) Emergency equipment and survival gear.

(9) Night operation, including the applicant's knowledge and performance of the following tasks:

(i) Physiological aspects of night flying;

(ii) Lighting and equipment for night flying.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing and securing.

IS 2.3.5.4 PPL SKILL TEST—POWERED-LIFT CATEGORY

Reserved.

IS 2.3.5.5 PPL SKILL TEST—AIRSHIP CATEGORY

The skill test for the private pilot licence-airship category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
- (i) Certificates and documents;
- (ii) Weather information;
- (iii) Cross-country flight planning;
- (iv) National airspace system;
- (v) Performance and limitations;
- (vi) Operation of systems;
- (vii) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
- (i) Preflight inspection;
- (ii) Cockpit management;
- (iii) Engine starting;
- (iv) Unmasting and positioning for takeoff;
- (v) Ground handling;
- (vi) Before takeoff check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
- (i) Radio communications and ATC light signals;
- (ii) Traffic patterns;
- (iii) Airport and runway markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
- (i) Ground weigh-off;
- (ii) Up-ship takeoff;
- (iii) Wheel takeoff;
- (iv) Approach and landing;
- (v) Go-around.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
- (i) Straight-and-level flight;
- (ii) Ascents and descents;
- (iii) Level turns;
- (iv) In-flight weigh-off;
- (v) Manual pressure control;
- (vi) Static and dynamic trim.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks:
- (i) Rectangular course;
- (ii) Turns around a point.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:
  (i) Pilotage and dead reckoning;
  (ii) Navigation systems and radar services;
  (iii) Diversion;
  (iv) Lost procedures.
(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:
  (i) Engine fire during flight;
  (ii) Envelope emergencies;
  (iii) Free ballooning;
  (iv) Ditching and emergency landing;
  (v) Systems and equipment malfunctions.
(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) Masting;
  (ii) Post-masting.

IS 2.3.5.6 RESERVED

IS 2.3.5.7 RESERVED

IS 2.3.6 COMMERCIAL PILOT LICENCE

IS 2.3.6.2 CPL SKILL TEST—AEROPLANE CATEGORY

The skill test for the single-engine and multi-engine commercial pilot licence - aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine; when (ME) is indicated, the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
  (i) Licences and documents;
  (ii) Airworthiness requirements;
  (iii) Weather information;
  (iv) Cross-country flight planning;
  (v) National airspace system;
  (vi) Performance and limitations;
  (vii) Operation of system;
  (viii) Principles of flight (ME);
  (ix) Water and Seaplane characteristics (S);
  (x) Seaplane bases, maritime rules and aids to marine navigation (S);
  (xi) Aeromedical factors.
(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) Preflight inspection;
  (ii) Cockpit management;

(iii) Engine Starting;

(iv) Taxiing (L);

(v) Taxiing and sailing (S);

(vi) Before takeoff check.

(3) Aerodrome and seaplane base operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome/Seaplane base, runway and taxiway signs, markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Normal and crosswind approach and landing;

(iii) Soft-field takeoff and climb (SE);

(iv) Soft-field approach and landing (SE);

(v) Short-field (Confined area (S)) takeoff and maximum performance climb;

(vi) Short-field (Confined area (S)) approach and landing;

(vii) Glassy water takeoff and climb (S);

(viii) Glassy water approach and landing (S);

(ix) Rough water takeoff and climb (S);

(x) Rough water approach and landing (S);

(xi) Power-off 180 degrees accuracy approach and landing (SE);

(xii) Go-around/rejected landing.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Steep turns;

(ii) Steep spiral (SE);

(iii) Chandelles (SE);

(iv) Lazy eights (SE).

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following task:

(i) Eights on pylons (SE).

(7) Navigation, including the applicant's knowledge and performance of the following tasks:

(i) Pilotage and dead reckoning;

(ii) Navigation systems and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-off stalls;

(iii) Power-on stalls;

(iv) Spin awareness.

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing;

(ii) Emergency descent (ME);

(iii) Engine failure during takeoff before VMC (simulated) (ME);

(iv) Engine failure after lift-off (simulated) (ME);

(v) Approach and landing with an inoperative engine (simulated) (ME);

(vi) Systems and equipment malfunctions;

(vii) Emergency equipment and survival gear.

(10) High altitude operations, including the applicant's knowledge and performance of the following tasks:

(i) Supplemental oxygen;

(ii) Pressurisation.

(11) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring with one engine inoperative;

(ii) VMC demonstration;

(iii) Engine failure during flight (by reference to instruments);

(iv) Instrument approach – one engine inoperative (by reference to instruments).

(12) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing, parking and securing;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Ramping/beaching (S).

IS 2.3.6.3 CPL SKILL TEST—HELICOPTER CATEGORY

The skill test for the commercial pilot licence – helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) National airspace system;

(v) Performance and limitations;

(vi) Operation of system;

(vii) Minimum equipment list;

(viii) Aeromedical factors;

(ix) Physiological aspects of night flying;

(x) Lighting and equipment for night flying.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine Starting and rotor engagement;

(iv) Before takeoff check.

(3) Aerodrome and heliport operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and heliport markings and lighting.

(4) Hovering manoeuvres, including the applicant's knowledge and performance of the following tasks:
  (i) Vertical takeoff and landing;
  (ii) Slope operations;
  (iii) Surface taxi;
  (iv) Hover taxi;
  (v) Air taxi.

(5) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
  (i) Normal and crosswind takeoff and climb;
  (ii) Normal and crosswind approach and landing;
  (iii) Maximum performance takeoff and climb;
  (iv) Steep approach;
  (v) Rolling takeoff;
  (vi) Shallow approach and running/roll-on landing;
  (vii) Go-around.

(6) Performance manoeuvre, including the applicant's knowledge and performance of the following tasks:
  (i) Rapid deceleration;
  (ii) 180 Degrees autorotation.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:
  (i) Pilotage and dead reckoning;
  (ii) Radio navigation and radar services;
  (iii) Diversion;
  (iv) Lost procedures.

(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:
  (i) Power failure at a hover;
  (ii) Power failure at altitude;
  (iii) Systems and equipment malfunctions;
  (iv) Settling-with-power;
  (v) Low rotor RPM recovery;
  (vi) Dynamic rollover;
  (vii) Ground resonance;
  (viii) Low G conditions;
  (ix) Emergency equipment and survival gear.

(9) Special operations, including the applicant's knowledge and performance of the following tasks:
  (i) Confined area operation;
  (ii) Pinnacle/platform operations.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
  (i) After landing, parking and securing.

IS 2.3.6.4 CPL SKILL TEST—POWERED-LIFT CATEGORY

Reserved.

IS 2.3.6.5 CPL SKILL TEST—AIRSHIP CATEGORY

The skill test for the commercial pilot licence –airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Technical subjects, including the applicant's knowledge and performance of the following tasks:
- (i) Aeromedical factors;
- (ii) Visual scanning and collision avoidance;
- (iii) Use of distractions during flight training;
- (iv) Principles of flight;
- (v) Airship weigh-off, ballast, and trim;
- (vi) Night operations;
- (vii) Regulations and publications;
- (viii) National airspace system;
- (ix) Logbook entries and licence endorsement.

(2) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
- (i) Licences and documents;
- (ii) Weather information;
- (iii) Cross-country flight planning;
- (iv) Performance and limitations;
- (v) Operations of systems.

(3) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:
- (i) Manoeuvre lesson.

(4) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
- (i) Preflight inspection;
- (ii) Cockpit management;
- (iii) Engine starting;
- (iv) Unmasting and positioning for takeoff;
- (v) Ground handling;
- (vi) Before takeoff check.

(5) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
- (i) Radio communications;
- (ii) Traffic pattern operations;
- (iii) Aerodrome, runway, and taxiway markings and lighting.

(6) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
- (i) Flight to, from, and at pressure height;
- (ii) In-flight weigh-off;
- (iii) Manual pressure control;
- (iv) Static and dynamic trim.

(7) Navigation, including the applicant's knowledge and performance of the following tasks:
- (i) Pilotage and dead reckoning;
- (ii) Diversion;
- (iii) Lost procedures;
- (iv) Navigation systems and air traffic control radar services.

(8) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Aborted takeoff;
(ii) Engine failure during takeoff;
(iii) Engine failure during flight;
(iv) Engine fire during flight;
(v) Envelope emergencies;
(vi) Free ballooning;
(vii) Ditching and emergency landing;
(viii) Systems and equipment malfunctions.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Masting;
(ii) Post-masting.

IS 2.3.6.6 RESERVED

IS 2.3.6.7 RESERVED

IS 2.3.7 MULTI-CREW PILOT LICENCE

IS 2.3.7.2 MULTI-CREW PILOT LICENCE SKILL TEST – AEROPLANE CATEGORY

The skill test for the multi-crew pilot licence shall determine that the applicant, as pilot flying and pilot not flying, possesses the required skills in the following competency areas to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with at least two pilots under VFR and IFR:

(1) Apply threat and error management principles;
(2) Perform aeroplane ground operations;
(3) Perform take-off;
(4) Perform climb;
(5) Perform cruise;
(6) Perform descent;
(7) Perform approach;
(8) Perform landing, and perform after-landing and aeroplane post-flight operations.

IS 2.3.8 AIRLINE TRANSPORT PILOT LICENCE

IS 2.3.8.2 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—AEROPLANE CATEGORY

The skill test for the airline transport pilot licence - aeroplanes shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks;
(i) Equipment examination;
(ii) Performance and limitations.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Preflight inspection;
(ii) Powerplant start;

(iii) Taxiing;

(iv) Before takeoff checks.

(3) Takeoffs and departure phase, including the applicant's knowledge and performance of the following tasks:

(i) Normal takeoffs with different flap settings, including expedited takeoff;

(ii) Instrument takeoff;

(iii) Powerplant failure during takeoff;

(iv) Rejected takeoff;

(v) Departure procedures.

(4) In-flight manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Steep turns;

(ii) Approach to stalls;

(iii) Powerplant failure;

(iv) Specific flight characteristics;

(v) Recovery from unusual altitudes.

(5) Instrument procedures, including the applicant's knowledge and performance of the following tasks:

(i) Standard terminal arrival/flight management system procedures;

(ii) Holding procedures;

(iii) Precision instrument approaches;

(iv) Non-precision instrument approaches;

(v) Circling approach;

(vi) Missed approach.

(6) Landings and approaches to landings, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind approaches and landings;

(ii) Landing from a precision approach;

(iii) Approach and landing with (simulated) powerplant failure;

(iv) Landing from a circling approach;

(v) Rejected landing;

(vi) Landing from a no-flap or a non-standard flap approach;

(vii) Normal and abnormal procedures.;

(viii) Emergency procedures.

(7) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) After landing procedures;

(ii) Parking and securing.

IS 2.3.8.3 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—HELICOPTER CATEGORY

The skill test for the airline transport pilot licence for helicopters shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

(1) Preflight preparations and checks, including the applicant's knowledge and performance of the following tasks:

(i) Equipment examination;

(ii) Performance and limitations.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection.

(ii) Powerplant start.
(iii) Taxiing;
(iv) Pre-takeoff checks.

(3) Takeoff and departure phase, including the applicant's knowledge and performance of the following tasks:
(i) Normal and crosswind takeoff;
(ii) Instrument takeoff;
(iii) Powerplant failure during takeoff;
(iv) Rejected takeoff;
(v) Instrument departure.

(4) In-flight manoeuvres, including the applicant's knowledge and performance of the following tasks:
(i) Steep turns;
(ii) Powerplant failure-multi-engine helicopter;
(iii) Powerplant failure-single-engine helicopter;
(iv) Recovery from unusual altitudes;
(v) Settling with power.

(5) Instrument procedures, including the applicant's knowledge and performance of the following tasks;
(i) Instrument arrival;
(ii) Holding;
(iii) Precision instrument approaches;
(iv) Non-precision instrument approaches;
(v) Missed approach.

(6) Landings and approaches to landings, including the applicant's knowledge and performance of the following tasks:
(i) Normal and crosswind approaches and landings;
(ii) Approach and landing with simulated powerplant failure-multiengine helicopter;
(iii) Rejected landing.

(7) Normal and abnormal procedures, including the applicant's knowledge and performance.

(8) Emergency procedures, including the applicant's knowledge and performance.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:
(i) After landing procedures;
(ii) Parking and securing.

IS 2.3.8.4 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—POWERED-LIFT CATEGORY

Reserved.

IS 2.3.9 INSTRUMENT RATING

IS 2.3.9.2 INSTRUMENT RATING SKILL TEST AND PROFICIENCY CHECK

The skill test and proficiency check for the instrument rating shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:

Note: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

(1) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Weather information;

(ii) Cross-country flight planning.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Aircraft systems related to IFR operations;

(ii) Aircraft flight instruments and navigation equipment;

(iii) Instrument cockpit check.

(3) Air traffic control clearances and procedures, including the applicant's knowledge and performance of the following tasks:

(i) Air traffic control clearances;

(ii) Compliance with departure, en route and arrival procedures and clearances;

(iii) Holding procedures.

(4) Flight by reference to instruments, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Change of airspeed;

(iii) Constant airspeed climbs and descents;

(iv) Rate climbs and descents;

(v) Timed turns to magnetic compass headings;

(vi) Steep turns;

(vii) Recovery from unusual flight attitudes.

(5) Navigation systems, including the applicant's knowledge and performance of the following tasks:

(i) Intercepting and tracking navigational systems and DME Arcs;

(ii) Instrument approach procedures, including the applicant's knowledge and performance of the following tasks:

(A) Non-precision instrument approach.

(B) Precision ILS instrument approach.

(C) Missed approach.

(D) Circling approach.

(E) Landing from a straight-in or circling approach.

(6) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Loss of communications;

(ii) One engine inoperative during straight-and-level flight and turns (ME);

(iii) One engine inoperative – instrument approach (ME);

(iv) Loss of gyro attitude and/or heading indicators;

(7) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Checking instruments and equipment.

IS 2.3.10 INSTRUCTOR FOR PILOT LICENSING

IS 2.3.10.2 FLIGHT INSTRUCTOR SKILL TEST AND PROFICIENCY CHECK

(a) **Aeroplane Category.** The skill test and proficiency check for the flight instructor rating - aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category and class of aircraft:

Note 1: When (SE) is indicated the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.

(1) Fundamentals of instruction, including the applicant's knowledge and performance of the following tasks:

- (i) The learning process;
- (ii) The teaching process;
- (iii) Teaching methods;
- (iv) Evaluation;
- (v) Flight instructor characteristics and responsibilities;
- (vi) Human factors;
- (vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

- (i) Aeromedical factors;
- (ii) Visual Scanning and collision avoidance;
- (iii) Principles of flight;
- (iv) Aeroplane flight controls;
- (v) Aeroplane weight and balance;
- (vi) Navigation and flight planning;
- (vii) Night operations;
- (viii) High altitude operations;
- (ix) Regulations and publications;
- (x) Use of minimum equipment list;
- (xi) National airspace system;
- (xii) Navigation aids and radar services;
- (xiii) Logbook entries and licence endorsements;
- (xiv) Water and seaplane characteristics (S);
- (xv) Seaplane bases, rules and aids to marine navigation (S).

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

- (i) Licences and documents;
- (ii) Weather information;
- (iii) Operation of systems (SE);
- (iv) Performance and limitations (SE);
- (v) Airworthiness requirements.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:

- (i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

- (i) Preflight inspection;
- (ii) Cockpit management;
- (iii) Engine starting;
- (iv) Taxiing (L);
- (v) Taxiing (S);

(vi) Sailing (S);

(vii) Before takeoff check.

(6) Aerodrome and seaplane base operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and runway markings and lighting.

(7) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Short field (Confined area (S)) takeoff and maximum performance climb;

(iii) Soft field takeoff and climb (SE);

(iv) Glassy water takeoff and climb (S);

(v) Rough water takeoff and climb (S);

(vi) Normal and crosswind approach and landing;

(vii) Slip to a landing (SE);

(viii) Go-around/rejected landing;

(ix) Short field (Confined area (S)) approach and landing;

(x) Soft field approach and landing (SEL);

(xi) Power-off 180 degrees accuracy approach and landing (SEL);

(xii) Glassy water approach and landing (S);

(xiii) Rough water approach and landing (S).

(8) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Level turns;

(iii) Straight climbs and climbing turns;

(iv) Straight descents and descending turns.

(9) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Steep turns;

(ii) Steep spirals (SE);

(iii) Chandelles (SE);

(iv) Lazy eights (SE).

(10) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks;

(i) Rectangular course;

(ii) S-turns across a road;

(iii) Turns around a point;

(iv) Eights on pylons (SE).

(11) Slow flight, stalls and spins, including the applicant's knowledge and performance of the following tasks:

(i) Manoeuvring during slow flight;

(ii) Power-on stalls (proficiency);

(iii) Power-off stalls (proficiency);

(iv) Crossed-control stalls (demonstration) (SE);

(v) Elevator trim stalls (demonstration) (SE);

(vi) Secondary stalls (demonstration) (SE);

(vii) Spins (SEL).

(12) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight attitudes.

(13) Emergency operations (SE), including the applicant's knowledge and performance of the following tasks:

(i) Emergency approach and landing (simulated);

(ii) Systems and equipment malfunctions;

(iii) Emergency equipment and survival gear.

(14) Emergency operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Systems and equipment malfunctions;

(ii) Engine failure during takeoff before VMC;

(iii) Engine failure after lift-off;

(iv) Approach and landing with an inoperative engine;

(v) Emergency descent;

(vi) Emergency equipment and survival gear.

(15) Multi-engine operations (ME), including the applicant's knowledge and performance of the following tasks:

(i) Operation of systems;

(ii) Performance and limitations;

(iii) Flight principles – engine inoperative;

(iv) Manoeuvring with one engine inoperative;

(v) VMC demonstration;

(vi) Demonstrating the effects of various airspeeds and configurations during engine inoperative performance.

(16) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Post-flight procedures;

(ii) Anchoring (S);

(iii) Docking and mooring (S);

(iv) Beaching (S);

(v) Ramping (S).

(b) **Helicopter Category.** The skill test and proficiency check for the flight instructor rating for helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable, class or type, of aircraft:

(1) Fundamentals of instruction, including the applicant's knowledge and performance of the following tasks:

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance;

(iii) Use of distractions during flight training;

(iv) Principles of flight;

(v) Helicopter flight controls;

(vi) Helicopter weight and balance;

(vii) Navigation and flight planning;

(viii) Night operations;

(ix) Regulations and publications;

(x) Use of minimum equipment list;

(xi) National airspace system;

(xii) Logbook entries and licence endorsements.

(3) Preflight preparation including the applicant's knowledge and performance of the following tasks:

(i) Licences and documents;

(ii) Weather information;

(iii) Operation of systems;

(iv) Performance and limitations;

(v) Airworthiness requirements.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:

(i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Preflight inspection;

(ii) Cockpit management;

(iii) Engine starting and rotor engagement;

(iv) Before takeoff check.

(6) Aerodrome operations and Heliport operations, including the applicant's knowledge and performance of the following tasks:

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and Heliport Markings and lighting.

(7) Hovering Manoeuvres. including the applicant's knowledge and performance of the following tasks:

(i) Vertical takeoff and landing;

(ii) Surface taxi;

(iii) Hover taxi;

(iv) Air taxi;

(v) Slope operation.

(8) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Normal and crosswind takeoff and climb;

(ii) Maximum performance takeoff and climb;

(iii) Rolling takeoff;

(iv) Normal and crosswind approach;

(v) Steep approach;

(vi) Shallow approach and running/roll-on landing;

(vii) Go-around.

(9) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Level turns;

(iii) Straight climbs and climbing turns;

(iv) Straight descents and descending turns.

(10) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:

(i) Rapid deceleration;

(ii) Straight-in autorotation;

(iii) 180 degrees autorotation.

(11) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Settling-with-power;

(iv) Low rotor RPM recovery;

(v) Antitorque system failure;

(vi) Dynamic rollover;

(vii) Ground resonance;

(viii) Low "G" conditions;

(ix) Systems and equipment malfunctions:

(x) Emergency equipment and survival gear.

(12) Special operations, including the applicant's knowledge and performance of the following tasks:

(i) Confined area operation;

(ii) Pinnacle/platform operation.

(13) Post-flight procedures, including the applicant's knowledge and performance of the following task:

(i) After-landing and securing.

(c) **Powered-lift Category.**

Reserved.

(d) **Airship Category**. The skill test and proficiency check for the flight instructor rating for airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:

(1) Fundamentals of instruction, including the applicant's knowledge and performance of the following tasks:

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance
(iii) Use of distractions during flight training;
(iv) Principles of flight;
(v) Airship weigh-off, ballast, and trim;
(vi) Night operations;
(vii) Regulations and publications;
(viii) National airspace system;
(ix) Logbook entries and licence endorsement.

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks:
(i) Licences and documents;
(ii) Weather information;
(iii) Cross-country flight planning;
(iv) Performance and limitations;
(v) Operations of systems.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's and performance of the following task:
(i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks:
(i) Preflight inspection;
(ii) Cockpit management;
(iii) Engine starting;
(iv) Unmasting and positioning for takeoff;
(v) Ground handling;
(vi) Before takeoff check.

(6) Aerodrome operations, including the applicant's knowledge and performance of the following tasks:
(i) Radio communications;
(ii) Traffic pattern operations;
(iii) Aerodrome, runway and taxiway markings and lighting.

(7) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks:
(i) Flight to, from, and at pressure height;
(ii) In-flight weigh-off;
(iii) Manual pressure control;
(iv) Static and dynamic trim.

(8) Navigation, including the applicant's knowledge and performance of the following tasks:
(i) Pilotage and dead reckoning;
(ii) Diversion;
(iii) Lost procedures;
(iv) Navigation systems and air traffic control radar services.

(9) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks:
(i) Straight-and level flight;
(ii) Constant airspeed climbs;
(iii) Constant airspeed descents;
(iv) Turns to headings;
(v) Recovery from unusual flight attitudes.

(10) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Aborted takeoff;

(ii) Engine failure during takeoff;

(iii) Engine failure during flight;

(iv) Engine fire during flight;

(v) Envelope emergencies;

(vi) Free ballooning;

(vii) Ditching and emergency landing;

(viii) Systems and equipment malfunctions.

(11) Post-flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Masting;

(ii) Post-masting.

(e) **Flight Instructor for Instrument Ratings (A, H, and PL).** The skill test and proficiency for the flight instructor for instrument ratings for aeroplane, helicopter and powered-lift shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable class, of aircraft:

Note 1: When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item and paragraph are for single-engine and multi-engine.

Note 2: When (A) is indicated, the item or paragraph is only for Aeroplane. When (H) is indicated, the item or paragraph is only for Helicopter. When nothing is indicated, the item and the paragraph are for all categories.

(1) Fundamentals of instructing, including the applicant's knowledge and performance of the following tasks:

(i) The learning process;

(ii) Human behaviour and effective communication;

(iii) The teaching process;

(iv) Teaching methods;

(v) Critique and evaluation;

(vi) Flight instructor characteristics and responsibilities;

(vii) Planning instructional activity.

(2) Technical subject areas, including the applicant's knowledge and performance of the following tasks:

(i) Aircraft flight instruments and navigation equipment;

(ii) Aeromedical factors;

(iii) Regulations and publications related to IFR operations;

(iv) Logbook entries related to instrument instruction.

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks:

(i) Weather information;

(ii) Cross-country flight planning;

(iii) Instrument cockpit check.

(4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task:

(i) Manoeuvre lesson.

(5) Air traffic control clearances and procedures, including the applicant's knowledge and performance of the following tasks:

(i) Air traffic control clearances;

(ii) Compliance with departure, en-route and arrival procedures and clearances.

(6) Flight by reference to instruments, including the applicant's knowledge and performance of the following tasks:

(i) Straight-and-level flight;

(ii) Turns;

(iii) Change of airspeed in straight-and-level and turning flight;

(iv) Constant airspeed climbs and descents;

(v) Constant rate climbs and descents;

(vi) Timed turns to magnetic compass headings;

(vii) Steep turns;

(viii) Recovery from unusual flight altitudes.

(7) Navigation systems, including the applicant's knowledge and performance of the following tasks:

(i) Intercepting and tracking navigational systems and DME Arcs;

(ii) Holding procedures.

(8) Instrument approach procedures, including the applicant's knowledge and performance of the following tasks:

(i) Non-precision instrument approach;

(ii) Precision instrument approach;

(iii) Missed approach;

(iv) Circling approach (A);

(v) Landing from a straight-in approach.

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks:

(i) Loss of communications;

(ii) Loss of gyro attitude and heading indicators;

(iii) Engine failure during straight-and-level flight and turns;

(iv) Instrument approach – one engine inoperative.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following task:

(i) Checking instruments and equipment.

(f) **Flight Instructor for Additional Type Ratings.** The skill test and proficiency checks for instructors for additional type ratings for aeroplane and helicopter shall include at least the following areas of operation:

Note: When (A) is indicated, the item or paragraph is only for Aeroplane. When (H) is indicated, the item or paragraph is only for Helicopter. When nothing is indicated, the item and the paragraph are for Aeroplane and Helicopter.

(1) Technical subject areas

(i) The content of the technical subject areas shall cover the areas as applicable to the aircraft class or type.

(ii) Flight simulator, including the applicant's knowledge and performance of the following tasks:

(A) Use of checklist, setting of radios/navigation aids;

(B) Starting engines;

(C) Takeoff checks;

(D) Instrument takeoff, transition to instruments after lift off;

(E) Engine failure during take-off between V1 and V2 (A);

(F) Aborted takeoff prior to reaching V1 (A);

(G) High mach buffeting, specific flight characteristics (if necessary) (A);

(H) Takeoff with engine failure prior to TDP or DPATO or shortly after TDP or DPATO (H);

(I) Steep turns;

(J) Recovery from approach to stall/takeoff, clean landing configuration (A);

(K) Instrument approach to required minimum decision height or minimum descent height/altitude, manual one engine simulated inoperative during approach and landing or go-around (A);

(L) Instrument approach to required minimum decision height or minimum descent height/altitude, autopilot one engine simulated inoperative during approach and landing or go-around (H);

(M) Rejected landing and go-around;

(N) Crosswind landing.

(iii) Category II and III operations, if applicable, including the applicant's knowledge and performance of the following tasks:

(A) Precision approaches, automatic with auto-throttle and flight director go-around caused by aircraft or ground equipment deficiencies;

(B) Go-around caused by weather conditions;

(C) Go-around at DH caused by offset position from centerline;

(D) One of the CAT II/CAT III approaches must lead to a landing.

(iv) Aircraft, including the applicant's knowledge and performance of the following tasks:

(A) Familiarisation with controls during outside checks;

(B) Use of checklist, setting of radios and navigation aids, starting engines.

(C) Taxiing;

(D) Takeoff;

(E) Engine failure during takeoff short after V2, after reaching climb out attitude (A);

(F) Engine failure during takeoff short after TDP or DPATO after reaching climb out attitude (H);

(G) Other emergency procedures (if necessary);

(H) Instrument approaches to required minimum decision height, manual one engine out during approach and landing or go-around;

(I) One engine simulated inoperative go-around from required minimum decision height;

(J) One engine (critical) simulated inoperative landing.

IS 2.3.11 DESIGNATED PILOT EXAMINERS

IS 2.3.11.1 SKILL TEST FOR DESIGNATED PILOT EXAMINERS

(a) The skill test for initial designation of a pilot examiner, issuance of additional designations, and renewal of examiner designations shall contain both the appropriate oral questioning and aircraft or flight simulation training device performance in accordance with the applicable skill test for the aircraft category, and or class/type ratings as applicable.

(b) Methods of skill testing. The Authority inspector will choose one of the following methods to test an examiner pilot applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.

(1) The Authority inspector evaluates the pilot examiner applicant testing an actual pilot applicant for a licence or rating.

(i) The Authority will arrange for the pilot examiner applicant to conduct a skill test for an actual pilot applicant for a licence or rating appropriate to the examiner designation sought, and the Authority inspector will observe the test from within the aircraft.

(ii) The Authority inspector will evaluate the pilot examiner applicant's performance while the pilot examiner applicant evaluates the pilot applicant.

(iii) Any discussion between the pilot examiner applicant and the Authority inspector concerning the pilot examiner applicant's performance with the pilot applicant will be held in private.

(iv) At the conclusion of the skill test for the actual pilot licence or rating:

(A) If the applicant has passed the skill test, the pilot examiner applicant will fill out the appropriate documentation for the pilot applicant while the Authority inspector observes. The Authority inspector will sign any documentation needed.

(B) If the pilot applicant does not pass the skill test, the Authority inspector will complete and sign the appropriate document needed.

(2) The Authority inspector playing the role of pilot applicant for a skill test.

(i) The Authority inspector will play the role of a pilot applicant for a skill test appropriate to the type of designation the pilot examiner applicant is seeking.

(ii) If the Authority inspector answers a question incorrectly to test whether the pilot examiner applicant recognises an incorrect answer, the incorrect response must be obviously wrong.

(3) The Authority inspector gives a flight skill test to the pilot examiner applicant.

(i) The Authority inspector will test the pilot examiner applicant on selected manoeuvres in order to assess the pilot examiner applicant's flight proficiency and ability to evaluate a pilot applicant in accordance with the appropriate skill test.

(ii) The Authority inspector will evaluate the pilot examiner applicant's plan of action for completeness and efficiency.

IS 2.3.14 PILOT EXAMINATIONS DETAILS

IS 2.3.14.1 PILOT'S EXAMINATION AREAS, SUBJECTS, NUMBER OF QUESTIONS AND TIME ALLOWED

(a) The distribution of the areas, subjects, number of questions and time allowed in the examination is in accordance with the type of licence and instrument rating.

(b) This distribution, areas and subjects numbering shall be followed by the personnel in charge unless otherwise decided by the authority.

PRIVATE PILOT

Subject: Overall					
Theoretical knowledge examination					
Exam length, total number of questions and distribution of questions					
		PPL (A)	PPL (H)	Time allowed (hours)	
				PPL (A)	PPL (H)
Distribution of questions with regard to the topics of the syllabus					
010	Air Law and ATC Procedures	13	13	0:30	0:30
021	Aircraft general knowledge	17	17	0:30	0:30
030	Flight performance and planning	15	18	0:40	0:40
040	Human performance and limitations	12	12	0:20	0:20
050	Meteorology	12	12	0:20	0:20
061	Navigation	19	19	0:40	0:40
070	Operational procedures	10	12	0:20	0:20
081	Princeples of flight	12	16	0:20	0:30
091	Communications	12	12	0:20	0:20
Total questions		122	131		

ATPL, CPL, IR AND DISPATCHER

Subject: 010 - AIR LAW							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	0:45	0:45	0:45	0:45	1:00
Distribution of questions with regard to the topics of the syllabus							
010 01	3	2	3	2	XX	XX	3
010 02	2	2	2	2	XX	XX	2
010 03	1	1	1	1	XX	XX	1
010 04	2	2	2	2	1	1	2
010 05	8	8	8	8	8	8	8
010 06	7	4	3	4	7	7	7
010 07	5	3	3	3	5	5	5
010 08	2	2	2	2	2	2	2
010 09	6	4	4	4	6	6	6
010 10	2	1	1	1	XX	XX	2
010 11	2	2	2	2	XX	XX	2
010 12	2	1	1	1	XX	XX	2
010 13	2	1	1	1	XX	XX	2
Total questions	44	33	33	33	29	29	44

Subject: 021 - AIRCRAFT GENERAL KNOWLEDGE - AIRFRAME/SYSTEMS/POWER PLANT							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	2:00	1:30	XX	XX	2:00
Distribution of questions with regard to the topics of the syllabus							
021 01	4	2	4	2	XX	XX	4
021 02	4	4	4	2	XX	XX	4
021 03	5	3	4	3	XX	XX	5
021 04	5	6	4	2	XX	XX	5
021 05	7	4	6	3	XX	XX	7
021 06	5	4	4	2	XX	XX	5
021 07	4	4	2	2	XX	XX	4
021 08	6	4	4	4	XX	XX	6
021 09	6	6	6	4	XX	XX	6
021 10	6	14	6	8	XX	XX	6
021 11	20	6	20	13	XX	XX	20
021 12	4	2	2	2	XX	XX	4
021 13	4	2	XX	XX	XX	XX	4
021 14	XX	XX	1	1	XX	XX	XX
021 15	XX	XX	4	3	XX	XX	XX
021 16	XX	XX	6	5	XX	XX	XX
021 17	XX	XX	3	4	XX	XX	XX

Total questions	80	61	80	60	0	0	80

Subject: 022 - AIRCRAFT GENERAL KNOWLEDGE - INSTRUMENTATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:30	1:00	1:30	1:00	0:30	0:30	1:30
Distribution of questions with regard to the topics of the syllabus							
022 01	8	8	8	8	XX	XX	8
022 02	8	6	8	6	6	6	8
022 03	4	4	4	4	4	4	4
022 04	4	5	6	5	4	4	4
022 05	5	XX	3	XX	XX	XX	5
022 06	8	6	XX	XX	XX	XX	8
022 07	XX	XX	14	8	XX	XX	XX
022 08	3	2	XX	XX	XX	XX	3
022 09	2	XX	XX	XX	XX	XX	2
022 10	2	XX	XX	XX	XX	XX	2
022 11	4	XX	4	XX	XX	XX	4
022 12	6	4	6	4	3	3	6
022 13	4	4	5	4	3	3	4
022 14	1	XX	1	XX	XX	XX	1
022 15	1	XX	1	XX	XX	XX	1
Total questions	60	39	60	39	20	20	60

Subject: 031 - FLIGHT PERFORMANCE AND PLANNING - MASS AND BALANCE							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	1:00	1:00	1:00	XX	XX	1:00
Distribution of questions with regard to the topics of the syllabus							
031 01	3	3	3	3	XX	XX	3
031 02	5	5	5	5	XX	XX	5
031 03	5	5	5	5	XX	XX	5
031 04	5	5	5	5	XX	XX	5
031 05	5	5	5	5	XX	XX	5
031 06	2	2	2	2	XX	XX	2
Total questions	25	25	25	25	0	0	25

Subject: 032 - FLIGHT PERFORMANCE AND PLANNING - PERFORMANCE (AEROPLANES)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	XX	XX	XX	XX	1:00
Distribution of questions with regard to the topics of the syllabus							
032 01	5	5	XX	XX	XX	XX	5
032 02	10	10	XX	XX	XX	XX	10
032 03	10	10	XX	XX	XX	XX	10
032 04	10	XX	XX	XX	XX	XX	10
Total questions	35	25	0	0	0	0	35

Subject: 033 - FLIGHT PERFORMANCE AND PLANNING - FLIGHT PLANNING AND MONITORING							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	1:30	1:30	1:30	1:30	2:00
Distribution of questions with regard to the topics of the syllabus							
033 01	5	5	5	5	5	XX	5
033 02	10	XX	XX	XX	XX	10	10
033 03	10	10	10	10	10	5	10
033 04	8	8	8	8	8	8	8
033 05	5	5	5	5	5	5	5
033 06	5	5	5	5	5	5	5
Total questions	43	33	33	33	33	33	43

Subject: 034 - FLIGHT PERFORMANCE AND PLANNING - PERFORMANCE (HELICOPTER)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	XX	XX	1:00	0:45	XX	XX	XX
Distribution of questions with regard to the topics of the syllabus							
034 01	XX	XX	15	15	XX	XX	XX
034 02	XX	XX	5	5	XX	XX	XX
034 03	XX	XX	5	XX	XX	XX	XX
034 04	XX	XX	10	XX	XX	XX	XX
Total questions	0	0	35	20	0	0	0

Subject: 040 - HUMAN PERFORMANCE							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	1:00	0:45	0:45	0:45	1:00
Distribution of questions with regard to the topics of the syllabus							
040 01	2	1	2	1	1	1	2
040 02	33	26	33	26	26	26	33
040 03	13	9	13	9	9	9	13
Total questions	48	36	48	36	36	36	48

Subject: 050 - METEOROLOGY							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	2:00	1:30	1:30	1:30	2:00
Distribution of questions with regard to the topics of the syllabus							
050 01	11	9	11	9	9	9	11
050 02	11	6	11	6	6	6	11
050 03	4	4	4	4	4	4	4
050 04	7	6	7	6	6	6	7
050 05	3	3	3	3	3	3	3
050 06	7	7	7	7	7	7	7
050 07	6	2	6	2	2	2	6
050 08	8	3	8	3	3	3	8
050 09	11	9	11	9	9	9	11
050 10	16	14	16	14	14	14	16
Total questions	84	63	84	63	63	63	84

Subject: 061 - GENERAL NAVIGATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	2:00	1:30	2:00	1:30	XX	XX	2:00
Distribution of questions with regard to the topics of the syllabus							
061 01	12	7	12	7	XX	XX	12
061 02	4	4	4	4	XX	XX	4
061 03	14	12	14	12	XX	XX	14
061 04	16	11	16	11	XX	XX	16

061 05	14	11	14	11	XX	XX	14
Total questions	60	45	60	45	0	0	60

Subject: 062 - RADIO NAVIGATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:30	0:30	1:30	0:30	1:00	1:00	1:30
Distribution of questions with regard to the topics of the syllabus							
062 01	7	4	5	4	2	2	7
062 02	21	12	15	12	23	23	21
062 03	12	2	8	2	5	5	12
062 04	XX	XX	XX	XX	XX	XX	XX
062 05	15	XX	XX	XX	10	10	15
062 06	11	4	6	4	4	4	11
Total questions	66	22	34	22	44	44	66

Subject: 070 - OPERATIONAL PROCEDURE							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:15	0:45	1:00	0:45	XX	XX	1:15
Distribution of questions with regard to the topics of the syllabus							
070 01	25	18	18	14	XX	XX	25
070 02	20	12	14	12	XX	XX	20
070 03	XX	XX	6	4	XX	XX	XX
Total questions	45	30	38	30	0	0	45

Subject: 081 - PRINCIPLES OF FLIGHT (AEROPLANES)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	1:00	0:45	XX	XX	XX	XX	1:00
Distribution of questions with regard to the topics of the syllabus							
081 01	17	14	XX	XX	XX	XX	17
081 02	6	XX	XX	XX	XX	XX	6
081 03	XX	XX	XX	XX	XX	XX	XX
081 04	6	6	XX	XX	XX	XX	6

081 05	4	3	XX	XX	XX	XX	4
081 06	3	3	XX	XX	XX	XX	3
081 07	4	3	XX	XX	XX	XX	4
081 08	4	4	XX	XX	XX	XX	4
Total questions	44	33	0	0	0	0	44

Subject: 082 - PRINCIPLES OF FLIGHT (HELICOPTERS)							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	XX	XX	1:00	1:00	XX	XX	XX
Distribution of questions with regard to the topics of the syllabus							
082 01	XX	XX	5	5	XX	XX	XX
082 02	XX	XX	3	3	XX	XX	XX
082 03	XX	XX	1	1	XX	XX	XX
082 04	XX	XX	12	12	XX	XX	XX
082 05	XX	XX	10	10	XX	XX	XX
082 06	XX	XX	5	5	XX	XX	XX
082 07	XX	XX	5	5	XX	XX	XX
082 08	XX	XX	3	3	XX	XX	XX
Total questions	0	0	44	44	0	0	0

Subject: 091 - VFR COMMUNICATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	0:30	0:30	0:30	0:30	XX	XX	0:30
Distribution of questions with regard to the topics of the syllabus							
091 01	5	5	5	5	XX	XX	5
091 02	11	11	11	11	XX	XX	11
091 03	2	2	2	2	XX	XX	2
091 04	2	2	2	2	XX	XX	2
091 05	2	2	2	2	XX	XX	2
091 06	2	2	2	2	XX	XX	2
Total questions	24	24	24	24	0	0	24

Subject: 092 - IFR COMMUNICATION							
Theoretical knowledge examination							
Exam length, total number of questions and distribution of questions							
	ATPL (A)	CPL (A)	ATPL (H)	CPL (H)	IR (A)	IR (H)	DSP
Time allowed (hours)	0:30	XX	XX	XX	0:30	0:30	0:30
Distribution of questions with regard to the topics of the syllabus							
092 01	5	XX	XX	XX	5	5	5
092 02	11	XX	XX	XX	11	11	11
092 03	2	XX	XX	XX	2	2	2
092 04	2	XX	XX	XX	2	2	2
092 05	2	XX	XX	XX	2	2	2
092 06	2	XX	XX	XX	2	2	2
092 07	XX	XX	XX	XX	XX	XX	XX
Total questions	24	0	0	0	24	24	24

IS 2.6.1 AIRCRAFT MAINTENANCE LICENCE

IS 2.6.1.7 BASIC KNOWLEDGE REQUIREMENTS

1. Knowledge levels for Category A, B1, B2, B3 and C Aircraft Maintenance Licence

Basic knowledge for categories A, B1, B2 and B3 are indicated by knowledge levels (1, 2 or 3) against each applicable subject. Category C applicants shall meet either the category B1 or the category B2 basic knowledge levels.

The knowledge level indicators are defined on 3 levels as follows:

LEVEL 1*: A familiarisation with the principal elements of the subject.*

Objectives:

1. The applicant should be familiar with the basic elements of the subject.
2. The applicant should be able to give a simple description of the whole subject, using common words and examples.
3. The applicant should be able to use typical terms.

LEVEL 2*: A general knowledge of the theoretical and practical aspects of the subject and an ability to apply that knowledge.*

Objectives:

1. The applicant should be able to understand the theoretical fundamentals of the subject.
2. The applicant should be able to give a general description of the subject using, as appropriate, typical examples.
3. The applicant should be able to use mathematical formulae in conjunction with physical laws describing the subject.
4. The applicant should be able to read and understand sketches, drawings and schematics describing the subject.
5. The applicant should be able to apply his knowledge in a practical manner using detailed procedures.

***LEVEL 3**: A detailed knowledge of the theoretical and practical aspects of the subject and a capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner.*

Objectives:

(1) The applicant should know the theory of the subject and interrelationships with other subjects.

(2) The applicant should be able to give a detailed description of the subject using theoretical fundamentals and specific examples.

(3) The applicant should understand and be able to use mathematical formulae related to the subject.

(4) The applicant should be able to read, understand and prepare sketches, simple drawings and schematics describing the subject.

(5) The applicant should be able to apply his knowledge in a practical manner using manufacturer's instructions.

(6) The applicant should be able to interpret results from various sources and measurements and apply corrective action where appropriate.

2. Modularisation

Qualification on basic subjects for each aircraft maintenance licence category or subcategory should be in accordance with the following matrix, where applicable subjects are indicated by an 'X':

Subject module	A or B1 aeroplane with:		A or B1 helicopter with:		B2	B3
	Turbine engine(s)	Piston engine(s)	Turbine engine(s)	Piston engine(s)	Avionics	Piston-engine non-pressurised aeroplanes 2 000 kg MTOM and below
1	X	X	X	X	X	X
2	X	X	X	X	X	X
3	X	X	X	X	X	X
4	X	X	X	X	X	X
5	X	X	X	X	X	X
6	X	X	X	X	X	X
7A	X	X	X	X	X	
7B						X
8	X	X	X	X	X	X
9A	X	X	X	X	X	
9B						X
10	X	X	X	X	X	X
11A	X					
11B		X				

11C						X
12			X	X		
13					X	
14					X	
15	X		X			
16		X		X		X
17A	X	X				
17B						X

MODULE 1. MATHEMATICS

	LEVEL			
	A	B1	B2	B3
1.1 **Arithmetic** Arithmetical terms and signs, methods of multiplication and division, fractions and decimals, factors and multiples, weights, measures and conversion factors, ratio and proportion, averages and percentages, areas and volumes, squares, cubes, square and cube roots.	1	2	2	2
1.2 **Algebra** (a) Evaluating simple algebraic expressions, addition, subtraction, multiplication and division, use of brackets, simple algebraic fractions;	1	2	2	2
(b) Linear equations and their solutions; Indices and powers, negative and fractional indices; Binary and other applicable numbering systems; Simultaneous equations and second degree equations with one unknown; Logarithms.	—	1	1	1
1.3 **Geometry** (a) Simple geometrical constructions;	—	1	1	1
(b) Graphical representation; nature and uses of graphs, graphs of equations/functions;	2	2	2	2
(c) Simple trigonometry; trigonometrical relationships, use of tables and rectangular and polar coordinates.	—	2	2	2

MODULE 2. PHYSICS

	LEVEL			
	A	B1	B2	B3

2.1 **Matter** Nature of matter: the chemical elements, structure of atoms, molecules; Chemical compounds; States: solid, liquid and gaseous; Changes between states. 2.2 **Mechanics** 2.2.1 *Statics* Forces, moments and couples, representation as vectors;	1 1	1 2	1 1	1 1

	LEVEL			
	A	B1	B2	B3

Centre of gravity; Elements of theory of stress, strain and elasticity: tension, compression, shear and torsion; Nature and properties of solid, fluid and gas; Pressure and buoyancy in liquids (barometers).				
2.2.2 *Kinetics* Linear movement: uniform motion in a straight line, motion under constant acceleration (motion under gravity); Rotational movement: uniform circular motion (centrifugal/centripetal forces); Periodic motion: pendular movement; Simple theory of vibration, harmonics and resonance; Velocity ratio, mechanical advantage and efficiency.	1	2	1	1
2.2.3 *Dynamics* (a) Mass; Force, inertia, work, power, energy (potential, kinetic and total energy), heat, efficiency;	1	2	1	1
(b) Momentum, conservation of momentum; Impulse; Gyroscopic principles; Friction: nature and effects, coefficient of friction (rolling resistance).	1	2	2	1
2.2.4 *Fluid dynamics* (a) Specific gravity and density;	2	2	2	2
(b) Viscosity, fluid resistance, effects of streamlining; Effects of compressibility on fluids; Static, dynamic and total pressure: Bernoulli's Theorem, venturi.	1	2	1	1
2.3 **Thermodynamics** (a) Temperature: thermometers and temperature scales: Celsius, Fahrenheit and Kelvin; Heat definition;	2	2	2	2

	LEVEL			
	A	B1	B2	B3

(b) Heat capacity, specific heat; Heat transfer: convection, radiation and conduction; Volumetric expansion; First and second law of thermodynamics; Gases: ideal gases laws; specific heat at constant volume and constant pressure, work done by expanding gas; Isothermal, adiabatic expansion and compression, engine cycles, constant volume and constant pressure, refrigerators and heat pumps; Latent heats of fusion and evaporation, thermal energy, heat of combustion.	—	2	2	1
2.4 **Optics (Light)** Nature of light; speed of light; Laws of reflection and refraction: reflection at plane surfaces, reflection by spherical mirrors, refraction, lenses; Fibre optics.	—	2	2	—
2.5 **Wave Motion and Sound** Wave motion: mechanical waves, sinusoidal wave motion, interference phenomena, standing waves; Sound: speed of sound, production of sound, intensity, pitch and quality, Doppler effect.	—	2	2	—

MODULE 3. ELECTRICAL FUNDAMENTALS

	LEVEL			
	A	B1	B2	B3
3.1 **Electron Theory** Structure and distribution of electrical charges within: atoms, molecules, ions, compounds; Molecular structure of conductors, semiconductors and insulators.	1	1	1	1
3.2 **Static Electricity and Conduction** Static electricity and distribution of electrostatic charges; Electrostatic laws of attraction and repulsion; Units of charge, Coulomb's Law; Conduction of electricity in solids, liquids, gases and a vacuum.	1	2	2	1

	LEVEL			
	A	B1	B2	B3

3.3 **Electrical Terminology** The following terms, their units and factors affecting them: potential difference, electromotive force, voltage, current, resistance, conductance, charge, conventional current flow, electron flow.	1	2	2	1
3.4 **Generation of Electricity** Production of electricity by the following methods: light, heat, friction, pressure, chemical action, magnetism and motion.	1	1	1	1
3.5 **DC Sources of Electricity** Construction and basic chemical action of: primary cells, secondary cells, lead acid cells, nickel cadmium cells, other alkaline cells; Cells connected in series and parallel; Internal resistance and its effect on a battery; Construction, materials and operation of thermo-couples; Operation of photo-cells.	1	2	2	2
3.6 **DC Circuits** Ohms Law, Kirchoff's Voltage and Current Laws; Calculations using the above laws to find resistance, voltage and current; Significance of the internal resistance of a supply.	—	2	2	1
3.7 **Resistance/Resistor** (a) Resistance and affecting factors; Specific resistance; Resistor colour code, values and tolerances, preferred values, wattage ratings; Resistors in series and parallel; Calculation of total resistance using series, parallel and series parallel combinations; Operation and use of potentiometers and rheostats; Operation of Wheatstone Bridge;	—	2	2	1
(b) Positive and negative temperature coefficient conductance; Fixed resistors, stability, tolerance and limi-tations, methods of construction; Variable resistors, thermistors, voltage dependent resistors; Construction of potentiometers and rheostats; Construction of Wheatstone Bridge.	—	1	1	—

	LEVEL			
	A	B1	B2	B3

3.8 **Power** Power, work and energy (kinetic and potential); Dissipation of power by a resistor; Power formula; Calculations involving power, work and energy.	—	2	2	1
3.9 **Capacitance/Capacitor** Operation and function of a capacitor; Factors affecting capacitance area of plates, distance between plates, number of plates, dielectric and dielectric constant, working voltage, voltage rating; Capacitor types, construction and function; Capacitor colour coding; Calculations of capacitance and voltage in series and parallel circuits; Exponential charge and discharge of a capacitor, time constants; Testing of capacitors.	—	2	2	1
3.10 **Magnetism** (a) Theory of magnetism; Properties of a magnet; Action of a magnet suspended in the Earth's magnetic field; Magnetisation and demagnetisation; Magnetic shielding; Various types of magnetic material; Electromagnets construction and principles of operation; Hand clasp rules to determine: magnetic field around current carrying conductor;	—	2	2	1
(b) Magnetomotive force, field strength, magnetic flux density, permeability, hysteresis loop, retentivity, coercive force reluctance, saturation point, eddy currents; Precautions for care and storage of magnets.	—	2	2	1

	LEVEL			
	A	B1	B2	B3
3.11 **Inductance/Inductor** Faraday's Law; Action of inducing a voltage in a conductor moving in a magnetic field; Induction principles; Effects of the following on the magnitude of an induced voltage: magnetic field strength, rate of change of flux, number of conductor turns; Mutual induction; The effect the rate of change of primary current and mutual inductance has on induced voltage; Factors affecting mutual inductance: number of turns in coil, physical size of coil, permeability of coil, position of coils with respect to each other; Lenz's Law and polarity determining rules; Back emf, self induction; Saturation point; Principle uses of inductors.	—	2	2	1
3.12 **DC Motor/Generator Theory** Basic motor and generator theory; Construction and purpose of components in DC generator; Operation of, and factors affecting output and direction of current flow in DC generators; Operation of, and factors affecting output power, torque, speed and direction of rotation of DC motors; Series wound, shunt wound and compound motors; Starter Generator construction.	—	2	2	1
3.13 **AC Theory** Sinusoidal waveform: phase, period, frequency, cycle; Instantaneous, average, root mean square, peak, peak to peak current values and calculations of these values, in relation to voltage, current and power; Triangular/Square waves; Single/3 phase principles.	1	2	2	1

	LEVEL			
	A	B1	B2	B3
3.14 **Resistive (R), Capacitive (C) and Inductive (L) Circuits** Phase relationship of voltage and current in L, C and R circuits, parallel, series and series parallel; Power dissipation in L, C and R circuits; Impedance, phase angle, power factor and current calculations; True power, apparent power and reactive power calculations.	—	2	2	1
3.15 **Transformers** Transformer construction principles and operation; Transformer losses and methods for overcoming them; Transformer action under load and no-load conditions; Power transfer, efficiency, polarity markings; Calculation of line and phase voltages and currents; Calculation of power in a three phase system; Primary and Secondary current, voltage, turns ratio, power, efficiency; Auto transformers.	—	2	2	1
3.16 **Filters** Operation, application and uses of the following filters: low pass, high pass, band pass, band stop.	—	1	1	—
3.17 **AC Generators** Rotation of loop in a magnetic field and waveform produced; Operation and construction of revolving armature and revolving field type AC generators; Single phase, two phase and three phase alternators; Three phase star and delta connections advantages and uses; Permanent Magnet Generators.	—	2	2	1
3.18 **AC Motors** Construction, principles of operation and characteristics of: AC synchronous and induction motors both single and polyphase; Methods of speed control and direction of rotation; Methods of producing a rotating field: capacitor, inductor, shaded or split pole.	—	2	2	1

MODULE 4. ELECTRONIC FUNDAMENTALS

	LEVEL			
	A	B1	B2	B3
4.1 **Semiconductors**				
4.1.1 *Diodes* (a) Diode symbols; Diode characteristics and properties; Diodes in series and parallel; Main characteristics and use of silicon controlled rectifiers (thyristors), light emitting diode, photo conductive diode, varistor, rectifier diodes; Functional testing of diodes.	—	2	2	1
(b) Materials, electron configuration, electrical properties; P and N type materials: effects of impurities on conduction, majority and minority characters; PN junction in a semiconductor, development of a potential across a PN junction in unbiased, forward biased and reverse biased conditions; Diode parameters: peak inverse voltage, maximum forward current, temperature, frequency, leakage current, power dissipation; Operation and function of diodes in the following circuits: clippers, clampers, full and half wave rectifiers, bridge rectifiers, voltage doublers and triplers; Detailed operation and characteristics of the following devices: silicon controlled rectifier (thyristor), light emitting diode, Schottky diode, photo conductive diode, varactor diode, varistor, rectifier diodes, Zener diode.	—	—	2	—
4.1.2 *Transistors* (a) Transistor symbols; Component description and orientation; Transistor characteristics and properties.	—	1	2	1
(b) Construction and operation of PNP and NPN transistors; Base, collector and emitter configurations; Testing of transistors; Basic appreciation of other transistor types and their uses; Application of transistors: classes of amplifier (A, B, C); Simple circuits including: bias, decoupling, feedback and stabilisation; Multistage circuit principles: cascades, push-pull, oscillators, multivibrators, flip-flop circuits.	—	—	2	—

	LEVEL			
	A	B1	B2	B3
4.1.3 *Integrated Circuits* (a) Description and operation of logic circuits and linear circuits/operational amplifiers;	—	1	—	1
(b) Description and operation of logic circuits and linear circuits; Introduction to operation and function of an operational amplifier used as: integrator, differentiator, voltage follower, comparator; Operation and amplifier stages connecting methods: resistive capacitive, inductive (transformer), inductive resistive (IR), direct; Advantages and disadvantages of positive and negative feedback.	—	—	2	—
4.2 **Printed Circuit Boards** Description and use of printed circuit boards.	—	1	2	—
4.3 **Servomechanisms**				
(a) Understanding of the following terms: Open and closed loop systems, feedback, follow up, analogue transducers; Principles of operation and use of the following synchro system components/features: resolvers, differential, control and torque, transformers, inductance and capacitance transmitters;	—	1	—	—
(b) Understanding of the following terms: Open and closed loop, follow up, servomechanism, analogue, transducer, null, damping, feedback, deadband; Construction operation and use of the following synchro system components: resolvers, differential, control and torque, E and I transformers, inductance transmitters, capacitance transmitters, synchronous transmitters; Servomechanism defects, reversal of synchro leads, hunting.	—	—	2	—

MODULE 5. DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS

	LEVEL				
	A	B1-1 B1-3	B1-2 B1-4	B2	B3
5.1 **Electronic Instrument Systems** Typical systems arrangements and cockpit layout of electronic instrument systems.	1	2	2	3	1
5.2 **Numbering Systems** Numbering systems: binary, octal and hexadecimal; Demonstration of conversions between the decimal and binary, octal and hexadecimal systems and vice versa.	—	1	—	2	—
5.3 **Data Conversion** Analogue Data, Digital Data; Operation and application of analogue to digital, and digital to analogue converters, inputs and outputs, limitations of various types.	—	1	—	2	—
5.4 **Data Buses** Operation of data buses in aircraft systems, including knowledge of ARINC and other specifications. Aircraft Network/Ethernet.	—	2	—	2	—
5.5 **Logic Circuits** (a) Identification of common logic gate symbols, tables and equivalent circuits; Applications used for aircraft systems, schematic diagrams.	—	2	—	2	1
(b) Interpretation of logic diagrams.	—	—	—	2	—
5.6 **Basic Computer Structure** (a) Computer terminology (including bit, byte, software, hardware, CPU, IC, and various memory devices such as RAM, ROM, PROM); Computer technology (as applied in aircraft systems).	1	2	—	—	—
(b) Computer related terminology; Operation, layout and interface of the major components in a micro computer including their associated bus systems; Information contained in single and multi-address instruction words; Memory associated terms; Operation of typical memory devices; Operation, advantages and disadvantages of the various data storage systems.	—	—	—	2	—
5.7 **Microprocessors** Functions performed and overall operation of a microprocessor; Basic operation of each of the following microprocessor elements: control and processing unit, clock, register, arithmetic logic unit.	—	—	—	2	—

	LEVEL				
	A	B1-1 B1-3	B1-2 B1-4	B2	B3
5.8 **Integrated Circuits** Operation and use of encoders and decoders; Function of encoder types; Uses of medium, large and very large scale integration.	—	—	—	2	—
5.9 **Multiplexing** Operation, application and identification in logic diagrams of multiplexers and demultiplexers.	—	—	—	2	—
5.10 **Fibre Optics** Advantages and disadvantages of fibre optic data transmission over electrical wire propagation; Fibre optic data bus; Fibre optic related terms; Terminations; Couplers, control terminals, remote terminals; Application of fibre optics in aircraft systems.	—	1	1	2	—
5.11 **Electronic Displays** Principles of operation of common types of displays used in modern aircraft, including Cathode Ray Tubes, Light Emitting Diodes and Liquid Crystal Display.	—	2	1	2	1
5.12 **Electrostatic Sensitive Devices** Special handling of components sensitive to electrostatic discharges; Awareness of risks and possible damage, component and personnel anti-static protection devices.	1	2	2	2	1
5.13 **Software Management Control** Awareness of restrictions, airworthiness requirements and possible catastrophic effects of unapproved changes to software programmes.	—	2	1	2	1
5.14 **Electromagnetic Environment** Influence of the following phenomena on maintenance practices for electronic system: EMC-Electromagnetic Compatibility EMI-Electromagnetic Interference HIRF-High Intensity Radiated Field Lightning/lightning protection.	—	2	2	2	1

	LEVEL				
	A	B1-1 B1-3	B1-2 B1-4	B2	B3
5.15 **Typical Electronic/Digital Aircraft Systems** General arrangement of typical electronic/digital aircraft systems and associated BITE (Built In Test Equipment) such as: (a) *For B1 and B2 only:* ACARS-ARINC Communication and Addressing and Reporting System EICAS-Engine Indication and Crew Alerting System FBW-Fly-by-Wire FMS-Flight Management System IRS-Inertial Reference System; (b) *For B1, B2 and B3:* ECAM-Electronic Centralised Aircraft Monitoring EFIS-Electronic Flight Instrument System GPS-Global Positioning System TCAS-Traffic Alert Collision Avoidance System Integrated Modular Avionics Cabin Systems Information Systems.	—	2	2	2	1

MODULE 6. MATERIALS AND HARDWARE

	LEVEL			
	A	B1	B2	B3
6.1 **Aircraft Materials — Ferrous**				
(a) Characteristics, properties and identification of common alloy steels used in aircraft; Heat treatment and application of alloy steels.	1	2	1	2
(b) Testing of ferrous materials for hardness, tensile strength, fatigue strength and impact resistance.	—	1	1	1
6.2 **Aircraft Materials — Non-Ferrous**				
(a) Characteristics, properties and identification of common non-ferrous materials used in aircraft; Heat treatment and application of non-ferrous materials;	1	2	1	2
(b) Testing of non-ferrous material for hardness, tensile strength, fatigue strength and impact resistance.	—	1	1	1
6.3 **Aircraft Materials — Composite and Non-Metallic**				
6.3.1 *Composite and non-metallic other than wood and fabric*				
(a) Characteristics, properties and identification of common composite and non-metallic materials, other than wood, used in aircraft; Sealant and bonding agents;	1	2	2	2
(b) The detection of defects/deterioration in composite and non-metallic material; Repair of composite and non-metallic material.	1	2	—	2
6.3.2 *Wooden structures* Construction methods of wooden airframe structures; Characteristics, properties and types of wood and glue used in aeroplanes; Preservation and maintenance of wooden structure; Types of defects in wood material and wooden structures; The detection of defects in wooden structure; Repair of wooden structure.	1	2	—	2

	LEVEL			
	A	B1	B2	B3
6.3.3 *Fabric covering* Characteristics, properties and types of fabrics used in aeroplanes; Inspections methods for fabric; Types of defects in fabric; Repair of fabric covering.	1	2	—	2
6.4 **Corrosion**				
(a) Chemical fundamentals; Formation by, galvanic action process, microbiological, stress;	1	1	1	1
(b) Types of corrosion and their identification; Causes of corrosion; Material types, susceptibility to corrosion.	2	3	2	2
6.5 **Fasteners**				
6.5.1 *Screw threads* Screw nomenclature; Thread forms, dimensions and tolerances for standard threads used in aircraft; Measuring screw threads.	2	2	2	2
6.5.2 *Bolts, studs and screws* Bolt types: specification, identification and marking of aircraft bolts, international standards; Nuts: self locking, anchor, standard types; Machine screws: aircraft specifications; Studs: types and uses, insertion and removal; Self tapping screws, dowels.	2	2	2	2
6.5.3 *Locking devices* Tab and spring washers, locking plates, split pins, pal-nuts, wire locking, quick release fasteners, keys, circlips, cotter pins.	2	2	2	2
6.5.4 *Aircraft rivets* Types of solid and blind rivets: specifications and identification, heat treatment.	1	2	1	2

	LEVEL			
	A	B1	B2	B3
6.6 **Pipes and Unions**				
(a) Identification of, and types of rigid and flexible pipes and their connectors used in aircraft;	2	2	2	2
(b) Standard unions for aircraft hydraulic, fuel, oil, pneumatic and air system pipes.	2	2	1	2
6.7 **Springs**	—	2	1	1
Types of springs, materials, characteristics and applications.				
6.8 **Bearings**				
Purpose of bearings, loads, material, construction;	1	2	2	1
Types of bearings and their application.				
6.9 **Transmissions**				
Gear types and their application;	1	2	2	1
Gear ratios, reduction and multiplication gear systems, driven and driving gears, idler gears, mesh patterns;				
Belts and pulleys, chains and sprockets.				
6.10 **Control Cables**				
Types of cables;				
End fittings, turnbuckles and compensation devices;	1	2	1	2
Pulleys and cable system components;				
Bowden cables;				
Aircraft flexible control systems.				
6.11 **Electrical Cables and Connectors**				
Cable types, construction and characteristics;				
High tension and co-axial cables;	1	2	2	2
Crimping;				
Connector types, pins, plugs, sockets, insulators, current and voltage rating, coupling, identification codes.				

MODULE 7A. MAINTENANCE PRACTICES

Note: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 7B.

	LEVEL		
	A	B1	B2
7.1 **Safety Precautions-Aircraft and Workshop** Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.	3	3	3
7.2 **Workshop Practices** Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.	3	3	3
7.3 **Tools** Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods. Operation, function and use of electrical general test equipment.	3	3	3
7.4 **Avionic General Test Equipment** Operation, function and use of avionic general test equipment.	—	2	3
7.5 **Engineering Drawings, Diagrams and Standards** Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presen–tation; Specification 100 of the Air Transport Association (ATA) of America;	1	2	2

	LEVEL		
	A	B1	B2
Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.			
7.6 **Fits and Clearances** Drill sizes for bolt holes, classes of fits; Common system of fits and clearances; Schedule of fits and clearances for aircraft and engines; Limits for bow, twist and wear; Standard methods for checking shafts, bearings and other parts.	1	2	1
7.7 **Electrical Wiring Interconnection System (EWIS)** Continuity, insulation and bonding techniques and testing; Use of crimp tools: hand and hydraulic operated; Testing of crimp joints; Connector pin removal and insertion; Co-axial cables: testing and installation precautions; Identification of wire types, their inspection criteria and damage tolerance. Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding; EWIS installations, inspection, repair, maintenance and cleanliness standards.	1	3	3
7.8 **Riveting** Riveted joints, rivet spacing and pitch; Tools used for riveting and dimpling; Inspection of riveted joints.	1	2	—
7.9 **Pipes and Hoses** Bending and belling/flaring aircraft pipes; Inspection and testing of aircraft pipes and hoses; Installation and clamping of pipes.	1	2	—

	LEVEL		
	A	B1	B2
7.10 **Springs** Inspection and testing of springs.	1	2	—
7.11 **Bearings** Testing, cleaning and inspection of bearings; Lubrication requirements of bearings; Defects in bearings and their causes.	1	2	—
7.12 **Transmissions** Inspection of gears, backlash; Inspection of belts and pulleys, chains and sprockets; Inspection of screw jacks, lever devices, push-pull rod systems.	1	2	—
7.13 **Control Cables** Swaging of end fittings; Inspection and testing of control cables; Bowden cables; aircraft flexible control systems.	1	2	—
7.14 **Material handling** 7.14.1 *Sheet Metal* Marking out and calculation of bend allowance; Sheet metal working, including bending and forming; Inspection of sheet metal work.	—	2	—
7.14.2 *Composite and non-metallic* Bonding practices; Environmental conditions; Inspection methods.	—	2	—
7.15 **Welding, Brazing, Soldering and Bonding** (a) Soldering methods; inspection of soldered joints.	—	2	2

	LEVEL		
	A	B1	B2
(b) Welding and brazing methods; Inspection of welded and brazed joints; Bonding methods and inspection of bonded joints.	—	2	—
7.16 **Aircraft Weight and Balance**			
(a) Centre of Gravity/Balance limits calculation: use of relevant documents;	—	2	2
(b) Preparation of aircraft for weighing; Aircraft weighing.	—	2	—
7.17 **Aircraft Handling and Storage**	2	2	2
Aircraft taxiing/towing and associated safety precautions;			
Aircraft jacking, chocking, securing and associated safety precautions;			
Aircraft storage methods;			
Refuelling/defuelling procedures;			
De-icing/anti-icing procedures;			
Electrical, hydraulic and pneumatic ground supplies.			
Effects of environmental conditions on aircraft handling and operation.			
7.18 **Disassembly, Inspection, Repair and Assembly Techniques**			
(a) Types of defects and visual inspection techniques; Corrosion removal, assessment and reprotection;	2	3	3
(b) General repair methods, Structural Repair Manual; Ageing, fatigue and corrosion control programmes;	—	2	—
(c) Non-destructive inspection techniques including, penetrant, radiographic, eddy current, ultrasonic and boroscope methods;	—	2	1

	LEVEL		
	A	B1	B2
(d) Disassembly and re-assembly techniques;	2	2	2
(e) Trouble shooting techniques.	—	2	2
7.19 **Abnormal Events**			
(a) Inspections following lightning strikes and HIRF penetration;	2	2	2
(b) Inspections following abnormal events such as heavy landings and flight through turbulence.	2	2	—
7.20 **Maintenance Procedures**	1	2	2
Maintenance planning;			
Modification procedures;			
Stores procedures;			
Certification/release procedures;			
Interface with aircraft operation;			
Maintenance Inspection/Quality Control/Quality Assurance;			
Additional maintenance procedures;			
Control of life limited components.			

MODULE 7B. MAINTENANCE PRACTICES

Note: The scope of this module shall reflect the technology of aeroplanes relevant to the B3 category.

	LEVEL
	B3
7.1 **Safety Precautions-Aircraft and Workshop** Aspects of safe working practices including precautions to take when working with electricity, gases especially oxygen, oils and chemicals. Also, instruction in the remedial action to be taken in the event of a fire or another accident with one or more of these hazards including knowledge on extinguishing agents.	3
7.2 **Workshop Practices** Care of tools, control of tools, use of workshop materials; Dimensions, allowances and tolerances, standards of workmanship; Calibration of tools and equipment, calibration standards.	3
7.3 **Tools** Common hand tool types; Common power tool types; Operation and use of precision measuring tools; Lubrication equipment and methods; Operation, function and use of electrical general test equipment.	3
7.4 **Avionic General Test Equipment** Operation, function and use of avionic general test equipment.	—
7.5 **Engineering Drawings, Diagrams and Standards** Drawing types and diagrams, their symbols, dimensions, tolerances and projections; Identifying title block information; Microfilm, microfiche and computerised presentations; Specification 100 of the Air Transport Association (ATA) of America; Aeronautical and other applicable standards including ISO, AN, MS, NAS and MIL; Wiring diagrams and schematic diagrams.	2

	LEVEL
	B3
7.6 **Fits and Clearances**	2
Drill sizes for bolt holes, classes of fits;	
Common system of fits and clearances;	
Schedule of fits and clearances for aircraft and engines;	
Limits for bow, twist and wear;	
Standard methods for checking shafts, bearings and other parts.	
7.7 **Electrical Cables and Connectors**	2
Continuity, insulation and bonding techniques and testing;	
Use of crimp tools: hand and hydraulic operated;	
Testing of crimp joints;	
Connector pin removal and insertion;	
Co-axial cables: testing and installation precautions;	
Wiring protection techniques: Cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding.	
7.8 **Riveting**	2
Riveted joints, rivet spacing and pitch;	
Tools used for riveting and dimpling;	
Inspection of riveted joints.	
7.9 **Pipes and Hoses**	2
Bending and belling/flaring aircraft pipes;	
Inspection and testing of aircraft pipes and hoses;	
Installation and clamping of pipes.	
7.10 **Springs**	1
Inspection and testing of springs.	
7.11 **Bearings**	2
Testing, cleaning and inspection of bearings;	
Lubrication requirements of bearings;	
Defects in bearings and their causes.	
7.12 **Transmissions**	2
Inspection of gears, backlash;	
Inspection of belts and pulleys, chains and sprockets;	
Inspection of screw jacks, lever devices, push-pull rod systems.	

	LEVEL
	B3
7.13 **Control Cables**	2
Swaging of end fittings;	
Inspection and testing of control cables;	
Bowden cables; aircraft flexible control systems.	
7.14 **Material handling**	
7.14.1 *Sheet Metal*	2
Marking out and calculation of bend allowance;	
Sheet metal working, including bending and forming;	
Inspection of sheet metal work.	
7.14.2 *Composite and non-metallic*	2
Bonding practices;	
Environmental conditions;	
Inspection methods	
7.15 **Welding, Brazing, Soldering and Bonding**	
(a) Soldering methods; inspection of soldered joints;	2
(b) Welding and brazing methods; Inspection of welded and brazed joints; Bonding methods and inspection of bonded joints.	2
7.16 **Aircraft Weight and Balance**	
(a) Centre of Gravity/Balance limits calculation: use of relevant documents;	2
(b) Preparation of aircraft for weighing; Aircraft weighing.	2
7.17 **Aircraft Handling and Storage**	2
Aircraft taxiing/towing and associated safety precautions;	
Aircraft jacking, chocking, securing and associated safety precautions;	
Aircraft storage methods;	
Refuelling/defuelling procedures;	
De-icing/anti-icing procedures;	
Electrical, hydraulic and pneumatic ground supplies;	
Effects of environmental conditions on aircraft handling and operation.	

	LEVEL
	B3
7.18 **Disassembly, Inspection, Repair and Assembly Techniques**	
(a) Types of defects and visual inspection techniques; Corrosion removal, assessment and reprotection;	3
(b) General repair methods, Structural Repair Manual; Ageing, fatigue and corrosion control programmes;	2
(c) Non-destructive inspection techniques including, penetrant, radio-graphic, eddy current, ultrasonic and boroscope methods;	2
(d) Disassembly and re-assembly techniques;	2
(e) Trouble shooting techniques.	2
7.19 **Abnormal Events**	
(a) Inspections following lightning strikes and HIRF penetration.	2
(b) Inspections following abnormal events such as heavy landings and flight through turbulence.	2
7.20 **Maintenance Procedures**	2
Maintenance planning;	
Modification procedures;	
Stores procedures;	
Certification/release procedures;	
Interface with aircraft operation;	
Maintenance Inspection/Quality Control/Quality Assurance;	
Additional maintenance procedures;	
Control of life limited components.	

MODULE 8. BASIC AERODYNAMICS

	LEVEL			
	A	B1	B2	B3
8.1 **Physics of the Atmosphere** International Standard Atmosphere (ISA), application to aerodynamics.	1	2	2	1
8.2 **Aerodynamics** Airflow around a body; Boundary layer, laminar and turbulent flow, free stream flow, relative airflow, upwash and downwash, vortices, stagnation; The terms: camber, chord, mean aerodynamic chord, profile (parasite) drag, induced drag, centre of pressure, angle of attack, wash in and wash out, fineness ratio, wing shape and aspect ratio; Thrust, Weight, Aerodynamic Resultant; Generation of Lift and Drag: Angle of Attack, Lift coefficient, Drag coefficient, polar curve, stall; Aerofoil contamination including ice, snow, frost.	1	2	2	1
8.3 **Theory of Flight** Relationship between lift, weight, thrust and drag; Glide ratio; Steady state flights, performance; Theory of the turn; Influence of load factor: stall, flight envelope and structural limitations; Lift augmentation.	1	2	2	1
8.4 **Flight Stability and Dynamics** Longitudinal, lateral and directional stability (active and passive).	1	2	2	1

MODULE 9A. HUMAN FACTORS

Note: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 9B.

	LEVEL		
	A	B1	B2
9.1 **General**	1	2	2
The need to take human factors into account;			
Incidents attributable to human factors/human error;			
'Murphy's' law.			
9.2 **Human Performance and Limitations**	1	2	2
Vision;			
Hearing;			
Information processing;			
Attention and perception;			
Memory;			
Claustrophobia and physical access.			
9.3 **Social Psychology**	1	1	1
Responsibility: individual and group;			
Motivation and de-motivation;			
Peer pressure;			
'Culture' issues;			
Team working;			
Management, supervision and leadership.			
9.4 **Factors Affecting Performance**	2	2	2
Fitness/health;			
Stress: domestic and work related;			
Time pressure and deadlines;			
Workload: overload and underload;			
Sleep and fatigue, shiftwork;			
Alcohol, medication, drug abuse.			

	LEVEL		
	A	B1	B2
9.5 **Physical Environment** Noise and fumes; Illumination; Climate and temperature; Motion and vibration; Working environment.	1	1	1
9.6 **Tasks** Physical work; Repetitive tasks; Visual inspection; Complex systems.	1	1	1
9.7 **Communication** Within and between teams; Work logging and recording; Keeping up to date, currency; Dissemination of information.	2	2	2
9.8 **Human Error** Error models and theories; Types of error in maintenance tasks; Implications of errors (i.e. accidents); Avoiding and managing errors.	1	2	2
9.9 **Hazards in the Workplace** Recognising and avoiding hazards; Dealing with emergencies.	1	2	2

MODULE 9B. HUMAN FACTORS

Note: The scope of this module shall reflect the less demanding environment of maintenance for B3 licence holders.

	LEVEL
	B3
9.1 **General** The need to take human factors into account; Incidents attributable to human factors/human error; 'Murphy's' law.	2
9.2 **Human Performance and Limitations** Vision; Hearing; Information processing; Attention and perception; Memory; Claustrophobia and physical access.	2
9.3 **Social Psychology** Responsibility: individual and group; Motivation and de-motivation; Peer pressure; 'Culture' issues; Team working; Management, supervision and leadership.	1
9.4 **Factors Affecting Performance** Fitness/health; Stress: domestic and work related; Time pressure and deadlines; Workload: overload and underload; Sleep and fatigue, shiftwork; Alcohol, medication, drug abuse.	2
9.5 **Physical Environment** Noise and fumes; Illumination; Climate and temperature; Motion and vibration; Working environment.	1

	LEVEL
	B3
9.6 **Tasks**	1
Physical work;	
Repetitive tasks;	
Visual inspection;	
Complex systems.	
9.7 **Communication**	2
Within and between teams;	
Work logging and recording;	
Keeping up to date, currency;	
Dissemination of information.	
9.8 **Human Error**	2
Error models and theories;	
Types of error in maintenance tasks;	
Implications of errors (i.e. accidents);	
Avoiding and managing errors.	
9.9 **Hazards in the Workplace**	2
Recognising and avoiding hazards;	
Dealing with emergencies.	

MODULE 10. AVIATION LEGISLATION

	LEVEL			
	A	B1	B2	B3
10.1 **Regulatory Framework** Role of the International Civil Aviation Organisation; Role of the CCAA; Relationship between the various Annexes (Parts) such as , Part-5, Part-6, Part-2, Part-3and Part 9, Part 9	1	1	1	1
10.2 **Certifying Staff — Maintenance** Detailed understanding of Part-3	2	2	2	2
10.3 **Approved Maintenance Organisations** Detailed understanding of Part-6 and Part-5.	2	2	2	2
10.4 **Air operations** General understanding of PART 8 & 9 Air Operators Certificates; Operator's responsibilities, in particular regarding continuing airworthiness and maintenance; Aircraft Maintenance Programme; MEL//CDL; Documents to be carried on board; Aircraft placarding (markings).	1	1	1	1
10.5 **Certification of aircraft, parts and appliances**				
(a) *General* General understanding of Part 5 and the CCAA certification specifications.	—	1	1	1
(b) *Documents* Certificate of Airworthiness; restricted certificates of airworthiness and permit to fly; Certificate of Registration; Noise Certificate; Weight Schedule; Radio Station Licence and Approval.	—	2	2	2

	LEVEL			
	A	B1	B2	B3
10.6 **Continuing airworthiness** Detailed understanding of Part-5 provisions related to continuing airworthiness. Detailed understanding of Part-M.	2	2	2	2
10.7 **Applicable National and International Requirements for** (a) Maintenance Programmes, Maintenance checks and inspections; Airworthiness Directives; Service Bulletins, manufacturers service information; Modifications and repairs; Maintenance documentation: maintenance manuals, structural repair manual, illustrated parts catalogue, etc.; *Only for A to B2 licences:* Master Minimum Equipment Lists, Minimum Equipment List, Dispatch Deviation Lists;	1	2	2	2
(b) Continuing airworthiness; Minimum equipment requirements — Test flights;	—	1	1	1

MODULE 11A. TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

	LEVEL	
	A1	B1.1
11.1 **Theory of Flight**		
11.1.1. *Aeroplane Aerodynamics and Flight Controls*	1	2
Operation and effect of: — roll control: ailerons and spoilers, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, spoilers, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.		
11.1.2. *High Speed Flight*	1	2
Speed of sound, subsonic flight, transonic flight, supersonic flight; Mach number, critical Mach number, compressibility buffet, shock wave, aerodynamic heating, area rule; Factors affecting airflow in engine intakes of high speed aircraft; Effects of sweepback on critical Mach number.		
11.2 **Airframe Structures — General Concepts**		
(a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding.	2	2

	LEVEL	
	A1	B1.1
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	1	2
11.3 **Airframe Structures — Aeroplanes**		
11.3.1 *Fuselage (ATA 52/53/56)* Construction and pressurisation sealing; Wing, stabiliser, pylon and undercarriage attachments; Seat installation and cargo loading system; Doors and emergency exits: construction, mechanisms, operation and safety devices; Windows and windscreen construction and mechanisms.	1	2
11.3.2 *Wings (ATA 57)* Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	1	2
11.3.3 *Stabilisers (ATA 55)* Construction; Control surface attachment.	1	2
11.3.4 *Flight Control Surfaces (ATA 55/57)* Construction and attachment; Balancing — mass and aerodynamic.	1	2
11.3.5 *Nacelles/Pylons (ATA 54)* Nacelles/Pylons: — Construction, — Firewalls, — Engine mounts.	1	2
11.4 **Air Conditioning and Cabin Pressurisation (ATA 21)**		
11.4.1 *Air supply* Sources of air supply including engine bleed, APU and ground cart.	1	2

	LEVEL	
	A1	B1.1
11.4.2 *Air Conditioning* Air conditioning systems; Air cycle and vapour cycle machines; Distribution systems; Flow, temperature and humidity control system.	1	3
11.4.3 *Pressurisation* Pressurisation systems; Control and indication including control and safety valves; Cabin pressure controllers.	1	3
11.4.4 *Safety and warning devices* Protection and warning devices.	1	3
11.5 **Instruments/Avionic Systems** 11.5.1 *Instrument Systems (ATA 31)* Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.	1	2
11.5.2 *Avionic Systems* Fundamentals of system lay-outs and operation of: — Auto Flight (ATA 22), — Communications (ATA 23), — Navigation Systems (ATA 34).	1	1

	LEVEL	
	A1	B1.1
11.6 **Electrical Power (ATA 24)**		
Batteries Installation and Operation;	1	3
DC power generation;		
AC power generation;		
Emergency power generation;		
Voltage regulation;		
Power distribution;		
Inverters, transformers, rectifiers;		
Circuit protection;		
External/Ground power.		
11.7 **Equipment and Furnishings (ATA 25)**		
(a) Emergency equipment requirements;		
Seats, harnesses and belts.	2	2
(b) Cabin lay-out;		
Equipment lay-out;	1	1
Cabin Furnishing installation;		
Cabin entertainment equipment;		
Galley installation;		
Cargo handling and retention equipment;		
Airstairs.		
11.8 **Fire Protection (ATA 26)**		
(a) Fire and smoke detection and warning systems;	1	3
Fire extinguishing systems;		
System tests;		
(b) Portable fire extinguisher.	1	1

	LEVEL	
	A1	B1.1
11.9 **Flight Controls (ATA 27)** Primary controls: aileron, elevator, rudder, spoiler; Trim control; Active load control; High lift devices; Lift dump, speed brakes; System operation: manual, hydraulic, pneumatic, electrical, fly-by-wire; Artificial feel, Yaw damper, Mach trim, rudder limiter, gust lock systems; Balancing and rigging; Stall protection/warning system.	1	3
11.10 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Dumping, venting and draining; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling; Longitudinal balance fuel systems.	1	3
11.11 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical, pneumatic; Emergency pressure generation; Filters; Pressure Control; Power distribution; Indication and warning systems; Interface with other systems	1	3

	LEVEL	
	A1	B1.1
11.12 **Ice and Rain Protection (ATA 30)**	1	3
Ice formation, classification and detection;		
Anti-icing systems: electrical, hot air and chemical;		
De-icing systems: electrical, hot air, pneumatic and chemical;		
Rain repellent;		
Probe and drain heating;		
Wiper systems.		
11.13 **Landing Gear (ATA 32)**	2	3
Construction, shock absorbing;		
Extension and retraction systems: normal and emergency;		
Indications and warning;		
Wheels, brakes, antiskid and autobraking;		
Tyres;		
Steering;		
Air-ground sensing.		
11.14 **Lights (ATA 33)**	2	3
External: navigation, anti collision, landing, taxiing, ice;		
Internal: cabin, cockpit, cargo;		
Emergency.		
11.15 **Oxygen (ATA 35)**	1	3
System lay-out: cockpit, cabin;		
Sources, storage, charging and distribution;		
Supply regulation;		
Indications and warnings.		
11.16 **Pneumatic/Vacuum (ATA 36)**	1	3
System lay-out;		
Sources: engine/APU, compressors, reservoirs, ground supply;		
Pressure control;		
Distribution;		
Indications and warnings;		
Interfaces with other systems.		

	LEVEL	
	A1	B1.1
11.17 **Water/Waste (ATA 38)** Water system lay-out, supply, distribution, servicing and draining; Toilet system lay-out, flushing and servicing; Corrosion aspects.	2	3
11.18 **On Board Maintenance Systems (ATA 45)** Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).	1	2
11.19 **Integrated Modular Avionics (ATA42)** Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others: Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc. Core System; Network Components.	1	2
11.20 **Cabin Systems (ATA44)** The units and components which furnish a means of entertaining the passengers and providing communication within the aircraft (Cabin Inter–communication Data System) and between the aircraft cabin and ground stations (Cabin Network Service). Includes voice, data, music and video transmissions. The Cabin Intercommunication Data System provides an interface between cockpit/cabin crew and cabin systems. These systems support data exchange of the different related LRU's and they are typically operated via Flight Attendant Panels. The Cabin Network Service typically consists on a server, typically inter–facing with, among others, the following systems: — Data/Radio Communication, In-Flight Entertainment System. The Cabin Network Service may host functions such as: — Access to pre-departure/departure reports, — E-mail/intranet/Internet access, — Passenger database; Cabin Core System; In-flight Entertainment System; External Communication System; Cabin Mass Memory System; Cabin Monitoring System; Miscellaneous Cabin System.	1	2

	LEVEL	
	A1	B1.1
11.21 **Information Systems (ATA46)** The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display. Typical examples include Air Traffic and Information Management Systems and Network Server Systems Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.	1	2

MODULE 11B. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Note 1: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 11C.

Note 2: The scope of this Module shall reflect the technology of aeroplanes pertinent to the A2 and B1.2 subcategories.

	LEVEL	
	A2	B1.2
11.1 **Theory of Flight**		
11.1.1. *Aeroplane Aerodynamics and Flight Controls*	1	2
Operation and effect of: — roll control: ailerons and spoilers, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, spoilers, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and antibalance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.		
11.1.2. *High Speed Flight — N/A*	—	—
11.2 **Airframe Structures — General Concepts**		
(a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding.	2	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	1	2

	LEVEL	
	A2	B1.2
11.3 **Airframe Structures — Aeroplanes**	1	2
11.3.1 *Fuselage (ATA 52/53/56)*		
Construction and pressurisation sealing;		
Wing, tail-plane, pylon and undercarriage attachments;		
Seat installation;		
Doors and emergency exits: construction and operation;		
Windows and windscreen attachment.		
11.3.2 *Wings (ATA 57)*	1	2
Construction;		
Fuel storage;		
Landing gear, pylon, control surface and high lift/drag attachments.		
11.3.3 *Stabilisers (ATA 55)*	1	2
Construction;		
Control surface attachment.		
11.3.4 *Flight Control Surfaces (ATA 55/57)*	1	2
Construction and attachment;		
Balancing — mass and aerodynamic.		
11.3.5 *Nacelles/Pylons (ATA 54)*	1	2
Nacelles/Pylons: — Construction, — Firewalls, — Engine mounts.		
11.4 **Air Conditioning and Cabin Pressurisation (ATA 21)**	1	3
Pressurisation and air conditioning systems;		
Cabin pressure controllers, protection and warning devices;		
Heating systems.		

	LEVEL	
	A2	B1.2
11.5 **Instruments/Avionic Systems**		
11.5.1 *Instrument Systems (ATA 31)*	1	2
Pitot static: altimeter, air speed indicator, vertical speed indicator;		
Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;		
Compasses: direct reading, remote reading;		
Angle of attack indication, stall warning systems;		
Glass cockpit;		
Other aircraft system indication.		
11.5.2 *Avionic Systems*	1	1
Fundamentals of system lay-outs and operation of: — Auto Flight (ATA 22), — Communications (ATA 23), — Navigation Systems (ATA 34).		
11.6 **Electrical Power (ATA 24)**	1	3
Batteries Installation and Operation;		
DC power generation;		
Voltage regulation;		
Power distribution;		
Circuit protection;		
Inverters, transformers.		
11.7 **Equipment and Furnishings (ATA 25)**		
(a) Emergency equipment requirements; Seats, harnesses and belts;	2	2
(b) Cabin lay-out; Equipment lay-out; Cabin Furnishing installation; Cabin entertainment equipment; Galley installation; Cargo handling and retention equipment; Airstairs.	1	1
11.8 **Fire Protection (ATA 26)**		
(a) Fire and smoke detection and warning systems; Fire extinguishing systems; System tests;	1	3
(b) Portable fire extinguisher.	1	3

	LEVEL	
	A2	B1.2
11.9 **Flight Controls (ATA 27)** Primary controls: aileron, elevator, rudder; Trim tabs; High lift devices; System operation: manual; Gust locks; Balancing and rigging; Stall warning system.	1	3
11.10 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	1	3
11.11 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical; Filters; Pressure Control; Power distribution; Indication and warning systems.	1	3
11.12 **Ice and Rain Protection (ATA 30)** Ice formation, classification and detection; De-icing systems: electrical, hot air, pneumatic and chemical; Probe and drain heating; Wiper systems.	1	3

	LEVEL	
	A2	B1.2
11.13 **Landing Gear (ATA 32)** Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, brakes, antiskid and autobraking; Tyres; Steering; Air-ground sensing.	2	3
11.14 **Lights (ATA 33)** External: navigation, anti collision, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	2	3
11.15 **Oxygen (ATA 35)** System lay-out: cockpit, cabin; Sources, storage, charging and distribution; Supply regulation; Indications and warnings.	1	3
11.16 **Pneumatic/Vacuum (ATA 36)** System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	1	3
11.17 **Water/Waste (ATA 38)** Water system lay-out, supply, distribution, servicing and draining; Toilet system lay-out, flushing and servicing; Corrosion aspects.	2	3

MODULE 11C. PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Note: The scope of this module shall reflect the technology of aeroplanes pertinent to the B3 category.

	LEVEL
	B3
11.1 **Theory of Flight**	
Aeroplane Aerodynamics and Flight Controls	1
Operation and effect of: — roll control: ailerons, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices, slots, slats, flaps, flaperons; Drag inducing devices, lift dumpers, speed brakes; Effects of wing fences, saw tooth leading edges; Boundary layer control using, vortex generators, stall wedges or leading edge devices; Operation and effect of trim tabs, balance and anti-balance (leading) tabs, servo tabs, spring tabs, mass balance, control surface bias, aerodynamic balance panels.	
11.2 **Airframe Structures — General Concepts**	
(a) Airworthiness requirements for structural strength; Structural classification, primary, secondary and tertiary; Fail safe, safe life, damage tolerance concepts; Zonal and station identification systems; Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue; Drains and ventilation provisions; System installation provisions; Lightning strike protection provision; Aircraft bonding;	2
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning, anti-corrosive protection, wing, empennage and engine attachments; Structure assembly techniques: riveting, bolting, bonding; Methods of surface protection, such as chromating, anodising, painting; Surface cleaning; Airframe symmetry: methods of alignment and symmetry checks.	2
11.3 **Airframe Structures — Aeroplanes**	
11.3.1 *Fuselage (ATA 52/53/56)* Construction;	1

	LEVEL
	B3
Wing, tail-plane, pylon and undercarriage attachments; Seat installation; Doors and emergency exits: construction and operation; Window and windscreen attachment.	
11.3.2 *Wings (ATA 57)* Construction; Fuel storage; Landing gear, pylon, control surface and high lift/drag attachments.	1
11.3.3 *Stabilisers (ATA 55)* Construction; Control surface attachment.	1
11.3.4 *Flight Control Surfaces (ATA 55/57)* Construction and attachment; Balancing — mass and aerodynamic.	1
11.3.5 *Nacelles/Pylons (ATA 54)* Nacelles/Pylons: — Construction, — Firewalls, — Engine mounts.	1
11.4 **Air Conditioning (ATA 21)**	
Heating and ventilation systems.	1
11.5 **Instruments/Avionic Systems**	
11.5.1 *Instrument Systems (ATA 31)* Pitot static: altimeter, air speed indicator, vertical speed indicator; Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator; Compasses: direct reading, remote reading; Angle of attack indication, stall warning systems; Glass cockpit; Other aircraft system indication.	
11.5.2 *Avionic Systems* Fundamentals of system lay-outs and operation of: — Auto Flight (ATA 22), — Communications (ATA 23), — Navigation Systems (ATA 34).	1

	LEVEL
	B3
11.6 **Electrical Power (ATA 24)** Batteries Installation and Operation; DC power generation; Voltage regulation; Power distribution; Circuit protection; Inverters, transformers.	2
11.7 **Equipment and Furnishings (ATA 25)** Emergency equipment requirements; Seats, harnesses and belts.	2
11.8 **Fire Protection (ATA 26)** Portable fire extinguisher.	2
11.9 **Flight Controls (ATA 27)** Primary controls: aileron, elevator, rudder; Trim tabs; High lift devices; System operation: manual; Gust locks; Balancing and rigging; Stall warning system.	3
11.10 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	2
11.11 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical; Filters; Pressure Control; Power distribution; Indication and warning systems.	2
11.12 **Ice and Rain Protection (ATA 30)** Ice formation, classification and detection; De-icing systems: electrical, hot air, pneumatic and chemical; Probe and drain heating; Wiper systems.	1

	LEVEL
	B3
11.13 **Landing Gear (ATA 32)**	2
Construction, shock absorbing;	
Extension and retraction systems: normal and emergency;	
Indications and warning;	
Wheels, brakes, antiskid and autobraking;	
Tyres;	
Steering.	
11.14 **Lights (ATA 33)**	2
External: navigation, anti collision, landing, taxiing, ice;	
Internal: cabin, cockpit, cargo;	
Emergency.	
11.15 **Oxygen (ATA 35)**	2
System lay-out: cockpit, cabin;	
Sources, storage, charging and distribution;	
Supply regulation;	
Indications and warnings.	
11.16 **Pneumatic/Vacuum (ATA 36)**	2
System lay-out;	
Sources: engine/APU, compressors, reservoirs, ground supply;	
Pressure and vacuum pumps	
Pressure control;	
Distribution;	
Indications and warnings;	
Interfaces with other systems.	

MODULE 12. HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS

	LEVEL	
	A3 A4	B1.3 B1.4
12.1 **Theory of Flight — Rotary Wing Aerodynamics** Terminology; Effects of gyroscopic precession;Torque reaction and directional control; Dissymmetry of lift, Blade tip stall; Translating tendency and its correction; Coriolis effect and compensation; Vortex ring state, power settling, overpitching; Auto-rotation; Ground effect.	1	2
12.2 **Flight Control Systems** Cyclic control; Collective control; Swashplate; Yaw control: Anti-Torque Control, Tail rotor, bleed air; Main Rotor Head: Design and Operation features; Blade Dampers: Function and construction; Rotor Blades: Main and tail rotor blade construction and attachment; Trim control, fixed and adjustable stabilisers; System operation: manual, hydraulic, electrical and fly-by-wire; Artificial feel; Balancing and rigging.	2	3
12.3 **Blade Tracking and Vibration Analysis** Rotor alignment; Main and tail rotor tracking; Static and dynamic balancing; Vibration types, vibration reduction methods; Ground resonance.	1	3
12.4 **Transmission** Gear boxes, main and tail rotors; Clutches, free wheel units and rotor brake;	1	3

	LEVEL	
	A3 A4	B1.3 B1.4
12.5 **Airframe Structures**		
(a) Airworthiness requirements for structural strength;	2	2
Structural classification, primary, secondary and tertiary;		
Fail safe, safe life, damage tolerance concepts;		
Zonal and station identification systems;		
Stress, strain, bending, compression, shear, torsion, tension, hoop stress, fatigue;		
Drains and ventilation provisions;		
System installation provisions;		
Lightning strike protection provision;		
(b) Construction methods of: stressed skin fuselage, formers, stringers, longerons, bulkheads, frames, doublers, struts, ties, beams, floor structures, reinforcement, methods of skinning and anti-corrosive protection.	1	2
Pylon, stabiliser and undercarriage attachments;		
Seat installation;		
Doors: construction, mechanisms, operation and safety devices;		
Windows and windscreen construction;		
Fuel storage;		
Firewalls;		
Engine mounts;		
Structure assembly techniques: riveting, bolting, bonding;		
Methods of surface protection, such as chromating, anodising, painting;		
Surface cleaning.		
Airframe symmetry: methods of alignment and symmetry checks.		
12.6 **Air Conditioning (ATA 21)**		
12.6.1 *Air supply*	1	2
Sources of air supply including engine bleed and ground cart.		
12.6.2 *Air conditioning*	1	3
Air conditioning systems;		
Distribution systems;		
Flow and temperature control systems;		
Protection and warning devices.		
12.7 **Instruments/Avionic Systems**		
12.7.1 *Instrument Systems (ATA 31)*	1	2
Pitot static: altimeter, air speed indicator, vertical speed indicator;		
Gyroscopic: artificial horizon, attitude director, direction indicator, horizontal situation indicator, turn and slip indicator, turn coordinator;		

	LEVEL	
	A3 A4	B1.3 B1.4
Compasses: direct reading, remote reading; Vibration indicating systems — HUMS; Glass cockpit; Other aircraft system indication.		
12.7.2 *Avionic Systems*	1	1
Fundamentals of system layouts and operation of: Auto Flight (ATA 22); Communications (ATA 23); Navigation Systems (ATA 34).		
12.8 **Electrical Power (ATA 24)** Batteries Installation and Operation; DC power generation, AC power generation; Emergency power generation; Voltage regulation, Circuit protection. Power distribution; Inverters, transformers, rectifiers; External/Ground power.	1	3
12.9 **Equipment and Furnishings (ATA 25)** (a) Emergency equipment requirements; Seats, harnesses and belts; Lifting systems;	2	2
(b) Emergency flotation systems; Cabin lay-out, cargo retention; Equipment lay-out; Cabin Furnishing Installation.	1	1
12.10 **Fire Protection (ATA 26)** Fire and smoke detection and warning systems; Fire extinguishing systems; System tests.	1	3
12.11 **Fuel Systems (ATA 28)** System lay-out; Fuel tanks; Supply systems; Dumping, venting and draining; Cross-feed and transfer; Indications and warnings; Refuelling and defuelling.	1	3

	LEVEL	
	A3 A4	B1.3 B1.4
12.12 **Hydraulic Power (ATA 29)** System lay-out; Hydraulic fluids; Hydraulic reservoirs and accumulators; Pressure generation: electric, mechanical, pneumatic; Emergency pressure generation; Filters; Pressure Control; Power distribution; Indication and warning systems; Interface with other systems.	1	3
12.13 **Ice and Rain Protection (ATA 30)** Ice formation, classification and detection; Anti-icing and De-icing systems: electrical, hot air and chemical; Rain repellent and removal; Probe and drain heating; Wiper system.	1	3
12.14 **Landing Gear (ATA 32)** Construction, shock absorbing; Extension and retraction systems: normal and emergency; Indications and warning; Wheels, Tyres, brakes; Steering; Air-ground sensing; Skids, floats.	2	3
12.15 **Lights (ATA 33)** External: navigation, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	2	3

	LEVEL	
	A3 A4	B1.3 B1.4
12.16 **Pneumatic/Vacuum (ATA 36)** System lay-out; Sources: engine/APU, compressors, reservoirs, ground supply; Pressure control; Distribution; Indications and warnings; Interfaces with other systems.	1	3
12.17 **Integrated Modular Avionics (ATA42)** Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others: Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc. Core System; Network Components.	1	2
12.18 **On Board Maintenance Systems (ATA45)** Central maintenance computers; Data loading system; Electronic library system; Printing; Structure monitoring (damage tolerance monitoring).	1	2
12.19 **Information Systems (ATA46)** The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display. Typical examples include Air Traffic and Information Management Systems and Network Server Systems. Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.	1	2

MODULE 13. AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS

	LEVEL
	B2
13.1 **Theory of Flight**	
(a) *Aeroplane Aerodynamics and Flight Controls*	1
Operation and effect of: — roll control: ailerons and spoilers, — pitch control: elevators, stabilators, variable incidence stabilisers and canards, — yaw control, rudder limiters; Control using elevons, ruddervators; High lift devices: slots, slats, flaps; Drag inducing devices: spoilers, lift dumpers, speed brakes; Operation and effect of trim tabs, servo tabs, control surface bias;	
(b) *High Speed Flight*	1
Speed of sound, subsonic flight, transonic flight, supersonic flight; Mach number, critical Mach number;	
(c) *Rotary Wing Aerodynamics*	1
Terminology; Operation and effect of cyclic, collective and anti-torque controls.	
13.2 **Structures — General Concepts**	
(a) Fundamentals of structural systems;	1
(b) Zonal and station identification systems; Electrical bonding; Lightning strike protection provision.	2
13.3 **Autoflight (ATA 22)** Fundamentals of automatic flight control including working principles and current terminology; Command signal processing; Modes of operation: roll, pitch and yaw channels; Yaw dampers; Stability Augmentation System in helicopters; Automatic trim control; Autopilot navigation aids interface; Autothrottle systems; Automatic Landing Systems: principles and categories, modes of operation, approach, glideslope, land, go-around, system monitors and failure conditions.	3

	LEVEL
	B2
13.4 **Communication/Navigation (ATA 23/34)**	3
Fundamentals of radio wave propagation, antennas, transmission lines, communication, receiver and transmitter;	
Working principles of following systems: — Very High Frequency (VHF) communication, — High Frequency (HF) communication, — Audio, — Emergency Locator Transmitters, — Cockpit Voice Recorder, — Very High Frequency omnidirectional range (VOR), — Automatic Direction Finding (ADF), — Instrument Landing System (ILS), — Microwave Landing System (MLS), — Flight Director systems, Distance Measuring Equipment (DME), — Very Low Frequency and hyperbolic navigation (VLF/Omega), — Doppler navigation, — Area navigation, RNAV systems, — Flight Management Systems, — Global Positioning System (GPS), Global Navigation Satellite Systems (GNSS), — Inertial Navigation System, — Air Traffic Control transponder, secondary surveillance radar, — Traffic Alert and Collision Avoidance System (TCAS), — Weather avoidance radar, — Radio altimeter, — ARINC communication and reporting.	
13.5 **Electrical Power (ATA 24)**	3
Batteries Installation and Operation; DC power generation; AC power generation; Emergency power generation; Voltage regulation; Power distribution; Inverters, transformers, rectifiers; Circuit protection; External/Ground power.	
13.6 **Equipment and Furnishings (ATA 25)**	3
Electronic emergency equipment requirements; Cabin entertainment equipment.	

	LEVEL
	B2
13.7 **Flight Controls (ATA 27)** (a) Primary controls: aileron, elevator, rudder, spoiler; Trim control; Active load control; High lift devices; Lift dump, speed brakes; System operation: manual, hydraulic, pneumatic; Artificial feel, Yaw damper, Mach trim, rudder limiter, gust locks. Stall protection systems;	2
(b) System operation: electrical, fly-by-wire.	3
13.8 **Instruments (ATA 31)** Classification; Atmosphere; Terminology; Pressure measuring devices and systems; Pitot static systems; Altimeters; Vertical speed indicators; Airspeed indicators; Machmeters; Altitude reporting/alerting systems; Air data computers; Instrument pneumatic systems; Direct reading pressure and temperature gauges; Temperature indicating systems; Fuel quantity indicating systems; Gyroscopic principles; Artificial horizons; Slip indicators; Directional gyros; Ground Proximity Warning Systems; Compass systems; Flight Data Recording systems; Electronic Flight Instrument Systems; Instrument warning systems including master warning systems and centralised warning panels; Stall warning systems and angle of attack indicating systems; Vibration measurement and indication; Glass cockpit.	3
13.9 **Lights (ATA 33)** External: navigation, landing, taxiing, ice; Internal: cabin, cockpit, cargo; Emergency.	3

	LEVEL
	B2
13.10 **On Board Maintenance Systems (ATA 45)**	3
Central maintenance computers;	
Data loading system;	
Electronic library system;	
Printing;	
Structure monitoring damage tolerance monitoring).	
13.11 **Air Conditioning and Cabin Pressurisation (ATA21)**	
13.11.1. *Air supply* Sources of air supply including engine bleed, APU and ground cart;	2
13.11.2. *Air Conditioning* Air conditioning systems;	2
Air cycle and vapour cycle machines;	3
Distribution systems;	1
Flow, temperature and humidity control system.	3
13.11.3. *Pressurisation* Pressurisation systems;	3
Control and indication including control and safety valves;	
Cabin pressure controllers.	
13.11.4. *Safety and warning devices* Protection and warning devices.	3
13.12 **Fire Protection (ATA 26)**	
(a) Fire and smoke detection and warning systems;	3
Fire extinguishing systems;	
System tests;	
(b) Portable fire extinguisher.	1
13.13 **Fuel Systems (ATA 28)**	
System lay-out;	1
Fuel tanks;	1
Supply systems;	1
Dumping, venting and draining;	1
Cross-feed and transfer;	2
Indications and warnings;	3
Refuelling and defuelling;	2
Longitudinal balance fuel systems.	3
System lay-out;	1
Hydraulic fluids;	1
Hydraulic reservoirs and accumulators;	1
Pressure generation: electrical, mechanical, pneumatic;	3
Emergency pressure generation;	3

	LEVEL
	B2
Filters;	1
Pressure control;	3
Power distribution;	1
Indication and warning systems;	3
Interface with other systems.	3
13.15 **Ice and Rain Protection (ATA 30)**	
Ice formation, classification and detection;	2
Anti-icing systems: electrical, hot air and chemical;	2
De-icing systems: electrical, hot air, pneumatic, chemical;	3
Rain repellent;	1
Probe and drain heating;	3
Wiper Systems.	1
13.16 **Landing Gear (ATA 32)**	
Construction, shock absorbing;	1
Extension and retraction systems: normal and emergency;	3
Indications and warnings;	3
Wheels, brakes, antiskid and autobraking;	3
Tyres;	1
Steering;	3
Air-ground sensing.	3
13.17 **Oxygen (ATA 35)**	
System lay-out: cockpit, cabin;	3
Sources, storage, charging and distribution;	3
Supply regulation;	3
Indications and warnings.	3
13.18 **Pneumatic/Vacuum (ATA 36)**	
System lay-out;	2
Sources: engine/APU, compressors, reservoirs, ground supply;	2
Pressure control;	3
Distribution;	1

	LEVEL
	B2
Indications and warnings;	3
Interfaces with other systems.	3
13.19 **Water/Waste (ATA 38)**	2
Water system lay-out, supply, distribution, servicing and draining;	
Toilet system lay-out, flushing and servicing.	
13.20 **Integrated Modular Avionics (ATA42)**	3
Functions that may be typically integrated in the Integrated Modular Avionic (IMA) modules are, among others:	
Bleed Management, Air Pressure Control, Air Ventilation and Control, Avionics and Cockpit Ventilation Control, Temperature Control, Air Traffic Communication, Avionics Communication Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical System BITE, Fuel Management, Braking Control, Steering Control, Landing Gear Extension and Retraction, Tyre Pressure Indication, Oleo Pressure Indication, Brake Temperature Monitoring, etc.;	
Core System;	
Network Components.	
13.21 **Cabin Systems (ATA44)**	3
The units and components which furnish a means of entertaining the passengers and providing communication within the aircraft (Cabin Intercommunication Data System) and between the aircraft cabin and ground stations (Cabin Network Service). Includes voice, data, music and video transmissions.	
The Cabin Intercommunication Data System provides an interface between cockpit/cabin crew and cabin systems. These systems support data exchange of the different related LRU's and they are typically operated via Flight Attendant Panels.	
The Cabin Network Service typically consists on a server, typically interfacing with, among others, the following systems:	
— Data/Radio Communication, In-Flight Entertainment System.	
The Cabin Network Service may host functions such as:	
— Access to pre-departure/departure reports,	
— E-mail/intranet/Internet access,	
— Passenger database;	
Cabin Core System;	
In-flight Entertainment	
System;	
External Communication System;	
Cabin Mass Memory System; Cabin Monitoring System; Miscellaneous	
Cabin System.	

	LEVEL
	B2
13.22 **Information Systems (ATA46)** The units and components which furnish a means of storing, updating and retrieving digital information traditionally provided on paper, microfilm or microfiche. Includes units that are dedicated to the information storage and retrieval function such as the electronic library mass storage and controller. Does not include units or components installed for other uses and shared with other systems, such as flight deck printer or general use display. Typical examples include Air Traffic and Information Management Systems and Network Server Systems. Aircraft General Information System; Flight Deck Information System; Maintenance Information System; Passenger Cabin Information System; Miscellaneous Information System.	3

MODULE 14. PROPULSION

	LEVEL
	B2
14.1 **Turbine Engines** (a) Constructional arrangement and operation of turbojet, turbofan, turboshaft and turbopropeller engines;	1
(b) Electronic Engine control and fuel metering systems (FADEC).	2
14.2 **Engine Indicating Systems** Exhaust gas temperature/Interstage turbine temperature systems; Engine speed; Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems; Oil pressure and temperature; Fuel pressure, temperature and flow; Manifold pressure; Engine torque; Propeller speed.	2
14.3 **Starting and Ignition Systems** Operation of engine start systems and components; Ignition systems and components; Maintenance safety requirements.	2

MODULE 15. GAS TURBINE ENGINE

	LEVEL	
	A	B1
15.1 **Fundamentals**	1	2
Potential energy, kinetic energy, Newton's laws of motion, Brayton cycle;		
The relationship between force, work, power, energy, velocity, acceleration;		
Constructional arrangement and operation of turbojet, turbofan, turboshaft, turboprop.		
15.2 **Engine Performance**	—	2
Gross thrust, net thrust, choked nozzle thrust, thrust distribution, resultant thrust, thrust horsepower, equivalent shaft horsepower, specific fuel consumption;		
Engine efficiencies;		
By-pass ratio and engine pressure ratio;		
Pressure, temperature and velocity of the gas flow;		
Engine ratings, static thrust, influence of speed, altitude and hot climate, flat rating, limitations.		
15.3 **Inlet**	2	2
Compressor inlet ducts		
Effects of various inlet configurations;		
Ice protection.		
15.4 **Compressors**	1	2
Axial and centrifugal types;		
Constructional features and operating principles and applications;		
Fan balancing;		
Operation:		
Causes and effects of compressor stall and surge;		
Methods of air flow control: bleed valves, variable inlet guide vanes, variable stator vanes, rotating stator blades;		
Compressor ratio.		
15.5 **Combustion Section**		
Constructional features and principles of operation.	1	2
15.6 **Turbine Section**		
Operation and characteristics of different turbine blade types;	2	2
Blade to disk attachment;		
Nozzle guide vanes;		
Causes and effects of turbine blade stress and creep.		

	LEVEL	
	A	B1
15.7 **Exhaust** Constructional features and principles of operation; Convergent, divergent and variable area nozzles; Engine noise reduction; Thrust reversers.	1	2
15.8 **Bearings and Seals** Constructional features and principles of operation.	—	2
15.9 **Lubricants and Fuels** Properties and specifications; Fuel additives; Safety precautions.	1	2
15.10 **Lubrication Systems** System operation/lay-out and components.	1	2
15.11 **Fuel Systems** Operation of engine control and fuel metering systems including electronic engine control (FADEC); Systems lay-out and components.	1	2
15.12 **Air Systems** Operation of engine air distribution and anti-ice control systems, including internal cooling, sealing and external air services.	1	2
15.13 **Starting and Ignition Systems** Operation of engine start systems and components; Ignition systems and components; Maintenance safety requirements.	1	2

	LEVEL	
	A	B1
15.14 **Engine Indication Systems** Exhaust Gas Temperature/Interstage Turbine Temperature; Engine Thrust Indication: Engine Pressure Ratio, engine turbine discharge pressure or jet pipe pressure systems; Oil pressure and temperature; Fuel pressure and flow; Engine speed; Vibration measurement and indication; Torque; Power.	1	2
15.15 **Power Augmentation Systems** Operation and applications; Water injection, water methanol; Afterburner systems.	—	1
15.16 **Turbo-prop Engines** Gas coupled/free turbine and gear coupled turbines; Reduction gears; Integrated engine and propeller controls; Overspeed safety devices.	1	2
15.17 **Turbo-shaft Engines** Arrangements, drive systems, reduction gearing, couplings, control systems.	1	2
15.18 **Auxiliary Power Units (APUs)** Purpose, operation, protective systems.	1	2
15.19 **Powerplant Installation** Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2
15.20 **Fire Protection Systems** Operation of detection and extinguishing systems.	1	2

	LEVEL	
	A	B1
15.21 **Engine Monitoring and Ground Operation** Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Trend (including oil analysis, vibration and boroscope) monitoring; Inspection of engine and components to criteria, tolerances and data specified by engine manufacturer; Compressor washing/cleaning; Foreign Object Damage.	1	3
15.22 **Engine Storage and Preservation** Preservation and depreservation for the engine and accessories/systems.	—	2

MODULE 16. PISTON ENGINE

	LEVEL		
	A	B1	B3
16.1 **Fundamentals** Mechanical, thermal and volumetric efficiencies; Operating principles — 2 stroke, 4 stroke, Otto and Diesel; Piston displacement and compression ratio; Engine configuration and firing order.	1	2	2
16.2 **Engine Performance** Power calculation and measurement; Factors affecting engine power; Mixtures/leaning, pre-ignition.	1	2	2
16.3 **Engine Construction** Crank case, crank shaft, cam shafts, sumps; Accessory gearbox; Cylinder and piston assemblies; Connecting rods, inlet and exhaust manifolds; Valve mechanisms; Propeller reduction gearboxes.	1	2	2

	LEVEL		
	A	B1	B3
16.4 **Engine Fuel Systems**			
16.4.1 *Carburettors*	1	2	2
Types, construction and principles of operation;			
Icing and heating.			
16.4.2 *Fuel injection systems*	1	2	2
Types, construction and principles of operation.			
16.4.3 *Electronic engine control*	1	2	2
Operation of engine control and fuel metering systems including electronic engine control (FADEC);			
Systems lay-out and components.			
16.5 **Starting and Ignition Systems**	1	2	2
Starting systems, pre-heat systems;			
Magneto types, construction and principles of operation;			
Ignition harnesses, spark plugs;			
Low and high tension systems.			
16.6 **Induction, Exhaust and Cooling Systems**	1	2	2
Construction and operation of: induction systems including alternate air systems;			
Exhaust systems, engine cooling systems — air and liquid.			
16.7 **Supercharging/Turbocharging**	1	2	2
Principles and purpose of supercharging and its effects on engine parameters;			
Construction and operation of supercharging/turbo-charging systems;			
System terminology;			
Control systems;			
System protection.			
16.8 **Lubricants and Fuels**	1	2	2
Properties and specifications;			
Fuel additives;			
Safety precautions.			

	LEVEL		
	A	B1	B3
16.9 **Lubrication Systems** System operation/lay-out and components.	1	2	2
16.10 **Engine Indication Systems** Engine speed; Cylinder head temperature; Coolant temperature; Oil pressure and temperature; Exhaust Gas Temperature; Fuel pressure and flow; Manifold pressure.	1	2	2
16.11 **Powerplant Installation** Configuration of firewalls, cowlings, acoustic panels, engine mounts, anti-vibration mounts, hoses, pipes, feeders, connectors, wiring looms, control cables and rods, lifting points and drains.	1	2	2
16.12 **Engine Monitoring and Ground Operation** Procedures for starting and ground run-up; Interpretation of engine power output and parameters; Inspection of engine and components: criteria, tolerances, and data specified by engine manufacturer.	1	3	2
16.13 **Engine Storage and Preservation** Preservation and depreservation for the engine and accessories/systems.	—	2	1

MODULE 17A. PROPELLER

Note: This module does not apply to category B3. Relevant subject matters for category B3 are defined in module 17B.

	LEVEL	
	A	B1
17.1 **Fundamentals** Blade element theory; High/low blade angle, reverse angle, angle of attack, rotational speed; Propeller slip; Aerodynamic, centrifugal, and thrust forces; Torque; Relative airflow on blade angle of attack; Vibration and resonance.	1	2
17.2 **Propeller Construction** Construction methods and materials used in wooden, composite and metal propellers; Blade station, blade face, blade shank, blade back and hub assembly; Fixed pitch, controllable pitch, constant speeding propeller; Propeller/spinner installation.	1	2
17.3 **Propeller Pitch Control** Speed control and pitch change methods, mechanical and electrical/electronic; Feathering and reverse pitch; Overspeed protection.	1	2
17.4 **Propeller Synchronising** Synchronising and synchrophasing equipment.	—	2
17.5 **Propeller Ice Protection** Fluid and electrical de-icing equipment.	1	2
17.6 **Propeller Maintenance** Static and dynamic balancing; Blade tracking; Assessment of blade damage, erosion, corrosion, impact damage, delamination; Propeller treatment/repair schemes; Propeller engine running.	1	3
17.7 **Propeller Storage and Preservation** Propeller preservation and depreservation.	1	2

MODULE 17B. PROPELLER

Note: The scope of this Module shall reflect the propeller technology of aeroplanes pertinent to the B3 category.

	LEVEL
	B3
17.1 **Fundamentals**	2
Blade element theory;	
High/low blade angle, reverse angle, angle of attack, rotational speed;	
Propeller slip;	
Aerodynamic, centrifugal, and thrust forces;	
Torque;	
Relative airflow on blade angle of attack;	
Vibration and resonance.	
17.2 **Propeller Construction**	2
Construction methods and material used in wooden, composite and metal propellers;	
Blade station, blade face, blade shank, blade back and hub assembly;	
Fixed pitch, controllable pitch, constant speeding propeller;	
Propeller/spinner installation.	
17.3 **Propeller Pitch Control**	2
Speed control and pitch change methods, mechanical and electrical/electronic;	
Feathering and reverse pitch;	
Overspeed protection.	
17.4 **Propeller Synchronising**	2
Synchronising and synchrophasing equipment.	
17.5 **Propeller Ice Protection**	2
Fluid and electrical de-icing equipment.	
17.6 **Propeller Maintenance**	2
Static and dynamic balancing;	
Blade tracking;	
Assessment of blade damage, erosion, corrosion, impact damage, delamination;	
Propeller treatment/repair schemes;	
Propeller engine running.	
17.7 **Propeller Storage and Preservation**	2
Propeller preservation and depreservation.	

IS 2.6.1.8 EXPERIENCE REQUIREMENTS FOR EXTENDING PART 2 AIRCRAFT MAINTENANCE LICENCE

The table below shows the experience requirements for adding a new category or subcategory to an existing Part 2 licence.

The experience shall be practical maintenance experience on operating aircraft in the subcategory relevant to the application.

The experience requirement will be reduced by 50% if the applicant has completed an approved Part 3 course relevant to the subcategory.

To / From	A1	A2	A3	A4	B1.1	B1.2	B1.3	B1.4	B2	B3
A1	—	6 months	6 months	6 months	2 years	6 months	2 years	1 year	2 years	6 months
A2	6 months	—	6 months	6 months	2 years	6 months	2 years	1 year	2 years	6 months
A3	6 months	6 months	—	6 months	2 years	1 year	2 years	6 months	2 years	1 year
A4	6 months	6 months	6 months	—	2 years	1 year	2 years	6 months	2 years	1 year
B1.1	None	6 months	6 months	6 months	—	6 months	6 months	6 months	1 year	6 months
B1.2	6 months	None	6 months	6 months	2 years	—	2 years	6 months	2 years	None
B1.3	6 months	6 months	None	6 months	6 months	6 months	—	6 months	1 year	6 months
B1.4	6 months	6 months	6 months	None	2 years	6 months	2 years	—	2 years	6 months
B2	6 months	6 months	6 months	6 months	1 year	1 year	1 year	1 year	—	1 year
B3	6 months	None	6 months	6 months	2 years	6 months	2 years	1 year	2 years	—

IS 2.6.1.11 AIRCRAFT TYPE TRAINING AND EXAMINATION STANDARD

On the Job Training

1. **General**

Aircraft type training shall consist of theoretical training and examination, and, except for the category C ratings, practical training.

(a) Theoretical training and examination shall comply with the following requirements:

(i) Shall be conducted by a maintenance training organisation appropriately approved in accordance with (Part 3) or, when conducted by other organisations, as directly approved by the Authority.

(ii) Shall comply with the standard described in paragraph 3.1 and 4 of this IS 2.6.1.11, except as permitted by the differences training described below.

(iii) In the case of a category C person qualified by holding an academic degree as specified in point 2.6.1.8 (a)(5), the first relevant aircraft type theoretical training shall be at the category B1 or B2 level.

(iv) Shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

(b) Practical training shall comply with the following requirements:

(i) Shall be conducted by a maintenance training organisation appropriately approved in accordance with (Part-3) or, when conducted by other organisations, as directly approved by the Authority.

(ii) Shall comply with the standard described in paragraph 3.2 and 4 of this IS 2.6.1.11, except as permitted by the differences training described below.

(iii) Shall include a representative cross section of maintenance activities relevant to the aircraft type.

(iv) Shall include demonstrations using equipment, components, simulators, other training devices or aircraft.

(v) Shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

(c) Differences training

(i) Differences training is the training required in order to cover the differences between two different aircraft type ratings of the same manufacturer as determined by the Authority.

(ii) Differences training has to be defined on a case-to-case basis taking into account the requirements contained in this IS 2.6.1.11 in respect of both theoretical and practical elements of type rating training.

(iii) A type rating shall only be endorsed on a licence after differences training when the applicant also complies with one of the following conditions:

— having already endorsed on the licence the aircraft type rating from which the differences are being identified, or

— having completed the type training requirements for the aircraft from which the differences are being identified.

2. **Aircraft type training levels**

The three levels listed below define the objectives, the depth of training and the level of knowledge that the training is intended to achieve.

Level 1*: A brief overview of the airframe, systems and powerplant as outlined in the Systems Description Section of the Aircraft Maintenance Manual/Instructions for Continued Airworthiness.*

Course objectives: Upon completion of Level 1 training, the student will be able to:

(a) provide a simple description of the whole subject, using common words and examples, using typical terms and identify safety precautions related to the airframe, its systems and powerplant;

(b) identify aircraft manuals, maintenance practices important to the airframe, its systems and powerplant;

(c) define the general layout of the aircraft's major systems;

(d) define the general layout and characteristics of the powerplant;

(e) identify special tooling and test equipment used with the aircraft.

Level 2*: Basic system overview of controls, indicators, principal components, including their location and purpose, servicing and minor troubleshooting. General knowledge of the theoretical and*

practical aspects of the subject.

Course objectives: In addition to the information contained in the Level 1 training, at the completion of Level 2 training, the student will be able to:

(a) understand the theoretical fundamentals; apply knowledge in a practical manner using detailed procedures;

(b) recall the safety precautions to be observed when working on or near the aircraft, powerplant and systems;

(c) describe systems and aircraft handling particularly access, power availability and sources;

(d) identify the locations of the principal components;

(e) explain the normal functioning of each major system, including terminology and nomenclature;

(f) perform the procedures for servicing associated with the aircraft for the following systems: Fuel, Power Plants, Hydraulics, Landing Gear, Water/Waste, and Oxygen;

(g) demonstrate proficiency in use of crew reports and on-board reporting systems (minor troubleshooting) and determine aircraft airworthiness per the MEL/CDL;

(h) demonstrate the use, interpretation and application of appropriate documentation including instructions for continued airworthiness, maintenance manual, illustrated parts catalogue, etc.

***Level 3**: Detailed description, operation, component location, removal/ installation and bite and troubleshooting procedures to maintenance manual level.*

Course objectives: In addition to the information contained in Level 1 and Level 2 training, at the completion of Level 3 training, the student will be able to:

(a) demonstrate a theoretical knowledge of aircraft systems and structures and interrelationships with other systems, provide a detailed description of the subject using theoretical fundamentals and specific examples and to interpret results from various sources and measurements and apply corrective action where appropriate;

(b) perform system, powerplant, component and functional checks as specified in the aircraft maintenance manual;

(c) demonstrate the use, interpret and apply appropriate documentation including structural repair manual, troubleshooting manual, etc.;

(d) correlate information for the purpose of making decisions in respect of fault diagnosis and rectification to maintenance manual level;

(e) describe procedures for replacement of components unique to aircraft type.

3. **Aircraft type training standard**

Although aircraft type training includes both theoretical and practical elements, courses can be approved for the theoretical element, the practical element or for a combination of both.

3.1. *Theoretical element*

(a) Objective:

On completion of a theoretical training course the student shall be able to demonstrate, to the levels identified in the IS 2.6.1.11 syllabus, the detailed

theoretical knowledge of the aircraft's applicable systems, structure, operations, maintenance, repair, and troubleshooting according to approved maintenance data. The student shall be able to demonstrate the use of manuals and approved procedures, including the knowledge of relevant inspections and limitations.

(b) Level of training:
Training levels are those levels defined in point 2 above.

After the first type course for category C certifying staff all subsequent courses need only be to level 1.

During a level 3 theoretical training, level 1 and 2 training material may be used to teach the full scope of the chapter if required. However, during the training the majority of the course material and training time shall be at the higher level.

(c) Duration:
The theoretical training minimum tuition hours are contained in the following table:

Aeroplanes with a maximum take-off mass above 30 000 kg:	
Category	Hours
B1.1	150
B1.2	120
B2	100
C	30

Aeroplanes with a maximum take-off mass equal or less than 30 000 kg and above 5 700 kg:	
Category	Hours
B1.1	120
B1.2	100
B2	100
C	25
Aeroplanes with a maximum take-off mass of 5 700 kg and below (1)	
B1.1	80
B1.2	60
B2	60
C	15
Helicopters (2)	
B1.3	120
B1.4	100
B2	100
C	25

(1) For non-pressurised piston engine aeroplanes below 2 000 kg MTOM the minimum duration can be reduced by 50%.
(2) For helicopters in group 2 (as defined in point 2.6.1.11) the minimum duration can be reduced by 30%.

For the purpose of the table above, a tuition hour means 60 minutes of teaching and exclude any breaks, examination, revision, preparation and aircraft visit.

These hours apply only to theoretical courses for complete aircraft/ engine combinations according to the type rating as defined by the Authority.

(d) Justification of course duration:
Training courses carried out in a maintenance training organisation approved in accordance with (Part- 3) and courses directly approved by the Authority shall justify their hour duration and the coverage of the full syllabus by a training needs analysis based on:

— the design of the aircraft type, its maintenance needs and the types of operation,
— detailed analysis of applicable chapters — see contents table in point 3.1(e) below,
— detailed competency analysis showing that the objectives as stated in point 3.1(a) above are fully met.

Where the training needs analysis shows that more hours are needed, course lengths shall be longer than the minimum specified in the table.

Similarly, tuition hours of differences courses or other training course combinations (such as combined B1/B2 courses), and in cases of theoretical type training courses below the figures given in point 3.1(c) above, these shall be justified to the Authority by the training needs analysis as described above.

In addition, the course must describe and justify the following:

— The minimum attendance required to the trainee, in order to meet the objectives of the course.
— The maximum number of hours of training per day, taking into account pedagogical and human factors principles.

If the minimum attendance required is not met, the certificate of recognition shall not be issued. Additional training may be provided by the training organisation in order to meet the minimum attendance time.

(e) Content:
As a minimum, the elements in the Syllabus below that are specific to the aircraft type shall be covered. Additional elements introduced due to type variations, technological changes, etc. shall also be included.

The training syllabus shall be focused on mechanical and electrical aspects for B1 personnel, and electrical and avionic aspects for B2.

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2

Introduction module:									
05 Time limits/maintenance checks	1	1	1	1	1	1	1	1	1
06 Dimensions/Areas (MTOM, etc.)	1	1	1	1	1	1	1	1	1
07 Lifting and Shoring	1	1	1	1	1	1	1	1	1
08 Levelling and weighing	1	1	1	1	1	1	1	1	1

Chapters / Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
09 Towing and taxiing	1	1	1	1	1	1	1	1	1
10 Parking/mooring, Storing and Return to Service	1	1	1	1	1	1	1	1	1
11 Placards and Markings	1	1	1	1	1	1	1	1	1
12 Servicing	1	1	1	1	1	1	1	1	1
20 Standard practices — only type particular	1	1	1	1	1	1	1	1	1
Helicopters									
18 Vibration and Noise Analysis (Blade tracking)	—	—	—	—	3	1	3	1	—
60 Standard Practices Rotor	—	—	—	—	3	1	3	1	—
62 Rotors	—	—	—	—	3	1	3	1	1
62A Rotors — Monitoring and indicating	—	—	—	—	3	1	3	1	3
63 Rotor Drives	—	—	—	—	3	1	3	1	1
63A Rotor Drives — Monitoring and indicating	—	—	—	—	3	1	3	1	3
64 Tail Rotor	—	—	—	—	3	1	3	1	1
64A Tail rotor — Monitoring and indicating	—	—	—	—	3	1	3	1	3
65 Tail Rotor Drive	—	—	—	—	3	1	3	1	1
65A Tail Rotor Drive — Monitoring and indicating	—	—	—	—	3	1	3	1	3
66 Folding Blades/Pylon	—	—	—	—	3	1	3	1	—
67 Rotors Flight Control	—	—	—	—	3	1	3	1	—
53 Airframe Structure (Helicopter)	—	—	—	—	3	1	3	1	—
25 Emergency Flotation Equipment	—	—	—	—	3	1	3	1	1

Airframe structures										
51	Standard practices and structures (damage classification, assessment and repair)	3	1	3	1	—	—	—	—	1
53	Fuselage	3	1	3	1	—	—	—	—	1
54	Nacelles/Pylons	3	1	3	1	—	—	—	—	1
55	Stabilisers	3	1	3	1	—	—	—	—	1

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
56 Windows	3	1	3	1	—	—	—	—	1
57 Wings	3	1	3	1	—	—	—	—	1
27A Flight Control Surfaces (All)	3	1	3	1	—	—	—	—	1
52 Doors	3	1	3	1	—	—	—	—	1
Zonal and Station Identification Systems.	1	1	1	1	1	1	1	1	1
Airframe systems:									
21 Air Conditioning	3	1	3	1	3	1	3	1	3
21A Air Supply	3	1	3	1	1	3	3	1	2
21B Pressurisation	3	1	3	1	3	1	3	1	3
21C Safety and Warning Devices	3	1	3	1	3	1	3	1	3
22 Autoflight	2	1	2	1	2	1	2	1	3
23 Communications	2	1	2	1	2	1	2	1	3
24 Electrical Power	3	1	3	1	3	1	3	1	3
25 Equipment and Furnishings	3	1	3	1	3	1	3	1	1
25A Electronic Equipment including emergency equipment	1	1	1	1	1	1	1	1	3
26 Fire Protection	3	1	3	1	3	1	3	1	3
27 Flight Controls	3	1	3	1	3	1	3	1	2
27A Sys. Operation: Electrical/Fly-by-Wire	3	1	—	—	—	—	—	—	3
28 Fuel Systems	3	1	3	1	3	1	3	1	2
28A Fuel Systems — Monitoring and indicating	3	1	3	1	3	1	3	1	3
29 Hydraulic Power	3	1	3	1	3	1	3	1	2
29A Hydraulic Power — Monitoring and indicating	3	1	3	1	3	1	3	1	3
30 Ice and Rain Protection	3	1	3	1	3	1	3	1	3

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
31 Indicating/Recording Systems	3	1	3	1	3	1	3	1	3
31A Instrument Systems	3	1	3	1	3	1	1	3	3
32 Landing Gear	3	1	3	1	3	1	3	1	2
32A Landing Gear — Monitoring and indicating	3	1	3	1	3	1	3	1	3
33 Lights	3	1	3	1	3	1	3	1	3
34 Navigation	2	1	2	1	2	1	2	1	3
35 Oxygen	3	1	3	1	—	—	—	—	2
36 Pneumatic	3	1	3	1	3	1	3	1	2
36A Pneumatic — Monitoring and indicating	3	1	3	1	3	1	3	1	3
37 Vacuum	3	1	3	1	3	1	3	1	2
38 Water/Waste	3	1	3	1	—	—	—	—	2
41 Water Ballast	3	1	3	1	—	—	—	—	1
42 Integrated modular avionics	2	1	2	1	2	1	2	1	3
44 Cabin Systems	2	1	2	1	2	1	2	1	3
45 On-Board Maintenance System (or covered in 31)	3	1	3	1	3	1	—	—	3
46 Information Systems	2	1	2	1	2	1	2	1	3
50 Cargo and Accessory Compartments	3	1	3	1	3	1	3	1	1
Turbine Engine									
70 Standard Practices — Engines,	3	1	—	—	3	1	—	—	1
70A constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems).	3	1	—	—	3	1	—	—	1
70B Engine Performance	3	1	—	—	3	1	—	—	1
71 Powerplant	3	1	—	—	3	1	—	—	1
72 Engine Turbine/Turbo Prop/Ducted Fan/Unducted fan	3	1	—	—	3	1	—	—	1
73 Engine Fuel and Control	3	1	—	—	3	1	—	—	1

Chapters / Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
75 Air	3	1	—	—	3	1	—	—	1
76 Engine controls	3	1	—	—	3	1	—	—	1
78 Exhaust	3	1	—	—	3	1	—	—	1
79 Oil	3	1	—	—	3	1	—	—	1
80 Starting	3	1	—	—	3	1	—	—	1
82 Water Injections	3	1	—	—	3	1	—	—	1
83 Accessory Gear Boxes	3	1	—	—	3	1	—	—	1
84 Propulsion Augmentation	3	1	—	—	3	1	—	—	1
73A FADEC	3	1	—	—	3	1	—	—	3
74 Ignition	3	1	—	—	3	1	—	—	3
77 Engine Indicating Systems	3	1	—	—	3	1	—	—	3
49 Auxiliary Power Units (APUs)	3	1	—	—	—	—	—	—	2
Piston Engine									
70 Standard Practices — Engines	—	—	3	1	—	—	3	1	1
70A Constructional arrangement and operation (Installation, Carburettors, Fuel injection systems, Induction, Exhaust and Cooling Systems, Supercharging/Turbocharging, Lubrication Systems).	—	—	3	1	—	—	3	1	1
70B Engine Performance	—	—	3	1	—	—	3	1	1
71 Powerplant	—	—	3	1	—	—	3	1	1
73 Engine Fuel and Control	—	—	3	1	—	—	3	1	1
76 Engine Control	—	—	3	1	—	—	3	1	1
79 Oil	—	—	3	1	—	—	3	1	1
80 Starting	—	—	3	1	—	—	3	1	1
81 Turbines	—	—	3	1	—	—	3	1	1
82 Water Injections	—	—	3	1	—	—	3	1	1
83 Accessory Gear Boxes	—	—	3	1	—	—	3	1	1
84 Propulsion Augmentation	—	—	3	1	—	—	3	1	1

Chapters \ Level	Aeroplanes turbine		Aeroplanes piston		Helicopters turbine		Helicopters piston		Avionics
Licence category.	B1	C	B1	C	B1	C	B1	C	B2
73A FADEC	—	—	3	1	—	—	3	1	3
74 Ignition	—	—	3	1	—	—	3	1	3
77 Engine Indication Systems	—	—	3	1	—	—	3	1	3
Propellers									
60A Standard Practices — Propeller	3	1	3	1	—	—	—	—	1
61 Propellers/Propulsion	3	1	3	1	—	—	—	—	1
61A Propeller Construction	3	1	3	1	—	—	—	—	—
61B Propeller Pitch Control	3	1	3	1	—	—	—	—	—
61C Propeller Synchronising	3	1	3	1	—	—	—	—	1
61D Propeller Electronic control	2	1	2	1	—	—	—	—	3
61E Propeller Ice Protection	3	1	3	1	—	—	—	—	—
61F Propeller Maintenance	3	1	3	1	—	—	—	—	1

(f) Multimedia Based Training (MBT) methods may be used to satisfy the theoretical training element either in the classroom or in a virtual controlled environment subject to the acceptance of the Authority approving the training course.

3.2 Practical training element

(a) Objective:

The objective of skill test is to gain the required competence in performing safe maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks. It includes the awareness of the use of all technical literature and documentation for the aircraft, the use of specialist/special tooling and test equipment for performing removal and replacement of components and modules unique to type, including any on-wing maintenance activity.

(b) Content:

At least 50% of the crossed items in the table below, which are relevant to the particular aircraft type, shall be completed as part of the practical training.

Tasks crossed represent subjects that are important for practical training purposes to ensure that the operation, function, installation and safety significance of key maintenance tasks is adequately addressed; particularly where these cannot be fully explained by theoretical training alone. Although the list details the minimum practical training subjects, other items may be added where applicable to the particular aircraft type.

Tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Glossary of the table: LOC: Location; FOT: Functional/Operational Test; SGH: Service and Ground Handling; R/I: Removal/Installation; MEL: Minimum Equipment List; TS: TroubleShooting.

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
Introduction module:											
5 Time limits/main-tenance checks	X/X	—	—	—	—	—	—	—	—	—	—
6 Dimensions/Areas (MTOM, etc.)	X/X	—	—	—	—	—	—	—	—	—	—
7 Lifting and Shoring	X/X	—	—	—	—	—	—	—	—	—	—
8 Levelling and weighing	X/X	—	X	—	—	—	—	X	—	—	—
9 Towing and taxiing	X/X	—	X	—	—	—	—	X	—	—	—
10 Parking/mooring, Storing and Return to Service	X/X	—	X	—	—	—	—	X	—	—	—
11 Placards and Markings	X/X	—	—	—	—	—	—	—	—	—	—
12 Servicing	X/X	—	X	—	—	—	—	X	—	—	—
20 Standard practices — only type particular	X/X	—	X	—	—	—	—	X	—	—	—
Helicopters:											
18 Vibration and Noise Analysis (Blade tracking)	X/—	—	—	—	—	X	—	—	—	—	—
60 Standard Practices Rotor — only type specific	X/X	—	X	—	—	—	—	X	—	—	—
62 Rotors	X/—	—	X	X	—	X	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
62A Rotors — Monitoring and indicating	X/X	X	X	X	X	X	—	—	X	—	X
63 Rotor Drives	X/—	X	—	—	—	X	—	—	—	—	—
63A Rotor Drives — Monitoring and indicating	X/X	X	—	X	X	X	—	—	X	—	X
64 Tail Rotor	X/—	—	X	—	—	X	—	—	—	—	—
64A Tail rotor -Monitoring and indicating	X/X	X	—	X	X	X	—	—	X	—	X
65 Tail Rotor Drive	X/—	X	—	—	—	X	—	—	—	—	—
65A Tail Rotor Drive — Monitoring and indicating	X/X	X	—	X	X	X	—	—	X	—	X
66 Folding Blades/Pylon	X/—	X	X	—	—	X	—	—	—	—	—
67 Rotors Flight Control	X/—	X	X	—	X	X	—	—	—	—	—
53 Airframe Structure (Helicopter) Note: covered under Airframe structures											
25 Emergency Flotation Equipment	X/X	X	X	X	X	X	X	X	—	—	—
Airframe structures:											
51 Standard Practices and Structures (damage classification, assessment and repair)											
53 Fuselage	X/—	—	—	—	—	X	—	—	—	—	—
54 Nacelles/Pylons	X/—	—	—	—	—	—	—	—	—	—	—
55 Stabilisers	X/—	—	—	—	—	—	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
56 Windows	X/—	—	—	—	—	X	—	—	—	—	—
57 Wings	X/—	—	—	—	—	—	—	—	—	—	—
27A Flight Control Surfaces	X/—	—	—	—	—	X	—	—	—	—	—
52 Doors	X/X	X	X	—	—	—	—	X	—	—	—
Airframe systems:											
21 Air Conditioning	X/X	X	X	—	X	X	X	X	—	X	X
21A Air Supply	X/X	X	—	—	—	—	X	—	—	—	—
21B Pressurisation	X/X	X	—	—	X	X	X	—	—	X	X
21C Safety and warning Devices	X/X	—	X	—	—	—	—	X	—	—	—
22 Autoflight	X/X	—	—	—	X	—	X	X	X	X	X
23 Communications	X/X	—	X	—	X	—	X	X	X	X	X
24 Electrical Power	X/X	X	X	X	X	X	X	X	X	X	X
25 Equipment and Furnishings	X/X	X	X	X	—	—	X	X	X	—	—
25A Electronic Equipment including emergency equipment	X/X	X	X	X	—	—	X	X	X	—	—
26 Fire Protection	X/X	X	X	X	X	X	X	X	X	X	X
27 Flight Controls	X/X	X	X	X	X	X	X	—	—	—	—
27A Sys. Operation: Electrical/Fly-by-Wire	X/X	X	X	X	X	—	X	—	X	—	X
28 Fuel Systems	X/X	X	X	X	X	X	X	X	—	X	—
28A Fuel Systems — Monitoring and indicating	X/X	X	—	—	—	—	X	—	X	—	X
29 Hydraulic Power	X/X	X	X	X	X	X	X	X	—	X	—
29A Hydraulic Power — Monitoring and indicating	X/X	X	—	X	X	X	X	—	X	X	X
30 Ice and Rain Protection	X/X	X	X	—	X	X	X	X	—	X	X

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
31 Indicating/Recording Systems	X/X	X	X	X	X	X	X	X	X	X	X
31A Instrument Systems	X/X	X	X	X	X	X	X	X	X	X	X
32 Landing Gear	X/X	X	X	X	X	X	X	X	X	X	—
32A Landing Gear — Monitoring and indicating	X/X	X	—	X	X	X	X	—	X	X	X
33 Lights	X/X	X	X	—	X	—	X	X	X	X	—
34 Navigation	X/X	—	X	—	X	—	X	X	X	X	X
35 Oxygen	X/—	X	X	X	—	—	X	X	—	—	—
36 Pneumatic	X/—	X	—	X	X	X	X	—	X	X	X
36A Pneumatic — Monitoring and indicating	X/X	X	X	X	X	X	X	X	X	X	X
37 Vacuum	X/—	X	—	X	X	X	—	—	—	—	—
38 Water/Waste	X/—	X	X	—	—	—	X	X	—	—	—
41 Water Ballast	X/—	—	—	—	—	—	—	—	—	—	—
42 Integrated modular avionics	X/X	—	—	—	—	—	X	X	X	X	X
44 Cabin Systems	X/X	—	—	—	—	—	X	X	X	X	X
45 On-Board Maintenance System (or covered in 31)	X/X	X	X	X	X	X	X	X	X	X	X
46 Information Systems	X/X	—	—	—	—	—	X	—	X	X	X
50 Cargo and Accessory Compartments	X/X	—	X	—	—	—	—	—	—	—	—
Turbine/Piston Engine Module:											
70 Standard Practices — Engines — only type particular	—	—	X	—	—	—	—	X	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
70A Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	—	—	—	—	—	—	—	—	—	—
Turbine engines:											
70B Engine Performance	—	—	—	—	—	X	—	—	—	—	—
71 Power Plant	X/—	X	X	—	—	—	—	X	—	—	—
72 Engine Turbine/Turbo Prop/Ducted Fan/ Unducted fan	X/—	—	—	—	—	—	—	—	—	—	—
73 Engine Fuel and Control	X/X	X	—	—	—	—	—	—	—	—	—
73A FADEC Systems	X/X	X	—	X	X	X	X	—	X	X	X
74 Ignition	X/X	X	—	—	—	—	X	—	—	—	—
75 Air	X/—	—	—	X	—	X	—	—	—	—	—
76 Engine Controls	X/—	X	—	—	—	X	—	—	—	—	—
77 Engine Indicating	X/X	X	—	—	X	X	X	—	—	X	X
78 Exhaust	X/—	X	—	—	X	—	—	—	—	—	—
79 Oil	X/—	—	X	X	—	—	—	—	—	—	—
80 Starting	X/—	X	—	—	X	X	—	—	—	—	—
82 Water Injection	X/—	X	—	—	—	—	—	—	—	—	—
83 Accessory Gearboxes	X/—	—	X	—	—	—	—	—	—	—	—
84 Propulsion Augmen-tation	X/—	X	—	—	—	—	—	—	—	—	—
Auxiliary Power Units (APUs):											
49 Auxiliary Power Units (APUs)	X/—	X	X	—	—	X	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
Piston Engines:											
70 Standard Practices — Engines — only type particular	—	—	X	—	—	—	—	X	—	—	—
70A Constructional arrangement and operation (Installation Inlet, Compressors, Combustion Section, Turbine Section, Bearings and Seals, Lubrication Systems)	X/X	—	—	—	—	—	—	—	—	—	—
70B Engine Performance	—	—	—	—	—	X	—	—	—	—	—
71 Power Plant	X/—	X	X	—	—	—	—	X	—	—	—
73 Engine Fuel and Control	X/X	X	—	—	—	—	—	—	—	—	—
73A FADEC Systems	X/X	X	—	X	X	X	X	X	X	X	X
74 Ignition	X/X	X	—	—	—	—	X	—	—	—	—
76 Engine Controls	X/—	X	—	—	—	X	—	—	—	—	—
77 Engine Indicating	X/X	X	—	—	X	X	X	—	—	X	X
78 Exhaust	X/—	X	—	—	X	X	—	—	—	—	—
79 Oil	X/—	—	X	X	—	—	—	—	—	—	—
80 Starting	X/—	X	—	—	X	X	—	—	—	—	—
81 Turbines	X/—	X	X	X	—	X	—	—	—	—	—
82 Water Injection	X/—	X	—	—	—	—	—	—	—	—	—
83 Accessory Gearboxes	X/—	—	X	X	—	—	—	—	—	—	—
84 Propulsion Augmentation	X/—	X	—	—	—	—	—	—	—	—	—
Propellers:											
60A Standard Practices — Propeller	—	—	—	X	—	—	—	—	—	—	—
61 Propellers/Propulsion	X/X	X	X	—	X	X	—	—	—	—	—

Chapters	B1/B2	B1					B2				
	LOC	FOT	SGH	R=I	MEL	TS	FOT	SGH	R=I	MEL	TS
61A Propeller Construction	X/X	—	X	—	—	—	—	—	—	—	—
61B Propeller Pitch Control	X/—	X	—	X	X	X	—	—	—	—	—
61C Propeller Synchro-nising	X/—	X	—	—	—	X	—	—	—	X	—
61D Propeller Electronic control	X/X	X	X	X	X	X	X	X	X	X	X
61E Propeller Ice Protection	X/—	X	—	X	X	X	—	—	—	—	—
61F Propeller Maintenance	X/X	X	X	X	X	X	X	X	X	X	X

4. Type training examination and practical training

4.1. *Theoretical element examination standard*

After the theoretical portion of the aircraft type training has been completed, a written examination shall be performed, which shall comply with the following:

(a) Format of the examination is of the multi-choice type. Each multi-choice question shall have 4 alternative answers of which only one shall be the correct answer. The total time is based on the total number of questions and the time for answering is based upon a nominal average of 90 seconds per question.

(b) The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length.

(c) In numerical questions, the incorrect answers shall correspond to procedural errors such as the use of incorrect sense (+ versus -) or incorrect measurement units. They shall not be mere random numbers.

(d) The level of examination for each chapter ([1]) shall be the one defined in point 2 'Aircraft type training levels'. However, the use of a limited number of questions at a lower level is acceptable.

(e) The examination shall be of the closed book type. No reference material is permitted. An exception will be made for the case of examining a B1 or B2 candidate's ability to interpret technical documents.

(f) The number of questions shall be at least 1 question per hour of instruction. The number of questions for each chapter and level shall be proportionate to:
— the effective training hours spent teaching at that chapter and level,
— the learning objectives as given by the training needs analysis.

The Authority will assess the number and the level of the questions when approving the course.

(a) The minimum examination pass mark is 75 %. When the type training examination is split in several examinations, each examination shall be passed with at least a 75 % mark. In order to be possible to achieve exactly a 75 % pass mark, the number of questions in the examination shall be a multiple of 4.

(b) Penalty marking (negative points for failed questions) is not to be used.

(c) End of module phase examinations cannot be used as part of the final examination unless they contain the correct number and level of questions required.

4.2. *Practical training element practical skills standard*

After the practical element of the aircraft type training has been completed, a practical training must be performed, which must comply with the following:

(a) The practical training shall be performed by designated assessors appropriately qualified.

(b) The practical training shall evaluate the knowledge and skills of the trainee.

5. **Type examination standard**

Type examination shall be conducted by training organisations appropriately approved under Part 3 by the Authority.

The examination shall be oral, written or practical training based, or a combination thereof and it shall comply with the following requirements:

(a) Oral examination questions shall be open.

(b) Written examination questions shall be essay type or multi-choice questions.

(c) Practical training shall determine a person's competence to perform a task.

(d) Examinations shall be on a sample of chapters (2) drawn from paragraph 3 type training/examination syllabus, at the indicated level.

(e) The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All of the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length.

(f) In numerical questions, the incorrect answers shall correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they shall not be mere random numbers.

(g) The examination shall ensure that the following objectives are met:

1. Properly discuss with confidence the aircraft and its systems.

2. Ensure safe performance of maintenance, inspections and routine work according to the maintenance manual and other relevant instructions and tasks as appropriate for the type of aircraft, for example troubleshooting, repairs, adjustments, replacements, rigging and functional checks such as engine run, etc., if required.

3. Correctly use all technical literature and documentation for the aircraft.

4. Correctly use specialist/special tooling and test equipment, perform removal and replacement of components and modules unique to type, including any on-wing maintenance activity

(h) The following conditions apply to the examination:

1. The maximum number of consecutive attempts is three. Further sets of three attempts are allowed with a 1 year waiting period between sets. A waiting period of 30 days is required after the first failed attempt within one set, and a waiting period of 60 days is required after the second failed attempt.

   The applicant shall confirm in writing to the maintenance training organisation or the Authority to which they apply for an examination, the number and dates of attempts during the last year and the maintenance training organisation or the Authority where these attempts took place. The maintenance training organisation or the Authority is responsible for checking the number of attempts within the applicable timeframes.

2. The type examination shall be passed and the required practical experience shall be completed within the 3 years preceding the application for the rating endorsement on the aircraft maintenance licence.

3. Type examination shall be performed with at least one examiner present. The examiner(s) shall not have been involved in the applicant's training.

(i) A written and signed report shall be made by the examiner(s) to explain why the candidate has passed or failed.

6. **On the Job Training**

On the Job Training (OJT) shall be approved by the Authority who has issued the licence.

It shall be conducted at and under the control of maintenance organisation appropriately approved for the maintenance of the particular aircraft type and shall be assessed by designated assessors appropriately qualified.

It shall have been started and completed within the 3 years preceding the application for a type rating endorsement.

(a) Objective:
The objective of OJT is to gain the required competence and experience in performing safe maintenance.

(b) Content:
OJT shall cover a cross section of tasks acceptable to the Authority. The OJT tasks to be completed shall be representative of the aircraft and systems both in complexity and in the technical input required to complete that task. While relatively simple tasks may be included, other more complex maintenance tasks shall also be incorporated and undertaken as appropriate to the aircraft type.

Each task shall be signed off by the student and countersigned by a designated supervisor. The tasks listed shall refer to an actual job card/work sheet, etc.

The final practical training of the completed OJT is mandatory and shall be performed by a designated assessor appropriately qualified.

The following data shall be addressed on the OJT worksheets/logbook:

1. Name of Trainee;
2. Date of Birth;
3. Approved Maintenance Organisation;
4. Location;
5. Name of supervisor(s) and assessor, (including licence number if applicable);
6. Date of task completion;
7. Description of task and job card/work order/tech log, etc.;
8. Aircraft type and aircraft registration;
9. Aircraft rating applied for.

In order to facilitate the verification by the Authority, demonstration of the OJT shall consist of (i) detailed worksheets/logbook and (ii) a compliance report demonstrating how the OJT meets the requirement of this Part.

IS 2.6.2 SECTION B – PROCEDURES FOR AUTHORITY

IS 2.6.2.6 CCAA PEL 20 FORM - AIRCRAFT MAINTENANCE TECHNICIAN LICENCE, RATING, CONVERSION OR VALIDATION CERTIFICATE APPLICATION REFERRED TO IN PART 2

CCAA PEL 020
AVIATION MAINTENANCE TECHNICIAN LICENCE, RATING, CONVERSION OR VALIDATION CERTIFICATE APPLICATION

I. APPLICATION FOR:

A.	☐ Original Issuance	☐ Renewal	☐ Re-issue	☐ Added Rating	☐ Validation	☐ Conversion	☐ Amendment

B. Ratings	A	B1	B2	B3	C
Airplane Turbine	☐	☐			
Airplane Piston	☐	☐			
Helicopter Turbine	☐	☐			
Helicopter Piston	☐	☐			
Avionics			☐		
Piston engine non-pressurized aeroplanes of MTOM of 2t and below				☐	
Large Aircraft					☐
Large Aircraft other than Large aircrafts					☐

Type endorsement/Rating endorsement / Limitation removal (if applicable):

II. APPLICANT INFORMATION:

1. Legal name (last, first, middle):	**2.** Identification Number:	**3.** Date of birth (dd/mm/yy):
4a. Permanent mailing address (number and street):	**4b.** City and state or province:	**4c.** Country and postal code:
	5. Place of Birth:	**6.** Telephone number:
		7. Email address:

8. Nationality:	**9.** Height (cm)	**10.** Weight (kg):	**11.** Gender: ☐ Male ☐ Female
12. Hair:	**13.** Eyes:		
14a. Do you now hold, or have you ever held a CCAA licence? If yes, complete blocks 14b through 14e. ☐ Yes Date:_____ ☐ No	**14b.** If yes, has your licence ever been suspended or revoked? ☐ Yes Date:_____ ☐ No	**14c.** Type of Licence:	**14d.** Licence Number:
		14e. Date issued (dd/mm/yyyy):	
15a. Do you speak and understand the language of Curaçao? ☐ Yes ☐ No		**15b.** Do you speak and understand the English language? ☐ Yes ☐ No	

III. LICENCE, RATING, CONVERSION OR VALIDATION CERTIFICATE APPLIED FOR ON BASIS OF:

☐ **A.** Knowledge Test	**1. Knowledge test for applied for:**		**2a.** Knowledge test successfully completed for: **2b.** Knowledge test date of completion (dd/mm/yyyy):
☐ **B**. Assess-ment	**1.** Assessment applied for*:*		**2a.** Practical training successfully completed for: _____ **2b.** Assessment date of completion (dd/mm/yyyy):
☐ **C.** Graduate from an Approved Training Organisation (ATO):	**1.** Name and location of ATO:		**2.** ATO Certificate Number:
	3. Course from which graduated:		**4.** Graduation Date (dd/mm/yyyy):
☐ **D.** Holder of a Foreign Licence:	**1**. Country:	**2.** Type of Licence:	**3.** Licence Number:
	4. Ratings:		
	1. Service:		

☐ **E.** Military Competence:	**4.** Ratings:
☐ **F.** Civilian Experience:	

IV. EXPERIENCE:

1. Dates(month and year)		2. Employer and Location	3. Type of Work Performed
From	To		

V. APPLICANT'S CERTIFICATION:

I certify that the statements made by me on this application are true.	**1**. Signature (print name and sign) :	**2**. Date (dd/mm/yyyy):

VI. ENDORSEMENT FOR THE KNOWLEDGE TEST

A. AUTHORIZED INSTRUCTOR

I have personally instructed the applicant in the subject areas required by the CCARs for the licence, rating or certificate and consider this person ready to take the knowledge test.

1. Date (dd/mm/yyyy)	**2.** Instructor's name and signature (print name and sign)	**3.** Instructor's licence number:	**4.** Instructor's licence expiration date (dd/mm/yyyy):

B. APPROVED TRAINING ORGANIZATION:

The applicant has successfully completed our _____approved course, and is recommended for _____ test.

1. Date (dd/mm/yyyy):	**2. ATO** name:	**3.** ATO certificate number	**4.** Name, title and signature of ATO official (print name, title and sign)

VII. ENDORSEMENT FOR THE ASSESSMENT

A. AUTHORIZED INSTRUCTOR

I have personally instructed the applicant in the subject areas required by the CCAR for the licence, rating or certificate and consider this person ready to take the Assessment.

1. Date (dd/mm/yyyy)	2. Instructor's name and signature (print and sign)	3. Instructor's Licence number.	4. Instructor's licence expiration date(dd/mm/yyyy)

B. APPROVED TRAINING ORGANIZATION

The applicant has successfully completed our _____approved course, and is endorsed for the

_____test.

1. Date (dd/mm/yyyy)	2. ATO name	3. ATO certificate number	**4.** Name, title and signature of ATO official. (print name, title and sign)

C. CCAA AUTHORISATION

1. ☐ I have personally reviewed this applicant's application, identification and other required documentation and find this applicant meets the requirements of CCARs Part 2 for the Licence, Rating or certificate sought and authorize the applicant to take the knowledge test.

   ☐ Initial Knowledge Test ☐ Re-test after failure. ☐ Renewal. ☐ Re-issue.

2. ☐ I have personally reviewed this applicant's application, identification and other required documentation and find this applicant **does not** meet the requirements of CCARs Part 2 for the Licence, Rating or certificate sought and is **not** authorized to take the Assessment.

3. Remarks (if any):

   _____

   _____

4. Name, title and signature of CCAA official who conducted the review.

   _____
   (printed name and title)

   _____
   (signature)
   Date: _____(dd/mm/yyyy)

VIII. Mechanic Assessment Result	**Remarks**
1. GENERAL ASSESSMENT	
1a. Oral Pass ☐ Expiration date Fail ☐	
Question number failed	
1b. Practical Pass ☐ Expiration date Fail ☐	
Task number failed	
2. AIRFRAME RATING ASSESSMENT	
Airframe Structures	
2a. Oral Pass ☐ Expiration date Fail ☐	
Question number failed	
2b. Practical Pass ☐ Expiration date Fail ☐	
Task number failed	
Airframe Systems and Components	
2c. Oral Pass ☐ Expiration date Fail ☐	
Question number failed	

2d. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											
3. POWERPLANT RATING ASSESSMENT											
Powerplant Theory and Maintenance											
3a. Oral Pass ☐ Expiration date Fail ☐											
Question number failed											
3b. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											
Powerplant Systems and Components											
3c. Oral Pass ☐ Expiration date Fail ☐											
Question number failed											
3d. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											
4. AVIONICS RATING ASSESSMENT											
4a. Oral Pass ☐ Expiration date Fail ☐											
Question number failed											
4b. Practical Pass ☐ Expiration date Fail ☐											
Task number failed											

IX. ASSESSMENT REPORT (EXAMINER OR CCAA INSPECTOR)

1. Examiner or Inspector statement.

a. ☐ I have personally reviewed this applicant's application, identification and other required documentation and find this applicant meets the requirements of CCARs Part 2 for the Licence, rating or certificate sought.

b. ☐ I have personally tested/checked this applicant in accordance with pertinent procedures and requirements with the results indicated below.

☐ Approved.
☐ Disapproved – Notice of Denial issued

c. ☐ I have personally checked that this applicant meets the language proficiency requirements for the:
☐ English Language.

2. Location of test (facility, city, state or province, country)

3. Licence, rating or certificate for which tested.

4. Attachments

☐ Report of knowledge test. ☐ Superseded certificate. ☐ Letter.

5. Date (dd/mm/yyyy)	**6.** Examiner's or inspector's name and signature (print and sign)	**7.** Examiner's designation number or inspector's licence number.	**8.** Examiner's designation expiration date (dd/mm/yyyy)

X. CCAA Report

A. CCAA Action

☐ Examiners/Inspector recommendation

☐ Accepted ☐ Rejected

☐ Issue of aviation mechanic technician licence

☐ Renewal of aviation mechanic technician licence

☐ Re-issue of aviation mechanic technician licence

☐ Issue of rating

☐ Renewal of rating

☐ Re-issue of rating

Indicate rating:

☐ Airframe

☐ Power plant

☐ Avionics

☐ Issue of validation certificate

☐ Other _____

B. Attachments

☐ Knowledge test report

☐ Assessment report

☐ Notice of Denial

☐ Letter of Discontinuance

☐ Graduation certificate (copy)

☐ Copy of applicant's identification

☐ Verification of authenticity of foreign licence

C. Applicant's Identification

Type of Government-issued identification_____

Identification number _____

Expiration date _____

XI. CCAA Issuance
A. Licence, Rating or Validation Certificate Issued □ Licence _____ Expiration date* _____ □ Rating _____ Expiration date* _____ □ Validation certificate _____ Expiration date* _____ * Date format (dd/mm/yyyy)
B. CCAA Authorisation Name, title and signature of CCAA official who completed the issuance _____ (printed name and title) _____ (signature) Date _____(dd/mm/yyyy)

IS 2.6.2.13 BASIC EXAMINATION STANDARD

1. General

1.1. All basic examinations shall be carried out using the multi-choice question format and essay questions as specified below. The incorrect alternatives shall seem equally plausible to anyone ignorant of the subject. All of the alternatives shall be clearly related to the question and of similar vocabulary, grammatical construction and length. In numerical questions, the incorrect answers shall correspond to procedural errors such as corrections applied in the wrong sense or incorrect unit conversions: they shall not be mere random numbers.

1.2. Each multi-choice question shall have 4 alternative answers of which only one shall be the correct answer and the candidate shall be allowed a time per module which is based upon a nominal average of 75 seconds per question.

1.3. Each essay question requires the preparation of a written answer and the candidate shall be allowed 20 minutes to answer each such question.

1.4. Suitable essay questions shall be drafted and evaluated using the knowledge syllabus in IS 2.6.1.7 Modules 7A, 7B, 9A, 9B and 10.

1.5. Each question will have a model answer drafted for it, which will also include any known alternative answers that may be relevant for other subdivisions.

1.6. The model answer will also be broken down into a list of the important points known as Key Points.

1.7. The pass mark for each module and sub-module multi-choice part of the examination is 75%.

1.8. The pass mark for each essay question is 75% in that the candidates answer shall contain 75 % of the required key points addressed by the question and no significant error related to any required key point.

1.9. If either the multi-choice part only or the essay part only is failed, then it is only necessary to retake the multi-choice or essay part, as appropriate.

1.10. Penalty marking systems shall not be used to determine whether a candidate has passed.

1.11. A failed module may not be retaken for at least 90 days following the date of the failed module examination, except in the case of a maintenance training organisation approved in accordance with (Part 3) which conducts a course of retraining tailored to the failed subjects in the particular module when the failed module may be retaken after 30 days.

1.12. The time periods required by point 2.6.1.7 apply to each individual module examination, with the exception of those module examinations which were passed as part of another category licence, where the licence has already been issued.

1.13. The maximum number of consecutive attempts for each module is three. Further sets of three attempts are allowed with a 1 year waiting period between sets.

The applicant shall confirm in writing to the approved maintenance training organisation or the Authority to which they apply for an examination, the number and dates of attempts during the last year and the organisation or the Authority where these attempts took place. The maintenance training organisation or the Authority is responsible for checking the number of attempts within the applicable timeframes.

2. Number of questions per module

2.1. MODULE 1 — MATHEMATICS

Category A: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B2: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

2.2. MODULE 2 — PHYSICS

Category A: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

Category B1: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

2.3. MODULE 3 — ELECTRICAL FUNDAMENTALS

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B2: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B3: 24 multi-choice and 0 essay questions. Time allowed 30 minutes.

2.4. MODULE 4 — ELECTRONIC FUNDAMENTALS

Category B1: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2: 40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B3: 8 multi-choice and 0 essay questions. Time allowed 10 minutes.

2.5. MODULE 5 — DIGITAL TECHNIQUES/ELECTRONIC INSTRUMENT SYSTEMS

Category A: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

Category B1.1 and B1.3: 40 multi-choice and 0 essay questions. Time allowed 50 minutes.

Category B1.2 and B1.4: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B3: 16 multi-choice and 0 essay questions. Time allowed 20 minutes.

2.6. MODULE 6 — MATERIALS AND HARDWARE

Category A: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B2: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B3: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

2.7. MODULE 7A — MAINTENANCE PRACTICES

Category A: 72 multi-choice and 2 essay questions. Time allowed 90 minutes plus 40 minutes.

Category B1: 80 multi-choice and 2 essay questions. Time allowed 100 minutes plus 40 minutes.

Category B2: 60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

MODULE 7B — MAINTENANCE PRACTICES

Category B3: 60 multi-choice and 2 essay questions. Time allowed 75 minutes plus 40 minutes.

2.8. MODULE 8 — BASIC AERODYNAMICS

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B2: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B3: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

2.9. MODULE 9A — HUMAN FACTORS

Category A: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B1: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

Category B2: 20 multi-choice and 1 essay question. Time allowed 25 minutes plus 20 minutes.

MODULE 9B — HUMAN FACTORS

Category B3: 16 multi-choice and 1 essay questions. Time allowed 20 minutes plus 20 minutes.

2.10. MODULE10 — AVIATION LEGISLATION

Category A: 32 multi-choice and 1 essay question. Time allowed 40 minutes plus 20 minutes.

Category B1: 40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B2: 40 multi-choice and 1 essay question. Time allowed 50 minutes plus 20 minutes.

Category B3: 32 multi-choice and 1 essay questions. Time allowed 40 minutes plus 20 minutes.

2.11. MODULE 11A — TURBINE AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category A: 108 multi-choice and 0 essay questions. Time allowed 135 minutes.

Category B1: 140 multi-choice and 0 essay questions. Time allowed 175 minutes.

MODULE 11B — PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category A: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B1: 100 multi-choice and 0 essay questions. Time allowed 125 minutes.

MODULE 11C — PISTON AEROPLANE AERODYNAMICS, STRUCTURES AND SYSTEMS

Category B3: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

2.12. MODULE 12 — HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS:

Category A: 100 multi-choice and 0 essay questions. Time allowed 125 minutes.

Category B1: 128 multi-choice and 0 essay questions. Time allowed 160 minutes.

2.13. MODULE 13 — AIRCRAFT AERODYNAMICS, STRUCTURES AND SYSTEMS

Category B2: 180 multi-choice and 0 essay questions. Time allowed 225 minutes. Questions and time allowed may be split into two examinations as appropriate.

2.14. MODULE 14 — PROPULSION

Category B2: 24 multi-choice and 0 essay questions. Time allowed 30 minutes.

2.15. MODULE 15 — GAS TURBINE ENGINE

Category A: 60 multi-choice and 0 essay questions. Time allowed 75 minutes.

Category B1: 92 multi-choice and 0 essay questions. Time allowed 115 minutes.

2.16. MODULE 16 — PISTON ENGINE

Category A: 52 multi-choice and 0 essay questions. Time allowed 65 minutes.

Category B1: 72 multi-choice and 0 essay questions. Time allowed 90 minutes.

Category B3: 68 multi-choice and 0 essay questions. Time allowed 85 minutes.

2.17. MODULE 17A — PROPELLER

Category A: 20 multi-choice and 0 essay questions. Time allowed 25 minutes.

Category B1: 32 multi-choice and 0 essay questions. Time allowed 40 minutes.

MODULE 17B — PROPELLER

Category B3: 28 multi-choice and 0 essay questions. Time allowed 35 minutes.

IS 2.8.3 FLIGHT OPERATIONS OFFICER LICENCE

IS 2.8.3.2 SKILL TEST FOR THE FLIGHT OPERATIONS OFFICER LICENCE

The skill test for the flight operations officer licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Flight planning/dispatch release, including the applicants' knowledge and performance of the following tasks:

- (i) Regulatory requirements;
- (ii) Meteorology;
- (iii) Weather observations, analysis, and forecasts;
- (iv) Weather related hazards;
- (v) Aircraft systems, performance, and limitations;
- (vi) Navigation and aircraft navigation systems;
- (vii) Practical dispatch applications;
- (viii) Manuals, handbooks and other written guidance.

(2) Preflight, takeoff, and departure, including the applicant's knowledge and performance of the following tasks:

- (i) Air traffic control procedures;
- (ii) Aerodrome, crew, and company procedures.

(3) In-flight procedures, including the applicant's knowledge and performance of the following tasks:

- (i) Routing, re-routing, and flight plan filing;

(ii) En route communication procedures and requirements.

(4) Arrival, approach, and landing procedures, including the applicant's knowledge and performance of the following task:

(i) Air traffic control and air navigation procedures.

(5) Post flight procedures, including the applicant's knowledge and performance of the following tasks:

(i) Communication procedures and requirements;

(ii) Trip records.

(6) Abnormal and emergency procedures, including the applicant's knowledge and performance of the following task:

(i) Abnormal and emergency procedures.

IS 2.10.1 PARACHUTE RIGGER LICENCES, INSTRUCTORS, AND DESIGNATED PARACHUTE RIGGER EXAMINERS

IS 2.10.1.4 SENIOR PARACHUTE RIGGER LICENCE SKILL TEST

The skill test for the senior parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Certification, including the applicants' knowledge and performance of the following tasks:

(i) Senior Parachute Rigger experience requirements.

(ii) Senior Parachute Rigger test requirements.

(2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks:

(i) Senior Parachute Rigger privileges.

(ii) Required facilities and equipment.

(iii) Performance standards.

(iv) Recordation.

(v) Manufacturer's packing instructions.

(vi) Repair classifications.

(vii) Alterations.

(viii) Equipment requirements for intentional parachute jumping.

(ix) TSO 23c requirements.

(3) Packing parachutes, including the applicants' knowledge and performance of the following tasks:

(i) Packing round parachute.

(ii) Packing ram-air parachute.

(iii) Packing piggy-back container parachute.

(4) Parachute operation and care, including the applicants' knowledge and performance of the following tasks:

(i) Parachute storage.

(ii) Parachute drying and airing.

(iii) Parachute assembly inspection.

(iv) Cleaning parachute canopies.

(v) Parachute harness adjustment.

(vi) Pin-type static line requirements.

(vii) Break cord static line requirements.

(viii) Cleaning parachute harness/container.

(5) Parachute construction details, including the applicants' knowledge and performance of the following tasks:

(i) Seam construction defects.

(ii) Webbing joint construction.

(iii) Parachute construction knots.

(iv) Fabric construction.

(v) French fell seam construction.

(vi) Technical standard order TSO-C23c.

(vii) Technical standard order TSO-C23d.

(viii) Fastener tapes.

(ix) Finger loop construction.

(x) Radial seam construction.

(6) Parachute repair, including the applicants' knowledge and performance of the following tasks:

(i) Single canopy repair.

(ii) Replacement of lower control line (ram-air canopy).

(iii) Application of non-destructive test method TS-108.

(iv) Line attachment loop replacement.

(v) Removal and installation of grommets.

(vi) Sewing machine operation.

(vii) Cascade line replacement.

(viii) Nicopress sleeve installation.

(ix) Replacement of V-tab (butterfly tab).

(x) Replacement of continuous suspension line.

(xi) Suspension line replacement in ram-air canopy.

(xii) Container patching.

(xiii) Ram-air canopy repair limitations.

(xiv) Ram-air canopy repair adjacent to a seam.

IS 2.10.1.5 MASTER PARACHUTE RIGGER LICENCE SKILL TEST

The skill test for the master parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Certification, including the applicants' knowledge and performance of the following tasks:

(i) Master Parachute Rigger experience requirements.

(ii) Master Parachute Rigger test requirements.

(2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks:

(i) Master Parachute Rigger privileges.

(ii) Required facilities and equipment.

(iii) Performance standards.

(iv) Recordation.

(v) Manufacturer's packing instructions.

(vi) Repair classifications.

(vii) Alterations.

(viii) Equipment requirements for intentional parachute jumping.

(ix) TSO 23c requirements.

(3) Packing parachutes, including the applicants' knowledge and performance of the following tasks:

(i) Packing round parachute.

(ii) Packing ram-air parachute.

(iii) Packing piggy-back container parachute.

(4) Parachute operation and care, including the applicants' knowledge and performance of the following tasks:

(i) Parachute storage.

(ii) Parachute drying and airing.

(iii) Parachute assembly inspection.

(iv) Cleaning parachute canopies.

(v) Parachute harness adjustment.

(vi) Pin-type static line requirements.

(vii) Break cord static line requirements.

(viii) Cleaning parachute harness/container.

(5) Parachute construction details, including the applicants' knowledge and performance of the following tasks:

(i) Seam construction defects.

(ii) Webbing joint construction.

(iii) Parachute construction knots.

(iv) Fabric construction.

(v) French fell seam construction.

(vi) Technical standard order TSO-C23c.

(vii) Technical standard order TSO-C23d.

(viii) Fastener tapes.

(ix) Finger loop construction.

(x) Radial seam construction.

(6) Parachute repair, including the applicants' knowledge and performance of the following tasks:

(i) Single canopy repair.

(ii) Replacement of lower control line (ram-air canopy).

(iii) Application of non-destructive test method TS-108.

(iv) Line attachment loop replacement.

(v) Removal and installation of grommets.

(vi) Sewing machine operation.

(vii) Cascade line replacement.

(viii) Nicopress sleeve installation.

(ix) Replacement of V-tab (butterfly tab).

(x) Replacement of continuous suspension line.

(xi) Suspension line replacement in ram-air canopy.

(xii) Container patching.

(xiii) Ram-air canopy repair limitations.

(xiv) Ram-air canopy repair adjacent to a seam.

(7) Parachute Alterations, including the applicants' knowledge and performance of the following tasks:

(i) Alteration data approval.

(ii) Install an automatic activation device.

(iii) Fabrication binding corners.

(iv) Altering riser connections.

(v) Bridle cord alteration.

(vi) Threading friction adapter.

(vii) D- or V-ring alteration.

(viii) Conversion of ripcord deployment to hand deployed pilot chute.

(ix) Fabricate a canopy deployment bag.

(x) Convert throw-out pilot chute from rear of leg position to the bottom of container position.

IS 2.10.1.6 TYPE RATINGS—PARACHUTE RIGGER LICENCE SKILL TEST

The skill test for ratings or added ratings to a parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation applicable to the rating sought, including the applicant's knowledge and performance of the following:

(1) Additional rating requirements.

(2) Packing seat-type parachute.

(3) Packing back-type parachute (excluding piggy-back).

(4) Packing chest-type parachute.

(5) Packing lap-type parachute.

IS 2.10.1.13 RESERVED

IS 2.10.3.3 RESERVED

IS 2.10.3.5 RESERVED

IS 2.11.1 MEDICAL PROVISIONS FOR LICENSING

IS 2.11.1.3 CIVIL AVIATION MEDICAL EXAMINERS

(a) Basic training in aviation medicine for CAMEs shall include at least the following:

(1) Basic training in aviation medicine

(2) Physics of atmosphere and space

(3) Basic aeronautical knowledge

(4) Aviation physiology

(5) Ophthalmology

(6) Otorhinolaryngology
(7) Cardiology and general medicine
(8) Neurology
(9) Psychiatry in aviation medicine
(10) Psychology
(11) Dentistry
(12) Accidents, escape and survival
(13) Legislation, rules, and regulations
(14) Air evacuation
(15) Medicine and flying

(b) Advanced training in aviation medicine for CAMEs shall include the following:
(1) Pilot working environment
(2) Aerospace physiology
(3) Ophthalmology
(4) Otorhinolaryngology
(5) Cardiology and general medicine
(6) Neurology/psychiatry
(7) Human factors in aviation
(8) Tropical medicine
(9) Hygiene
(10) Space medicine

IS 2.11.1.9 MEDICAL CERTIFICATE

The following details shall appear on the medical certificate:

(1) Name of State
(2) Medical certificate number
(3) Name of holder in full
(4) Date of birth of holder
(5) Address of holder
(6) Nationality of holder
(7) Signature of holder
(8) Medical certificate Class 1, 2, or 3
(9) Date of issue
(10) Validity
(11) Limitations
(12) Issuing Authority
(13) Signature of Issuing Authority
(16) Examiner/CAA staff signature
(17) Examiner/CAA staff name (printed)
(18) Examiner's authorisation number
(19) Date of examination and State of examination

CURAÇAO CIVIL AVIATION REGULATIONS

PART 3 – APPROVED TRAINING ORGANISATIONS

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PART 3 – APPROVED TRAINING ORGANISATIONS

3.1 GENERAL

3.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for issuing approvals to organisations for the training of aviation personnel and prescribes the general operating rules for an ATO.

3.1.1.2 DEFINITIONS

(a) Definitions are contained in CCAR Part 1 of this regulations.

3.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AMT –** aviation maintenance technician

(2) **ATO –** approved training organisation

(3) **CFI –** chief flight instructor

(4) **CGI –** chief ground instructor

(5) **CPL –** commercial pilot licence

(6) **CRM –** crew resource management

(7) **FE –** flight engineer

(8) **FI –** flight instructor

(9) **FSTD –** flight simulation training device

(10) **GI –** ground instructor

(11) **ICAO –** International Civil Aviation Organization

(12) **IFR –** instrument flight rules

(13) **IR –** instrument rating

(14) **IS –** Implementing Standards

(15) **PIC –** pilot-in-command

(16) **PDCA –** plan-do-check-act

(17) **RPA –** remotely piloted aircraft

(18) **RPAS –** remotely piloted aircraft systems

(19) **SMS –** safety management system

3.1.1.4 EXEMPTION AUTHORITY

(a) The Authority may, upon consideration of the circumstances of a particular training organisation, issue to that training organisation an exemption providing relief from specified sections of this part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.

(b) The Authority may terminate or amend an exemption at any time.

(c) A request for exemption shall be made in accordance with the requirements of Part 1 of these regulations.

(d) Each training organisation that receives an exemption shall have a means of notifying the appropriate management and personnel of the exemption.

3.2 CERTIFICATION OF A TRAINING ORGANISATION AND CONTINUED VALIDITY OF THE CERTIFICATE

3.2.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for the certification of a training organisation and the continued validity of the ATO certificate issued by the Authority.

3.2.1.2 GENERAL

(a) The Authority may approve an ATO to provide the following:

(1) Any training activity that leads towards the issuance of a licence, rating, authorisation, or approval under these regulations;

(2) Training services necessary for an operator to meet the requirements of Part 9 of these regulations;

(3) Training services necessary for a maintenance organisation to meet the requirements of Part 6 of these regulations;

(4) Special curricula training designed to meet:

(i) Qualification-based training requirements, including those deemed acceptable through the approval of an “alternative means of compliance” mechanism; or

(ii) Competency-based training and assessment requirements; or

(iii) Those training requirements deemed acceptable through the approval of an “alternative means of compliance” mechanism.

(b) No person may operate as an ATO without, or in violation of, an ATO certificate and the training specifications issued under this part.

3.2.1.3 ATO CERTIFICATE

(a) The ATO certificate issued to a training organisation by Curaçao will consist of two documents:

(1) A one-page certificate for public display signed by the Authority; and

(2) Training specifications signed by the accountable manager and the Authority.

(b) An ATO shall conduct only the training, checking, and testing, or part thereof, for which it is rated and that is within the limitations placed in its training specifications.

(c) The certificate issued to an ATO by Curaçao will contain the following items and will be issued on a form and in a manner as prescribed in IS 3.2.1.3:

(1) The certificate number specifically assigned to the ATO;

(2) The name and location (principal business address) of the ATO;

(3) The certification Statement of Authority

(4) Rating(s) relating to the course(s) to be taught;

(5) The period of validity;

(6) The date of issue; and

(7) The signature, printed name, and title of the appropriate Authority.

(d) The training specifications issued to an ATO by Curaçao will specify training programme requirements and authorise the conduct of training, checking, and testing with any limitations thereof, and will contain:

(1) The certificate number specifically assigned to the ATO;

(2) The type of training authorised, including approved courses;

(3) The authorisations for the ATO, including limitations and approvals;

(4) The name and address of any satellite training centers and the approved training offered at each location;

(5) The facilities and equipment required to conduct the authorised training;

(6) The personnel required to perform the applicable duties under this part;

(7) The signatures of the accountable manager and the Authority;

(8) The date of issue or revision; and

(9) Any other items the Authority may require or allow.

(e) The ATO shall display its ATO certificate in a place accessible to the public in the principal place of business of the training organisation.

(f) The certificate and training specifications issued to an ATO shall be available on the premises for inspection by the public and the Authority.

3.2.1.4 ADVERTISING

(a) No training organisation may advertise as an ATO certificated under this part until the Authority has issued an ATO certificate and associated training specifications to that organisation.

(b) No ATO may make, either orally or in writing, any statement about itself that is false or is designed to mislead any person.

(c) Whenever the advertising of a training organisation indicates that it is certificated under this part, the advertisement shall clearly state the ATO certificate number.

3.2.1.5 APPLICATION FOR AN ATO CERTIFICATE

(a) An application for an ATO certificate shall be made on a form and in a manner prescribed by the Authority.

(b) Each applicant shall submit an application for initial issue of an ATO certificate at least 120 calendar days before the beginning of any proposed training or 90 days before effecting an amendment to any approved training, unless a shorter filing period is approved by the Authority.

(c) An application shall include:

(1) A statement showing that the minimum qualification requirements for each management position are met or exceeded;

(2) A statement acknowledging that the organisation shall notify the Authority within 10 working days of any change made in the assignment of persons in the required management positions;

(3) The proposed training specifications requested by the organisation;

(4) The proposed location of each training facility and any satellite ATOs;

(5) The proposed courses to be taught at each location;

(6) The equipment at each location, including FSTDs and training aircraft; any aerodromes or sites to be used; and any remote pilot stations and training RPA;

(7) Two copies of the proposed ATO Procedures Manual;

(8) Two copies of each proposed training course curriculum, including syllabi, outlines, courseware, procedures, and documentation to support the curriculum for which approval is sought;

(9) Documentation of the quality system;

(10) A statement of the maximum number of students the organisation expects to teach at any one time;

(11) Documentation of the SMS required by Part 1 of these regulations;

(12) A Statement of Compliance with all applicable regulations for the proposed training, including pertinent subparts and each relevant section of the regulation, which shall be identified and accompanied by a brief description; and

(13) Any additional information the Authority requires the applicant to submit.

3.2.1.6 ISSUANCE OF AN ATO CERTIFICATE

(a) The issue of an ATO certificate by Curaçao shall be dependent upon the training organisation demonstrating compliance with the requirements of this part, the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority.

(b) The Authority may issue an ATO certificate if, after investigation, the Authority finds that the applicant:

(1) Meets the requirements of this part for the holder of an ATO certificate; and

(2) Is properly and adequately equipped to perform the training for which it seeks approval.

Note: If, under the Civil Aviation Safety Act, as amended, any fees are to be prescribed by the Authority for the ATO certification process, that requirement shall be set forth in this part.

3.2.1.7 DURATION AND RENEWAL OF AN ATO CERTIFICATE

(a) An ATO certificate, or any portion of an ATO certificate, issued to an ATO located either inside or outside Curaçao is effective from the date of issue until:

(1) The last day of the 12th month after the date on which the certificate was initially issued, subject to satisfactory compliance with the requirements of this part; or

(2) The last day of the 24th month after the date on which the certificate was renewed, subject to satisfactory compliance with the requirements of this part; or

(3) The ATO surrenders the certificate to the Authority; or

(4) The Authority suspends or revokes the certificate.

(b) The holder of an ATO certificate that has expired, has been surrendered, or has been suspended or revoked by the Authority shall return the certificate and training specifications to the Authority within 5 working days of expiration, surrender, or receipt from the Authority of notice of suspension or revocation.

(c) An ATO that applies for a renewal of its certificate in Curaçao shall submit its request for renewal no later than 90 days before the ATO's current certificate expires. If a request for renewal is not made within this period, the ATO shall follow the certification procedures for initial issuance as prescribed by the Authority.

3.2.1.8 CONTINUED VALIDITY OF AN ATO CERTIFICATE

(a) Unless the ATO certificate has previously been surrendered, superseded, suspended, or revoked, or has expired by virtue of exceeding any expiration date that may be specified in the certificate, the continued validity of the ATO certificate issued by Curaçao shall be dependent upon:

(1) The ATO remaining in compliance with the requirements of this part, the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority;
(2) The Authority being granted access to the ATO's facilities to determine continued compliance with the requirements of this part; and
(3) The payment of any charges prescribed by the Authority.

3.2.1.9 AUTHORITY TO INSPECT

(a) The Authority may, at any time, inspect an ATO on the ATO's premises to determine the organisation's continuing compliance with the requirements of this part.

(b) Inspections will be conducted at least annually.

(c) After an inspection is conducted, the ATO will be notified, in writing, of any deficiencies identified during the inspection.

(d) Inspections will also be performed on an applicant for, or the holder of, an ATO certificate held outside the authorising Contracting State. This inspection may be delegated to the Authority of the State where the ATO is located, provided an arrangement exists.

3.2.1.10 SUSPENSION OR REVOCATION OF AN ATO CERTIFICATE

(a) The Authority may suspend or revoke an ATO certificate if it is established that the ATO has not met, or no longer meets, the requirements of this part.

3.2.1.11 CHANGES TO THE ATO AND ATO CERTIFICATE AMENDMENTS

(a) To enable the Authority to determine continued compliance with the requirements of this part, the ATO shall provide written notification to the Authority for approval at least 90 days prior to a change to any of the following:

(1) The name of the organisation;

(2) The location of the organisation;

(3) The facilities, equipment, or personnel that may affect the ATO rating(s) issued;

(4) The rating(s) held by the organisation, whether granted by the Authority or held through an ATO certification issued by another Contracting State;

(5) Additional locations of the organisation;

(6) Items in the ATO Procedures Manual, including the syllabi and curricula;

(7) The accountable manager; or

(8) The list of management personnel as described in the ATO Procedures Manual.

(b) The Authority will amend the certificate if the ATO notifies the Authority of a change in:

(1) Location, facilities, or equipment;

(2) Additional locations of the organisation;

(3) Rating(s) issued, including deletions;

(4) Items in the ATO Procedures Manual, including the syllabi and curricula;

(5) The name of the organisation with same ownership; or

(6) Ownership.

(c) The Authority may amend the certificate if the ATO notifies the Authority of a change in:

(1) The accountable manager;

(2) The list of management personnel as described in the ATO Procedures Manual; or

(3) Other items in the ATO Procedures Manual, including the syllabi and curricula.

(d) When the Authority issues an amendment to an ATO's certificate because of new ownership of the ATO, the Authority will assign a new certificate number to the amended certificate.

(e) The Authority may:

(1) Prescribe, in writing, the conditions under which the ATO shall continue to operate during any period of implementation of the changes noted in paragraph 3.2.1.11(a) of this subsection; and

(2) Hold the ATO certificate in abeyance if the Authority determines that approval of amendments to the ATO certificate may be delayed; the Authority will notify the ATO, in writing, of the reasons for any such delay.

(f) If changes are made by the ATO to the items listed in paragraph 3.2.1.11(a) of this subsection without notification to the Authority or amendment of the ATO certificate by the Authority, the ATO certificate may be suspended or revoked by the Authority.

3.2.1.12 LOCATION OF THE ATO

(a) PRINCIPAL PLACE OF BUSINESS. An applicant for, or the holder of, an ATO certificate issued under this part shall establish and maintain a principal place of business office that is physically located at the address to be shown on its certificate.

(b) SATELLITE ATOs. An ATO may conduct training in accordance with a training programme approved by the Authority at a satellite ATO, provided that:

(1) The facilities, equipment, personnel, and course content of the satellite ATO meet the applicable requirements;

(2) The instructors at the satellite ATO are under the direct supervision of management personnel at the principal ATO; and

(3) The Authority has issued training specifications to the ATO that reflect the name and address of the satellite ATO and the approved courses offered at the satellite ATO.

(c) FOREIGN LOCATIONS OF ATOs. An ATO or a satellite ATO approved by the Authority may be located in a country outside Curaçao and shall be subject to all the applicable requirements of this part.

3.2.1.13 FACILITIES, EQUIPMENT, AND MATERIALS – GENERAL REQUIREMENTS

(a) The facilities and working environment of the ATO shall be appropriate for the task to be performed and shall be acceptable to the Authority.

(b) An ATO shall have available, or shall have access to, the necessary facilities, equipment, and materials to conduct the courses for which it is approved.

(c) Any training devices used by the ATO shall be qualified according to requirements established by the Authority, and their use shall be approved by the Authority to ensure that they are appropriate to the task.

(d) An ATO shall not make a substantial change in facilities, equipment, or materials that have been approved for a particular training programme unless that change is approved in advance by the Authority.

(e) The facility that is the ATO's principal place of business:

(1) Shall not be shared with, or used by, another ATO; and

(2) Shall be adequate to maintain the records required to operate the business of the ATO.

Note: ICAO Doc 9625, Manual of Criteria for the Qualification of Flight Simulation Training Devices, provides guidance on the approval of FSTDs.

3.2.1.14 PERSONNEL – GENERAL REQUIREMENTS

(a) The ATO shall nominate a person responsible for ensuring that it is in compliance with the requirements for an approved organisation.

(b) The ATO shall employ the necessary personnel to plan, perform, and supervise the training to be conducted.

(c) The competence of instructional personnel shall be in accordance with procedures an of a level acceptable to the Authority.

(d) The ATO shall ensure that all instructional personnel receive initial and recurrent training appropriate to their assigned duties and responsibilities.

(e) The training programme established by the ATO shall include training in knowledge and skills related to human performance.

(f) The training programme for ATO personnel shall be contained in the ATO Procedures Manual.

Note: Guidance on designing training programmes to develop knowledge and skills in human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

3.2.1.15 RECORD KEEPING – GENERAL REQUIREMENTS

(a) STUDENT RECORDS.

(1) The ATO shall retain detailed student records to show that all requirements of the training course have been met as approved by the Authority.

(2) These records shall be kept for a minimum period of 2 years after completion of the training.

(b) INSTRUCTIONAL AND EXAMINING PERSONNEL RECORDS.

(1) The ATO shall maintain a system for recording the qualifications and training of instructional and examining personnel, where appropriate.

(2) These records shall be kept for a minimum period of 2 years after the instructor or examiner ceases to perform a function for the ATO.

3.2.1.16 ATO APPROVED FOR TESTING

(a) The Authority may authorise an ATO to conduct the testing required for the issuance of a licence or rating.

(b) The ATO personnel authorised to conduct the testing shall be approved by the Authority.

3.2.1.17 QUALITY SYSTEM AND QUALITY ASSURANCE PROGRAMME

(a) The ATO shall establish a quality system and a quality assurance programme, acceptable to the Authority, that shall ensure that training and instructional practices comply with all relevant requirements.

(b) The ATO quality system and quality assurance programme shall be established in accordance with the instruction and information prescribed in IS 3.2.1.17.

3.2.1.18 ATO PROCEDURES MANUAL – GENERAL REQUIREMENTS

(a) The ATO shall provide an ATO Procedures Manual, approved by the Authority, for the use and guidance of personnel concerned. This manual may be issued in separate parts and shall contain at least the following information:

(1) A general description of the scope of training authorised under the training specifications issued to the ATO;

(2) The content of the training programmes offered, including the courseware and equipment to be used;

(3) A description of the organisation's quality system;

(4) A description of the organisation's facilities;

(5) The name, duties, and qualifications of the person designated as the accountable manager;

(6) A description of the duties and qualifications of the personnel responsible for planning, performing, and supervising the training;

(7) A description of the procedures used to establish and maintain the competence of instructional personnel;

(8) A description of the method used for the completion and retention of the training records;

(9) A description, when applicable, of additional training needed to comply with an operator's or maintenance organisation's procedures and requirements; and

(10) When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with 3.2.1.16 of this part, a description of the selection, role, and duties of authorised personnel, as well as the applicable requirements established by the Authority.

(b) The ATO shall ensure that the ATO Procedures Manual is amended as necessary to keep the information contained therein up-to-date.

(c) The ATO shall promptly furnish copies of all amendments to the ATO Procedures Manual to the Authority and all organisations and personnel to which the manual has been issued.

3.2.1.19 DUTY PERIOD LIMITATIONS

(a) A person who holds an FI licence shall not conduct more than 8 hours of flight training in any 24-consecutive-hour period.

(b) Excluding briefing and debriefing, an FSTD instructor shall not conduct more than 8 hours of instruction in any 24-consecutive-hour period.

(c) A student in a certificated AMT school may not be required to attend classes of instruction more than 8 hours in any day or more than 6 days or 40 hours in any 7-day period.

3.2.1.20 SAFETY MANAGEMENT SYSTEM

(a) An ATO shall implement an SMS acceptable to the Authority as outlined in 1.6 of these regulations.

3.2.1.21 OUTSOURCING TO THIRD-PARTY PROVIDERS

(a) The ATO may outsource courseware, facilities and equipment, and instructional personnel to a third party, provided that the ATO has been approved by the Authority:

(1) For the training that is to be conducted; and

(2) To contract with the third party to be used.

(b) The ATO shall be accountable for the quality of third-party providers, including the suitability of courseware, facilities and equipment, and instructional personnel used to meet the ATO approved programmes.

3.3 ADDITIONAL REQUIREMENTS FOR INSTRUCTION – FLIGHT CREW TRAINING

3.3.1 GENERAL

(a) In addition to the requirements of 3.2 of this part, this subpart prescribes requirements for an ATO teaching flight crew curricula.

3.3.2 CURRICULUM APPROVAL FOR FLIGHT CREW TRAINING

3.3.2.1 TRAINING COURSES

(a) The Authority may approve an applicant for, or the holder of, an ATO certificate to conduct the following flight crew courses of instruction, as provided in the training specifications and provided the applicant meets the requirements of this part and Part 2 of these regulations:

(1) Private pilot licence course;

(2) CPL course;

(3) IR course;

(4) CPL/IR multi-engine/CRM-integrated course;

(5) Multi-crew pilot licence course;

(6) Airline transport pilot licence course;

(7) FE licence course;

(8) Flight navigator licence course;

(9) Class rating course;

(10) Type rating course;

(11) CRM course;

(12) FI course;

(13) Instructor course for additional type or class ratings;

(14) Instructor course for flight simulation;

(15) Refresher courses;

(16) RPAS course;

(17) Instructor course for RPAS training;

(18) Instructor course for RPAS flight simulation; and

(19) Other courses, as the Authority may approve.

Note 1: See ICAO Doc 7192, Part B-5, Integrated Commercial Pilot Course, Volumes 1 and 2.

Note 2: To allow courses to be tailored to the specific training needs of students and to be updated promptly, course contents are not specified in detail in this part. For examples of course curricula, see the ICAO Doc 7192 Training Manual series; the 14 CFR part 141 appendices; and 14 CFR part 121, Appendix E.

3.3.2.2 TRAINING COURSE APPROVAL – QUALIFICATION-BASED AND ALTERNATIVE MEANS OF COMPLIANCE

(a) An applicant for, or the holder of, an ATO certificate shall apply to the Authority for approval for each training course to be offered or amended.

(1) The applicant or ATO shall submit two copies of the training course or amendment to the Authority as part of the application.

(2) The applicant or ATO shall submit the application to the Authority at least 30 days before any instruction under the training course is scheduled to begin.

(b) Except as provided in 3.3.2.3 of this part, each training course for which approval is requested shall meet the minimum ground and flight training time requirements specified in Part 2 of these regulations for the licence, rating, or authorisation sought.

(c) Each training course for which approval is requested shall contain:

(1) A description of each room used for ground training, including the room size and the maximum number of students that may be trained in the room at one time, unless the course is provided via an internet-based training medium;

(2) A description of each type of audiovisual aid, projector, tape recorder, mock-up, chart, aeronautical product, and other special training aid used for ground training;

(3) A description of each FSTD used for training;

(4) A list of the aerodromes at which training flights originate and a description of the facilities, including pilot briefing areas that are available for use by the ATO's students and personnel at each of those aerodromes;

(5) A description of the type of aircraft, including any special equipment used for each phase of training;

(6) The minimum qualifications and ratings for each instructor assigned to ground or flight training, or to RPAS training; and

(7) A training syllabus that includes the following information:

(i) The prerequisites for enrolling in the ground and flight portion of the course, which include the pilot licence and rating (if required by this part), pilot training, pilot experience, and pilot knowledge;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) A description of what the course is expected to accomplish with regard to student learning;

(iv) The expected accomplishments and the standards for each stage of training; and

(v) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

3.3.2.3 TRAINING COURSE APPROVAL – ALTERNATIVE MEANS OF COMPLIANCE AND COMPETENCY-BASED TRAINING AND ASSESSMENT

(a) An ATO may request and receive initial approval for a period of not more than 24 calendar months for any training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that:

(1) The ATO shows that the instruction will provide a level of competency at least equal to the minimum experience requirements for personnel not receiving such instruction; and

(2) The following conditions are met:

(i) The ATO holds an ATO certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(ii) In addition to the information required by paragraph 3.3.2.2(c) of this part, the training course specifies planned ground and flight training time requirements for the course;

(iii) The ATO shall not request that the training course be approved for examining authority, nor may that ATO hold examining authority for that course; and

(iv) The knowledge test and/or skill test for the course shall be given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO.

(b) An ATO may request and receive final approval for any training course under this part that does not meet the minimum hours for a licence prescribed by Part 2 of these regulations, provided that the following conditions are met:

(1) The ATO has held initial approval for that training course for at least 24 calendar months;

(2) The ATO has:

(i) Instructed at least 10 students in that training course within the preceding 24 calendar months and has recommended those students for a pilot, FI, or GI licence or rating; and

(ii) At least 80 per cent of those students passed the knowledge or skill test, as appropriate, on the first attempt, and that test was given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO;

(3) In addition to the information required by paragraph 3.3.2.2(c) of this part, the training course specifies planned ground and flight training time requirements for the course; and

(4) The ATO shall not request that the training course be approved for examining authority, nor may that ATO hold examining authority for that course.

3.3.3 PERSONNEL REQUIRED FOR FLIGHT CREW TRAINING

(a) An applicant for, or the holder of, an ATO certificate for instructing flight crew curricula shall have the following personnel:

(1) A Director of Training;

(2) A CFI, as applicable;

(3) A CGI, as applicable; and

(4) An adequate number of GIs and FIs relevant to the courses provided.

(b) Each instructor to be used for training shall have received the appropriate training and shall hold the appropriate licences and/or ratings as required by Part 2 of these regulations.

(c) The duties and qualifications of the personnel listed in paragraph 3.3.3(a) of this subsection are prescribed in IS 3.3.3.

3.3.4 FACILITIES AND EQUIPMENT REQUIRED FOR FLIGHT CREW TRAINING

3.3.4.1 TRAINING FACILITIES

(a) An applicant for, or the holder of, an ATO certificate instructing flight crew curricula shall have facilities, as determined by the Authority, appropriate for the maximum number of students expected to be taught at any time, as follows:

(1) Flight operations facilities:

(i) An operations room;

(ii) A flight planning room;

(iii) Adequate briefing rooms; and

(iv) Offices for the instructors.

(2) Knowledge instruction facilities, including:

(i) Classroom accommodations;

(ii) Suitable demonstration equipment;

(iii) A radiotelephony training and testing facility;

(iv) A library; and

(v) Offices for the instructors.

3.3.4.2 TRAINING AIRCRAFT AND REMOTELY PILOTED TRAINING AIRCRAFT

(a) An applicant for, or the holder of, an ATO certificate shall ensure that each aircraft used for flight instruction and solo flights meets the following requirements:

(1) Except for flight instruction and solo flights in a curriculum for agricultural aircraft operations, external-load operations, and similar aerial work operations, all aircraft shall have a Curaçao standard certificate of airworthiness or a foreign equivalent of a Curaçao standard certificate of airworthiness, acceptable to the Authority.

(2) The aircraft shall be maintained and inspected in accordance with 8.3 of these regulations and an approved maintenance programme.

(3) The aircraft shall be equipped as provided in the training specifications for the approved course for which it is used.

(4) Except as provided in paragraph 3.3.4.2(a)(5) of this subsection, each aircraft used in flight training shall have at least two pilot stations with engine-power controls that can be easily reached and operated in a normal manner from both pilot stations.

(5) Aeroplanes with controls such as nose-wheel steering, switches, fuel selectors, and engine air flow controls that are not easily reached and operated in a conventional manner by both pilots may be used for flight instruction if the certificate holder determines that the flight instruction may be conducted in a safe manner considering the location of controls and their non-conventional operation, or both.

(b) An applicant for, or the holder of, an ATO certificate shall ensure that each RPA used for RPAS flight instruction and solo flights meets the following requirements:

(1) Except for flight instruction and solo flights in a curriculum for agricultural aircraft operations, external-load operations, and similar aerial work operations, the RPA shall have a Curaçao special certificate of airworthiness, “experimental certificate,” or a foreign equivalent of a Curaçao experimental certificate acceptable to the Authority.

(2) The RPA shall be maintained and inspected in accordance with Part 8 of these regulations and an approved maintenance programme.

(3) The RPA shall be equipped as provided in the training specifications for the approved course for which it is used.

(4) Each RPA used in a course involving IFR en route operations and instrument approaches shall be equipped and maintained for IFR operations. For manoeuvring of an RPA by reference to instruments, the RPA may be equipped as provided in the approved course of training.

3.3.4.3 FLIGHT SIMULATION TRAINING DEVICES

(a) An applicant for, or the holder of, an ATO certificate, approved to use FSTDs, shall show that each FSTD used for training and checking will be or is specifically qualified and approved by the Authority for:

(1) Each manoeuvre and procedure for the make, model, and series of aircraft, set of aircraft, aircraft type simulated, or RPAS, as applicable; and

(2) Each training programme or training course in which the FSTD is used.

(b) Each qualified and approved FSTD used by an ATO shall:

(1) Be maintained to ensure the reliability of the performances, functions, and all other characteristics that were required for its qualification;

(2) Be modified to conform with any modification to the aircraft or RPAS being simulated if the modification results in changes to performance, function, or other characteristics required for qualification;

(3) Be given a functional pre-flight check each day before being used; and

(4) Have a discrepancy log in which the instructor or evaluator, at the end of each training session, enters each discrepancy.

3.3.4.4 AERODROMES AND SITES

(a) Each applicant for, and holder of, an ATO certificate shall show that it has continuous use of each aerodrome and site (for helicopter training) at which training flights originate, and that the aerodrome has an adequate runway and the necessary equipment.

(b) The base aerodrome, and any alternative base aerodrome, at which flight crew training is being conducted shall have at least one runway or take-off area that allows training aircraft to make a normal take-off or landing at the maximum certificated take-off mass or maximum certificated landing mass under the following conditions:

(1) Under wind conditions of not more than 15 kt;

(2) At temperatures in the operating area equal to the mean high temperature for the hottest month of the year;

(3) If applicable, with the powerplant operation and landing gear and flap operation recommended by the manufacturer; and

(4) In the case of a take-off:

(i) Clearing all obstacles in the take-off flight path by at least 15 m (50 ft); and

(ii) With a smooth transition from lift-off to the best rate of climb speed without exceptional piloting skills or techniques.

(c) Each aerodrome shall:

(1) Have a wind direction indicator that is visible at ground level from the ends of each runway;

(2) Have adequate runway electrical lighting if used for night training; and

(3) Have a traffic direction indicator when:

(i) The aerodrome does not have an operating control tower; and

(ii) Traffic and wind advisories are not available.

(d) Except as specified in paragraph 3.3.4.4(e) of this subsection, each aerodrome used for night training flights shall have permanent runway lights.

(e) An aerodrome or seaplane base used for night training flights in seaplanes may be approved by the Authority to use adequate, non-permanent lighting or shoreline lighting.

(f) Training sites shall be available for:

(1) Confined area operation;

(2) Simulated engine-off autorotation; and

(3) Sloping ground operation.

3.3.5 ADDITIONAL SPECIFIC OPERATING RULES FOR FLIGHT CREW TRAINING

3.3.5.1 ATO PROCEDURES MANUAL – FLIGHT CREW TRAINING

(a) Each applicant for, or holder of, an ATO certificate shall prepare and maintain an ATO Procedures Manual containing information and instructions to enable flight crew instructional personnel to perform their duties and to provide guidance to students on how to comply with flight crew training course requirements.

(b) Documentation of each proposed flight crew training course curriculum, including syllabi, outlines, courseware, procedures, and documentation shall be contained in the ATO Procedures Manual.

(c) The ATO shall ensure that the flight crew training curricula contained in the ATO Procedures Manual are amended as necessary to keep the information contained therein up to date.

(d) Copies of all amendments to the flight crew training curricula contained in the ATO Procedures Manual shall be furnished promptly by the ATO to all persons or organisations to whom the manual has been issued.

(e) Detailed requirements pertaining to the flight crew training curricula that shall be contained in the ATO Procedures Manual are prescribed in IS 3.3.5.1.

3.3.5.2 RECORD KEEPING

(a) STUDENTS. An ATO that is approved to conduct flight crew training shall maintain a record for each trainee that contains:

(1) The name of the trainee;

(2) A copy of the trainee's airman certificate, if any, and any medical certificate;

(3) The name of the course and the make and model of flight training equipment used;

(4) The trainee's prerequisite experience and course time completed;

(5) The trainee's performance on each lesson and the name of the instructor providing instruction;

(6) The date and result of each end-of-course skill test and the name of the examiner conducting the test; and

(7) The number of hours of additional training that was accomplished after any unsatisfactory skill test.

(b) ATO PERSONNEL. An ATO that is approved to conduct flight crew training shall maintain a record for each instructor approved to instruct a flight crew training course approved in accordance with this subpart that indicates that the instructor has complied with all applicable instructor requirements of these regulations.

(c) RECORD RETENTION. An ATO shall keep all records for a minimum period of 2 years:

(1) For students, from the date of completion of flight crew training, testing, or checking; and

(2) For ATO personnel, from the date of the last employment.

(d) The ATO shall make the flight crew training records available to the Authority, upon request and within a reasonable time, and shall keep the records:

(1) For students, at the ATO or satellite ATO where the flight crew training, testing, or checking occurred; and

(2) For ATO personnel, at the ATO or satellite ATO where the person is employed.

(e) The ATO shall provide to a trainee, upon request and within a reasonable time, a copy of the trainee's flight crew training records.

3.3.5.3 GRADUATION CERTIFICATE

(a) An ATO shall issue a graduation certificate to each student who completes its approved flight crew training course.

(b) The graduation certificate shall be issued to the student upon completion of the flight crew training course and shall contain at least the following information:

(1) The name and certificate number of the ATO;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages;

(6) A certification of the information contained on the graduation certificate by the chief instructor for that course of training; and

(7) A statement showing the cross-country training that the student received in the course of training.

3.3.5.4 EXAMINING AUTHORITY

(a) An ATO shall meet the following prerequisites to receive initial approval for examining authority:

(1) The ATO shall complete the application for examining authority on a form and in a manner prescribed by the Authority;

(2) The ATO shall hold an ATO certificate and rating issued under this part;

(3) The ATO shall have held the rating in which examining authority is sought for at least 24 consecutive calendar months preceding the month of application for examining authority;

(4) The training course for which examining authority is requested may not be a course that is approved without meeting the minimum ground and flight training time requirements of this part; and

(5) Within 24 calendar months before the date of application for examining authority, at least 90 per cent of the students in the ATO shall have passed, on the first attempt, the required knowledge or skill test, or any combination thereof, for the licence or rating for which examining authority is sought, and that test was given by:

(i) A licensed inspector; or

(ii) A designated examiner who is not an employee of the ATO.

(b) The examining authority of the ATO is valid for 24 months, unless suspended or revoked by the Authority, and may be renewed upon request to the Authority by the ATO.

(c) An ATO that holds examining authority may recommend a person who graduated from its course for the appropriate knowledge or skill test.

(d) An ATO that holds examining authority will administer the tests or checks as required by Parts 2 or 8 of these regulations and as appropriate to the licence or rating sought.

(e) An ATO that holds examining authority shall:

(1) Maintain a record of all temporary airman licences or ratings it issues, which shall consist of the following information in chronological order:

(i) The date the temporary airman licence was issued;

(ii) The name of the student to whom the temporary airman licence was issued, and that student's permanent mailing address and telephone number;

(iii) The training course from which the student graduated;

(iv) The name of the person who conducted the knowledge or skill test;

(v) The type of temporary airman licence or rating issued to the student; and

(vi) The date the student's airman application file was sent to the Authority for processing for a permanent airman licence;

(2) Maintain a copy of the record containing each student's graduation certificate, airman application, temporary airman licence, superseded airman licence (if applicable), and knowledge test or skill test results; and

(3) Retain these records for 2 years and make them available to the Authority upon request. These records shall be surrendered to the Authority when the ATO ceases to have examining authority.

3.3.5.5 STUDENT TRANSFER OF CREDIT BETWEEN ATOS

(a) A person who transfers from one ATO to another ATO may receive credit for that previous flight crew training, provided the following requirements are met:

(1) The maximum credited training time does not exceed one-half of the receiving ATO's curriculum requirements;

(2) The person completes a knowledge and skill test conducted by the receiving ATO for the purpose of determining the amount of experience and knowledge to be credited;

(3) The receiving ATO determines, based on the person's performance on the knowledge and skill test required by paragraph 3.3.5.5(a)(2) of this subsection, the amount of credit to be awarded, and records that credit in the person's training record;

(4) The person who requests credit for previous experience and knowledge obtained the experience and knowledge from another ATO approved training course; and

(5) The receiving ATO retains a copy of the person's training record from the previous ATO.

3.3.5.6 INSPECTION OF AN ATO

(a) Each ATO shall allow the Authority to inspect the ATO personnel, facilities, equipment, materials, and records at any reasonable time and in any reasonable place to determine the ATO's compliance with these regulations and with the ATO certificate and training specifications issued to the ATO.

3.4 ADDITIONAL REQUIREMENTS FOR INSTRUCTION – MAINTENANCE TRAINING

3.4.1 GENERAL

(a) In addition to the requirements of 3.2 of this part, this subpart prescribes requirements for an ATO instructing maintenance curricula.

3.4.2 CURRICULUM APPROVAL FOR MAINTENANCE TRAINING

3.4.2.1 TRAINING COURSES

(a) The Authority may approve an applicant for, or the holder of, an ATO certificate to conduct the following courses of instruction, as provided in the training specifications and provided the applicant meets the requirements of this part and Part 2 of these regulations:

(1) AMT licence course;

(2) Airframe rating course;

(3) Powerplant rating course;

(4) Airframe and powerplant combined ratings course;

(5) Avionics rating course;

(6) RPAS maintenance course; and

(7) Other courses, as the Authority may approve.

3.4.2.2 TRAINING COURSE APPROVAL – QUALIFICATION-BASED AND ALTERNATIVE MEANS OF COMPLIANCE

(a) An applicant for, or the holder of, an ATO certificate shall apply to the Authority for approval for each maintenance training course to be offered or amended.

(1) The applicant or ATO shall submit two copies of each maintenance training course or amendment to the Authority as part of the application.

(2) The applicant or ATO shall submit the application to the Authority at least 30 days before any training under the course is scheduled to begin.

(b) Except as provided in 3.4.2.3 of this part, each maintenance training course for which approval is requested shall meet the minimum maintenance training time requirements specified in Part 2 of these regulations for the licence, rating, or authorisation sought.

(c) Each maintenance training course for which approval is requested shall contain:

(1) A description of each room used for maintenance training, including the room size and the maximum number of students that may be trained in the room at one time unless the course is provided via an internet-based training medium;

(2) A description of each type of audiovisual aid, projector, tape recorder, mockup, chart, aeronautical product, and other special training aid used for maintenance training;

(3) A description of the minimum equipment to be used in each course;

(4) The minimum qualifications and ratings for each instructor assigned to maintenance training, including initial and recurrent training; and

(5) A training syllabus that includes the following information:

(i) The prerequisites for enrolling in the course;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) The subjects and items to be covered and the level of proficiency required;

(iv) For each subject, the proportions of theory and other instruction to be given;

(v) A description of what the course is expected to accomplish with regard to student learning;

(vi) The expected accomplishments and the standards for each stage of training, including the required practical projects to be completed; and

(vii) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

3.4.2.3 TRAINING COURSE APPROVAL – ALTERNATIVE MEANS OF COMPLIANCE AND COMPETENCY-BASED TRAINING AND ASSESSMENT

(a) An ATO may request and receive initial approval for a period of not more than 24 calendar months for any maintenance training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that:

(1) The ATO shows that the training will provide a level of competency at least equal to the minimum experience requirements for personnel not receiving such instruction; and

(2) The following conditions are met:

(i) The ATO holds an ATO certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(ii) In addition to the information required by paragraph 3.4.2.2(c) of this part, the training course specifies planned maintenance training time requirements for the course;

(iii) The ATO shall not request that the maintenance training course be approved for examining authority, nor may that ATO hold examining authority for that course; and

(iv) The knowledge test and/or skill test for the maintenance training course shall be given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO.

(b) An ATO may request and receive final approval for any maintenance training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that the following conditions are met:

(1) The ATO has held initial approval for that maintenance training course for at least 24 calendar months;

(2) The ATO has:

(i) Instructed at least 10 students in that maintenance training course within the preceding 24 calendar months and has recommended those students for an AMT certificate or rating; and

(ii) At least 80 per cent of those students passed the knowledge or skill test, as appropriate, on the first attempt, and that test was given by:

(A) A licensed inspector; or

(B) An examiner who is not an employee of the ATO;

(3) In addition to the information required by paragraph 3.4.2.2(c) of this part, the training course specifies planned theoretical knowledge and practical training time requirements for the course; and

(4) The ATO shall not request that the maintenance training course be approved for examining authority, nor may that ATO hold examining authority for that course.

3.4.3 PERSONNEL REQUIRED FOR MAINTENANCE TRAINING

(a) An applicant for, or the holder of, an ATO certificate for instructing maintenance curricula shall have the following personnel:

(1) A Director of Training; and

(2) An adequate number of instructors relevant to the courses provided.

(b) Each instructor to be used for maintenance training shall have received the appropriate training and shall hold the appropriate licences and/or ratings as required by Part 2 of these regulations.

(c) The duties and qualifications of training and instruction personnel listed in paragraph 3.4.3(a) of this subsection are as follows:

(1) DIRECTOR OF TRAINING. The Director of Training shall have overall responsibility for ensuring satisfactory integration of theoretical knowledge instruction and practical training and for supervising the progress of individual students. The Director of Training shall have extensive experience in training as an instructor for AMT licensing and shall possess a sound managerial capability.

(2) INSTRUCTORS.

(i) Each ATO shall provide the number of instructors holding appropriate licences and ratings, issued under Part 2 of these regulations, that the Authority determines is necessary to provide adequate instruction and supervision of the students.

(ii) An ATO may provide specialized instructors who are not licensed, but who are approved in accordance with Part 2 of these regulations, to teach mathematics, physics, drawing, basic electricity, basic hydraulics, and similar subjects.

3.4.4 FACILITIES, EQUIPMENT, AND MATERIALS REQUIRED FOR MAINTENANCE TRAINING

(a) An applicant for, or the holder of, an ATO certificate shall have facilities, equipment, and materials, as determined by the Authority, appropriate for the maximum number of students expected to be taught at any time, as follows:

(1) An enclosed classroom;

(2) Suitable facilities arranged to assure proper separation from the working space, for parts, tools, materials, and similar articles;

(3) A suitable area for the application of finishing materials, including paint spraying;

(4) Suitable areas equipped with washtank and degreasing equipment with air pressure or other adequate cleaning equipment;

(5) Suitable facilities for running engines;

(6) A suitable area with adequate equipment, including benches, tables, and test equipment, to disassemble, service, and inspect:

(i) Ignition systems, electrical equipment, and appliances;

(ii) Carburettors and fuel systems; and

(iii) Hydraulic and vacuum systems for aircraft, aircraft engines, and their appliances.

(7) Suitable space with adequate equipment, including tables, benches, stands, and jacks, for disassembling, inspecting, and rigging aircraft and RPAS; and

(8) Suitable space with adequate equipment for disassembling, inspecting, assembling, troubleshooting, and timing engines.

(b) An applicant for, or the holder of, an ATO certificate with approved AMT courses shall have and maintain the following instructional equipment, appropriate to the rating sought:

(1) Various types of aeronautical products (including propellers) of a quantity and type suitable to complete the practical projects required by the approved training programme; and

(2) At least one aircraft of a type acceptable to the Authority.

(c) An applicant for, or the holder of, an ATO certificate with an AMT rating shall have aeronautical products to be used for instruction and from which students will gain practical working experience. The applicant or ATO shall ensure that the aeronautical products are sufficiently diversified as to show the different methods of construction, assembly, inspection, and operation when installed in an aircraft for use.

(d) An applicant for, or the holder of, an ATO certificate with an AMT rating, or an applicant seeking an additional AMT rating, shall have at least the facilities, equipment, and materials appropriate to the rating sought.

(e) An applicant for, or the holder of, an ATO certificate with an AMT rating shall maintain, on the premises and under the full control of the ATO, an adequate supply of materials, special tools, and shop equipment used in constructing and maintaining aircraft, appropriate to the approved training programme of the ATO, in order to assure that each student will be properly instructed.

(f) An ATO may not make a substantial change in facilities, equipment, or materials that have been approved for a particular training programme unless that change is approved by the Authority in advance.

3.4.5 ADDITIONAL SPECIFIC OPERATING RULES FOR MAINTENANCE TRAINING

3.4.5.1 ATO PROCEDURES MANUAL – MAINTENANCE TRAINING

(a) Each applicant for, or holder of, an ATO certificate shall prepare and maintain an ATO Procedures Manual containing information and instructions to enable maintenance instructional personnel to perform their duties and to give guidance to students on how to comply with course requirements.

(b) Documentation of each proposed maintenance training course curriculum, including syllabi, outlines, courseware, procedures, and documentation, shall be contained in the ATO Procedures Manual.

(c) The ATO shall ensure that the maintenance training curricula contained in the ATO Procedures Manual are amended as necessary to keep the information contained therein up-to-date.

(d) Copies of all amendments to the maintenance training curricula contained in the ATO Procedures Manual shall be furnished promptly by the ATO to all persons or organisations to which the manual has been issued.

(e) Detailed requirements pertaining to the maintenance training curricula that shall be contained in the ATO Procedures Manual are prescribed in IS 3.4.5.1.

3.4.5.2 RECORD KEEPING

(a) STUDENTS. An ATO that is approved to conduct maintenance training shall maintain a record for each trainee that contains:

(1) The name of the trainee;

(2) A copy of the trainee's airman certificate, if any;

(3) The name of the course and the instruction credited;

(4) The trainee's prerequisite experience and course time completed;

(5) The trainee's performance on each lesson and the name of the instructor providing the instruction;

(6) The date and result of each end-of-course test and the name of the examiner conducting the test;

(7) The number of hours of additional training accomplished after any unsatisfactory test; and

(8) A current progress chart or individual progress record for each student, showing the practical projects or laboratory work completed, or to be completed, in each subject.

(b) ATO PERSONNEL. An ATO that is approved to conduct maintenance training shall maintain a record for each instructor approved to instruct a course approved in accordance with this subpart that indicates that the instructor has complied with all applicable instructor requirements of these regulations.

(c) RECORD RETENTION. An ATO shall keep all maintenance training records for a minimum period of 2 years:

(1) For students, from the date after completion of maintenance training, testing, or checking; and

(2) For ATO personnel, from the date of the last employment.

(d) The ATO shall make the maintenance training records available to the Authority, upon request and within a reasonable time, and shall keep the records:

(1) For students, at the ATO or satellite ATO where the maintenance training, testing, or checking occurred; and

(2) For ATO personnel, at the ATO or satellite ATO where the person is employed.

(e) The ATO shall provide to a trainee, upon request and within a reasonable time, a copy of the trainee's maintenance training records.

3.4.5.3 GRADUATION CERTIFICATE

(a) An ATO shall issue a graduation certificate to each student who completes its approved course of training.

(b) The graduation certificate shall be issued to the student upon completion of the course of training and shall contain at least the following information:

(1) The name and certificate number of the ATO;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages; and

(6) A certification of the information contained on the graduation certificate by the Director of Training for that course of training.

3.4.5.4 EXAMINING AUTHORITY

(a) An ATO shall meet the following prerequisites to receive initial approval for examining authority:

(1) The ATO shall complete the application for examining authority on a form and in a manner prescribed by the Authority;

(2) The ATO shall hold an ATO certificate and rating issued under this part;

(3) The ATO shall have held the rating in which examining authority is sought for at least 24 consecutive calendar months preceding the month of application for examining authority; and

(4) Within 24 calendar months before the date of application for examining authority, at least 90 per cent of the students in the ATO shall have passed, on the first attempt, the required knowledge or skill test, or any combination thereof, for the licence or rating for which examining authority is sought, and that test shall have been given by:

(i) A licensed inspector; or

(ii) A designated examiner who is not an employee of the ATO.

(b) The examining authority of the ATO is valid for 24 months, unless suspended or revoked by the Authority, and may be renewed upon request to the Authority by the ATO.

(c) An ATO that holds examining authority may recommend a person who graduated from its course for the appropriate knowledge or skill test.

(d) An ATO that holds examining authority will administer the tests as required by Part 2 of these regulations and as appropriate to the licence or rating sought.

(e) An ATO that holds examining authority may conduct knowledge and skill tests on a progressive schedule if approved by the Authority. This may be necessary due to the length and complexity of an inclusive maintenance training programme.

(f) An ATO that holds examining authority shall:

(1) Maintain a record of all temporary licences or ratings it issues, which shall consist of the following information in chronological order:

(i) The date the temporary licence was issued;

(ii) The name of the student to whom the temporary certificate was issued and that student's permanent mailing address and telephone number;

(iii) The training course from which the student graduated;

(iv) The name of the person who conducted the knowledge or skill test;

(v) The type of temporary licence or rating issued to the student; and

(vi) The date the student’s application file was sent to the Authority for processing for a permanent licence;

(2) Maintain a copy of the record containing each student's graduation certificate, application, temporary licence, superseded licence (if applicable), and knowledge test or skill test results; and

(3) Retain these records for 2 years and make them available to the Authority upon request. These records shall be surrendered to the Authority when the ATO ceases to have examining authority.

3.4.5.5 STUDENT TRANSFER OF CREDIT BETWEEN ATOS

(a) A person who transfers from one ATO to another ATO may receive credit for that previous maintenance training, provided the following requirements are met:

(1) The maximum credited training time does not exceed one-half of the receiving ATO’s curriculum requirements for the licence or rating;

(2) The person completes a knowledge and skill test conducted by the receiving ATO for the purpose of determining the amount of experience and knowledge to be credited;

(3) The receiving ATO determines, based on the person's performance on the knowledge and skill test required by paragraph 3.4.5.5(a)(2) of this subsection, the amount of credit to be awarded and records that credit in the person's training record; and

(4) The receiving ATO retains a copy of the person's training record from the previous ATO.

3.4.5.6 INSPECTION OF AN ATO

(a) Each ATO shall allow the Authority to inspect the ATO facilities, equipment, materials, and records at any reasonable time and in any reasonable place to determine the ATO's compliance with these regulations and the ATO certificate and training specifications issued to the ATO.

3.5 ADDITIONAL REQUIREMENTS FOR INSTRUCTION – ATC TRAINING

3.5.1 GENERAL

(a) In addition to the requirements of 3.2 of this part, this subpart prescribes requirements for an ATO instructing ATC curricula.

3.5.2 CURRICULUM APPROVAL FOR ATC TRAINING

3.5.2.1 TRAINING COURSES

(a) The Authority may approve an applicant for, or the holder of, an ATO certificate to conduct the following courses of instruction, as provided in the training specifications and provided the applicant meets the requirements of this part and Part 2 of these regulations:

(1) ATC Initial Training course (ADC and APP);

(2) Aerodrome Control Rating Training course (ADC);

(3) Approach Control Procedural Rating Training course (APP);

(4) Approach Surveillance Rating Training course (APS);

(5) Area Control Procedural Rating Training course (ACP);

(6) Area Control Surveillance Rating Training course (ACS);

(7) Refresher Training Aerodromes Control course;

(8) Refresher Training Approach Control Procedural course;

(9) Refresher Training Approach Surveillance course;

(10) Refresher Training Area Control Procedural course;

(11) Refresher Training Area Control Surveillance course;

(12) Classroom Instructor Course for Air Traffic Controllers;

(13) On-The-Job Instructor Course for Air Traffic Controllers;

(14) Refresher Training Classroom Instructor Course for Air Traffic Controllers;

(15) Refresher Training On-The-Job Instructor Course for Air Traffic Controllers;

(16) Other courses, as the Authority may approve.

3.5.2.2 TRAINING COURSE APPROVAL – QUALIFICATION-BASED AND ALTERNATIVE MEANS OF COMPLIANCE

(a) An applicant for, or the holder of, an ATO certificate shall apply to the Authority for approval for each air traffic control training course to be offered or amended.

(1) The applicant or ATO shall submit two copies of each ATC training course or amendment to the Authority as part of the application.

(2) The applicant or ATO shall submit the application to the Authority at least 30 days before any training under the course is scheduled to begin.

(b) Except as provided in 3.5.2.3 of this part, each ATC training course for which approval is requested shall meet the minimum ATC training time requirements specified in Part 2 of these regulations for the licence, rating, or authorisation sought.

(c) Each training course for which approval is requested shall contain:

(1) A description of each room used for ATC training, including the room size and the maximum number of students that may be trained in the room at one time unless the course is provided via an internet-based training medium;

(2) A description of each type of audiovisual aid, projector, tape recorder, mockup, chart, aeronautical product, and other special training aid used for ATC training;

(3) A description of the minimum equipment to be used in each course;

(4) The minimum qualifications and ratings for each instructor assigned to ATC training, including initial and recurrent training; and

(5) A training syllabus that includes the following information:

(i) The prerequisites for enrolling in the course;

(ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) The subjects and items to be covered and the level of proficiency required;

(iv) For each subject, the proportions of theory and other instruction to be given;

(v) A description of what the course is expected to accomplish with regard to student learning;

(vi) The expected accomplishments and the standards for each stage of training, including the required practical projects to be completed; and

(vii) A description of the checks and tests to be used to measure a student's accomplishments for each stage of training.

3.5.2.3 TRAINING COURSE APPROVAL – ALTERNATIVE MEANS OF COMPLIANCE AND COMPETENCY-BASED TRAINING AND ASSESSMENT

(a) An ATO may request and receive initial approval for a period of not more than 24 calendar months for any ATC training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that:

(1) The ATO shows that the training will provide a level of competency at least equal to the minimum experience requirements for personnel not receiving such instruction; and

(2) The following conditions are met:

(i) The ATO holds an ATO certificate issued under this part and has held that certificate for a period of at least 24 consecutive calendar months preceding the month of the request;

(ii) In addition to the information required by paragraph 3.5.2.2(c) of this part, the training course specifies planned ATC training time requirements for the course;

(iii) The ATO shall not request that the ATC training course be approved for examining authority, nor may that ATO hold examining authority for that course; and

(iv) The knowledge test and/or skill test for the course shall be given by:

(A) An PEL officer or ANS inspector; or

(B) An examiner who is designated by CCAA.

(b) An ATO may request and receive final approval for any ATC training course under this part that does not meet the minimum hours for a licence or rating prescribed by Part 2 of these regulations, provided that the following conditions are met:

(1) The ATO has held initial approval for that training course for at least 24 calendar months;

(2) The ATO has:

(i) Instructed at least 5 students in that training course within the preceding 24 calendar months and has recommended those students for an ATC license or rating; and

(ii) At least 80 per cent of those students passed the knowledge or skill test, as appropriate, on the first attempt, and that test was given by:

(A) A PEL officer or ANS inspector; or

(B) An examiner who is designated by CCAA;

(3) In addition to the information required by paragraph 3.5.2.2(c) of this part, the training course specifies planned theoretical knowledge and practical training time requirements for the course; and

(4) The ATO shall not request that the training course be approved for examining authority, nor may that ATO hold examining authority for that course.

3.5.3 PERSONNEL REQUIRED FOR AIR TRAFFIC CONTROL TRAINING

(a) An applicant for, or the holder of, an ATO certificate for instructing Air traffic control curricula shall have the following personnel:

(1) A Head of Training;

(2) A Chief Instructor, as applicable

(3) An adequate number of instructors relevant to the courses provided.

(b) Each instructor to be used for training shall have received the appropriate training and shall hold the appropriate licences and/or ratings as required by Part 2 of these regulations.

(c) The duties and qualifications of training and instruction personnel listed in paragraph 3.5.3(a) of this subsection are as follows:

(1) HEAD OF TRAINING. The Head of Training shall have overall responsibility for ensuring satisfactory integration of theoretical knowledge instruction and practical training and for supervising the progress of individual students. The Head of Training shall have extensive experience as Head of Training and shall possess a sound managerial capability.

(2) INSTRUCTORS.

(i) Each ATO shall provide the number of instructors holding appropriate qualifications, licences and ratings, issued under Part 2 of these regulations, that the Authority determines is necessary to provide adequate instruction and supervision of the students.

(ii) An ATO may provide specialised instructors who are not licensed, but who are approved in accordance with Part 2 of these regulations, to teach Air law, Air Traffic Control Equipment, General Knowledge, Human Performance, Meteorology, Navigation, Operation procedures, and similar subjects.

3.5.4 FACILITIES, EQUIPMENT, AND MATERIALS REQUIRED FOR MAINTENANCE TRAINING

(a) An applicant for, or the holder of, an ATO certificate shall have facilities, equipment, and materials, as determined by the Authority, appropriate for the maximum number of students expected to be taught at any time, as follows:

(1) An enclosed and adequate classroom;

(2) Appropriate simulator, office and rest accommodation;

(3) Adequate briefing rooms/cubicles of sufficient size and number;

(4) Suitable offices for the supervisory staff and room(s) to allow instructors to write reports on students, complete records, etc.;

(i) room (s) for Administration.

(ii) Toilet (s)

(iii) Secure storage facilities which can be combined with office accommodation.

(5) Availability of copying and printing facilities

(6) A library which must be provided containing all current training material appropriate to the scope and level of training undertaken.

(b) An ATO may not make a substantial change in facilities, equipment, or materials that have been approved for a particular training programme unless that change is approved by the Authority in advance.

3.5.4.1 SIMULATION TRAINING DEVICES

(a) An applicant for, or the holder of, an ATO certificate, approved to use STDs, shall show that each STD used for training and checking will be or is specifically qualified and approved by the Authority for:

(1) Each training programme or training course in which the STD is used.

(b) Each qualified and approved STD used by an ATO shall:

(1) Be maintained to ensure the reliability of the performances, functions, and all other characteristics that were required for its qualification;

(2) Be given a functional check each time before being used; and

(3) Have a discrepancy log in which the instructor or evaluator, at the end of each training session, enters each discrepancy.

3.5.5 ADDITIONAL SPECIFIC OPERATING RULES FOR AIR TRAFFIC CONTROL TRAINING

3.5.5.1 ATO TRAINING AND PROCEDURES MANUAL – ATC TRAINING

(a) Each applicant for, or holder of, an ATO certificate shall prepare and maintain an ATO Training and Procedures Manual containing information and instructions to enable ATC instructional personnel to perform their duties and to give guidance to students on how to comply with course requirements.

(b) Documentation of each proposed air traffic control training course curriculum, including syllabi, outlines, courseware, procedures, and documentation, shall be contained in the ATO Training and Procedures Manual.

(c) The ATO shall ensure that the ATC training curricula contained in the ATO Training and Procedures Manual are amended as necessary to keep the information contained therein up-to-date.

(d) Copies of all amendments to the air traffic control training curricula contained in the ATO Training and Procedures Manual shall be furnished promptly by the ATO to all persons or organisations to which the manual has been issued.

(e) Detailed requirements pertaining to the air traffic control training curricula that shall be contained in the ATO Training and Procedures Manual are prescribed in

3.5.5.2 RECORD KEEPING

(a) STUDENTS. An ATO that is approved to conduct air traffic control training shall maintain a record for each trainee that contains:

(1) The name of the trainee;

(2) A copy of the trainee's medical certificate, if any;

(3) The name of the course and the instruction credited;

(4) The trainee's prerequisite experience and course time completed;

(5) The trainee's performance on each lesson and the name of the instructor providing the instruction;

(6) The date and result of each end-of-course test and the name of the examiner conducting the test, if applicable;

(7) The number of hours of additional training accomplished after any unsatisfactory test; and

(8) A current progress chart or individual progress record for each student, showing the practical projects or laboratory work completed, or to be completed, in each subject.

(b) ATO PERSONNEL. An ATO that is approved to conduct air traffic control training shall maintain a record for each instructor approved to instruct a course approved in accordance with this subpart that indicates that the instructor has complied with all applicable instructor requirements of these regulations.

(c) RECORD RETENTION. An ATO shall keep all air traffic control training records for a minimum period of 5 years:

(1) For students, from the date after completion of air traffic control training, testing, or checking; and

(2) For ATO personnel, from the date of the last employment.

(d) The ATO shall make the air traffic control training records available to the Authority, upon request and within a reasonable time, and shall keep the records:

(1) For students, at the ATO where the ATC training, testing, or checking occurred; and

(2) For ATO personnel, at the ATO where the person is employed.

(e) The ATO shall provide to a trainee, upon request and within a reasonable time, a copy of his or her ATC training records.

3.5.5.3 GRADUATION CERTIFICATE

(a) An ATO shall issue a graduation certificate to each student who completes its approved course of training.

(b) The graduation certificate shall be issued to the student upon completion of the course of training and shall contain at least the following information:

(1) The name and certificate number of the ATO;

(2) The name of the graduate to whom it was issued;

(3) The course of training for which it was issued;

(4) The date of graduation;

(5) A statement that the student has satisfactorily completed each required stage of the approved course of training, including the tests for those stages; and

(6) A certification of the information contained on the graduation certificate by the Head of Training for that course of training.

3.5.5.4 INSPECTION OF AN ATO

(a) Each ATO shall allow the Authority to inspect the ATO facilities, equipment, materials, and records at any reasonable time and in any reasonable place to determine the ATO's compliance with these regulations and the ATO certificate and training specifications issued to the ATO.

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CURAÇAO CIVIL AVIATION REGULATIONS

Part 3 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 3.2.1.3 reflects a standard required by 3.2.1.3 of this part.

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PART 3 – IMPLEMENTING STANDARDS

IS 3.2.1.3 ATO CERTIFICATE

(a) The ATO certificate issued by the Authority will be as follows:

CURAÇAO

MINISTRY OF
TRAFFIC, TRANSPORT AND URBAN PLANNING
CURAÇAO CIVIL AVIATION AUTHORITY

Approved Training Organisation Certificate

Number: **[enter Certificate Number]**

This certificate is issued to:
[enter ATO NAME]

Whose principal business address is:
[enter ATO ADDRESS]

Upon finding that its organisation complies in all respects with the regulations of the Curaçao Civil Aviation Regulations Part 3 relating to the establishment of an Approved Training Organisation namely **[enter ATO NAME]** and is empowered to operate an Approved Training Organisation in accordance with the Training Specifications issued herewith and may conduct the Approved courses.

[enter ATO NAME] shall attain prior approval of the Curaçao Civil Aviation Authority upon starting new or amending current training modules.

This certificate is valid from **[enter issue DATE]** and shall continue in effect until ***(enter date 12 months after first issue, 24 months after second and further issues)***, unless surrendered, suspended or revoked.

On behalf of the Minister of Traffic,
Transport & Urban Planning,

[enter NAME CCAA DG],
Director General of the
Curaçao Civil Aviation Authority

Date of issue:

This certificate is non-transferable

IS 3.2.1.17 QUALITY SYSTEM AND QUALITY ASSURANCE PROGRAMME

(a) In order to show compliance with 3.2.1.17 of this part, an ATO shall establish its quality system and quality assurance programme in accordance with the instruction and information contained in the following paragraphs.

1.0 Quality Policy and Strategy

1.1 The ATO shall describe how it performs the organisation and management of its training operations in order to ensure it operates in conformity with the ATO Procedures Manual and as approved by the Authority. A formal, written quality policy statement shall be prepared that establishes a commitment by the accountable manager of the ATO to achieving and maintaining the highest possible standards in quality. The quality policy shall reflect the achievement of continued compliance with all applicable [STATE] regulations and any additional standards specified by the ATO.

1.2 The accountable manager of the training organisation shall have the overall responsibility for the standard of quality, including the frequency, format, and structure of the internal management review and analysis activities, and may delegate to a quality manager the responsibility for the tasks defined under paragraph 2 of this IS. Depending on the size and scope of the ATO and the requirements of the Authority, the accountable manager and quality manager may interact in different ways, as illustrated in the organisational charts in ICAO Doc 9841, *Manual on the Approval of Training Organizations,* Appendix C.

2.0 Quality Manager

2.1 The primary role of the quality manager is to verify, by monitoring activities in the field of training, that the standards as established by the ATO and any additional requirements of the Authority are being carried out properly.

2.2 The quality manager shall be responsible for ensuring that the quality system is properly documented, implemented, maintained, and continuously reviewed and improved.

2.3 The quality manager shall:

(a) Report directly to the Director of Training (see Note); and

(b) Have unencumbered access to all parts of the ATO.

Note: When the Director of Training is not the accountable manager, reporting mechanisms shall be instituted to ensure that the accountable manager is aware of all issues impacting the quality of the training services being provided by the affected ATO (see ICAO Doc 9841, Manual on the Approval of Training Organizations, *Appendix C, Figure C-2).*

2.4 The quality manager shall be responsible for ensuring that personnel training related to the quality system is conducted.

3.0 Quality Assurance

3.1 The term "quality assurance" is frequently misunderstood to mean the testing and checking of products and services. ATOs that do only checking and testing activities are merely applying quality control measures, which are designed to catch product and service defects but not necessarily prevent them. For example, an ATO that administers exams at the end of the training syllabus, only to discover that a large proportion of the students failed to meet the required standard, has only identified a deficiency in expected results. The implication may be that there is a problem with the training programme, or the instructor, or even the student selection criteria. In this instance, the ATO has no idea what the real problem is or what to do about it. Quality control by itself provides limited value without the suite of complementary activities that comprise quality assurance.

3.2 Quality assurance, on the other hand, attempts to improve and stabilise the training process and to identify and avoid, or at least minimise, issues that lead to problems in the first place. It continuously verifies that standards are adhered to throughout the training process by introducing various checkpoints and controls. It further introduces a system of audits to ensure that documented policies, processes, and procedures are consistently followed. It is the "assurance" part of quality management.

3.3 A quality assurance plan for an ATO shall encompass well-designed and documented policies, processes, and procedures for at least the following activities:

(a) Monitoring training services and process controls;

(b) Monitoring assessment and testing methods;

(c) Monitoring personnel qualifications and training;

(d) Monitoring training devices and equipment qualification, calibration, and functionality, as applicable;

(e) Conducting internal and external audits;

(f) Developing, implementing, and monitoring corrective and preventive actions and associated reporting systems; and

(g) Utilising appropriate statistical analysis to identify and respond appropriately to trends.

3.4 An effective quality assurance plan will aid significantly in the ATO's compliance with requirements, its conformity with the standards, and the adequacy of its training activities. Taking the ATO's performance to a higher level requires a structure that ensures that the combined quality assurance effort of the employees reaches its full potential.

Note: ICAO Annex 1 requires ATOs only to establish and implement quality assurance policies, processes, and procedures acceptable to the Authority granting the approval, which ensures that training and instructional practices comply with all relevant requirements.

3.5 Quality assurance plans by themselves are subject to breakdowns in human performance and therefore require robust organisational structures that underpin the quality assurance efforts of individuals. It is for this reason that ATOs and States shall embrace the quality system governance model described in this IS.

4.0 Quality System for the ATO

4.1 A quality system is the aggregate of all the ATO's activities, plans, policies, processes, procedures, resources, incentives, and infrastructure working in unison towards a total quality management approach. It requires an organisational construct, complete with policies, processes, procedures, and resources, that underpins a commitment to achieving excellence in product and service delivery through the implementation of best practices in quality management.

4.2 An ATO that supports its quality assurance plan with a well-designed, -implemented, and -maintained quality system structure shall be able to easily and repeatedly achieve results that exceed both the requirements of the applicable national regulations and the expectations of the ATO's clients.

4.3 The basic attributes of an effective quality system shall include, but are not necessarily limited to:

(a) A managerial structure that facilitates and encourages clear and unencumbered access to the decision makers;

(b) An overarching company commitment to achieving excellence in training service delivery rather than to meeting minimum requirements;

(c) Quality policies, processes, and procedures that are well-designed, consistently applied, and subject to formalised review and refinement processes;

(d) An employee training plan that instils and promotes best practices in quality management efforts;

(e) An organisational risk profile and corresponding risk management plan, which together provide a comprehensive list of hazards that are tied to the ATO's activities and establish mitigating measures to effectively manage those risks that threaten the achievement of desired standards of performance; and

(f) A strategic review of policies and procedures that measures the organisation's current assumptions, objectives, and plans by applying a relevance test matched to evolving trends in the industry or changes occurring within the ATO.

5.0 Organisational Risk Profile

5.1 An organisational risk profile is an inventory of identified hazards and threats that present risks that are likely to prevent conformity with the required standards of performance. This "threat to quality" list is normally derived by first establishing a directory of those activities that routinely take place in order to deliver and administer a training programme. Once complete, the activity directory is then expanded to identify the hazards and threats associated with each individual activity. Some examples of routine activities that shall be examined during this process are:

(a) Selection and training of personnel;

(b) Training programme development, validation, and review;

(c) Development and maintenance of training courseware;

(d) Administrative personnel duties in support of the training programme, the instructors and evaluators, and the students;

(e) Delivery of training;

(f) Record keeping;

(g) Assessment and examination processes; and

(h) Client and Authority feedback.

5.2 The risks identified through this exercise shall not be limited to just those that currently exist but shall also include those potential risks that may arise from a change to existing circumstances or conditions.

6.0 Risk Management Plan

6.1 A risk management plan is designed to mitigate the identified risks, real or potential, that were derived from the organisational risk profile exercise. The plan's objective is not to eliminate risk so much as it is to effectively manage risk by putting in place risk-controlling measures.

6.2 A well-developed and -implemented risk management plan will substantially aid in accurately scoping out the depth and frequency of planned quality-assurance-related activities.

6.3 The plan shall be subject to the management review process outlined in paragraph 4.3(f) of this IS.

6.4 The current risk management plan shall be readily accessible to all employees so that it can be accurately followed and open to comment for improvement.

7.0 Coherence Matrix

7.1 A coherence matrix, sometimes known as a correspondence matrix, is a very powerful addition to the ATO's compliance efforts. It is a detailed, tabulated document that lists all the applicable regulatory requirements imposed on the ATO. Beside each listed provision there shall be at least two descriptive elements that identify:

(a) The existing process(es) that is (are) designed to ensure continuous compliance with that specific regulation or standard; and

(b) The individual managerial position responsible for the effective implementation of each process.

7.2 The coherence matrix shall indicate the next intended and most recently completed audits designed to validate the functionality of each of the identified processes. Any recent audit findings shall be listed in the matrix or referred to as being documented in a separate register of findings.

7.3 The coherence matrix is developed and managed by the quality manager and is subject to the management review process.

7.4 The current coherence matrix shall be readily accessible to all employees so it can be accurately followed and open to comment for improvement.

8.0 Corrective and Preventive Action Reports

8.1 Quality assurance plans shall include a well-structured reporting system to ensure that suggestions by ATO personnel for both corrective and preventive actions are recorded and promptly addressed. Paragraph 3.3(f) of this IS identifies this as a necessary component of quality assurance.

8.2 After an analysis of the reports submitted, the reporting system shall specify who is required to rectify a discrepancy and/or nonconformity in each particular case and the procedure to be followed if corrective action is not completed within an appropriate timescale. Just as important, the reporting system shall identify who is required to investigate and act upon any report identifying measures that may prevent a nonconformity from occurring.

8.3 Corrective and preventive action reports shall be able to be submitted anonymously, if individuals so choose, to maximise the opportunity for open and effective reporting.

8.4 Since corrective and preventive action reports, in this instance, represent suggestions for improvement in conformity levels and deal with quality issues, this reporting system and its processes shall be managed by the quality manager.

9.0 Quality-Related Documentation

9.1 Relevant documentation includes part(s) of the ATO Procedures Manual that may be included in a separate Quality Manual.

9.2 In addition, the relevant documentation shall include the following:

(a) Description of the ATO;

(b) Quality policy and strategy;

(c) Glossary;

(d) Organisational risk profile;

(e) Risk management plan;

(f) Coherence matrix;

(g) Corrective and preventive action procedures and reporting system;

(h) Specified training standards;

(i) Assignment of duties and responsibilities related to quality assurance and the quality system; and

(j) Training procedures related to the quality system to ensure regulatory compliance.

10.0 Quality Assurance Programme

10.1 The quality assurance programme shall include all planned and systematic actions necessary to provide confidence that every training activity is conducted in accordance with all applicable requirements, standards, and procedures.

10.2 The quality assurance programme documentation shall reflect:

(a) The schedule of the monitoring process;

(b) Audit procedures;

(c) Reporting procedures;

(d) Follow-up and corrective action procedures;

(e) The record keeping system; and

(f) Document control.

11.0 Quality Inspection

11.1 The primary purpose of a quality inspection is to review a document or observe a particular event, action, etc., in order to verify whether established training procedures and requirements are followed during the conduct of the inspection and whether the required standard is achieved.

11.2 Examples of typical subject areas for quality inspections are:

(a) Actual training sessions;

(b) Maintenance, if applicable;

(c) Technical standards; and

(d) Training standards.

12.0 Quality Audits

12.1 An audit is a systematic and independent comparison between the way in which training is being conducted and the way in which it should be conducted according to the published training procedures.

12.2 Audits shall include at least the following quality procedures and processes:

(a) A description of the scope of the audit, which shall be explained to the personnel to be audited;

(b) Planning and preparation;

(c) The gathering and recording of evidence; and

(d) Analysis of the evidence.

12.3 The various techniques that make up an effective audit are:

(a) A review of published documents;

(b) Interviews or discussions with personnel;

(c) The examination of an adequate sample of records;

(d) The witnessing of the activities that make up the training; and

(e) The preservation of documents and the recording of observations.

13.0 Auditors

13.1 The ATO shall decide, depending on the complexity of the organisation and the training being conducted, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team shall have relevant training and/or operational experience.

13.2 The responsibilities of the auditors shall be clearly defined in the relevant documentation.

14.0 Auditor's Independence

14.1 Auditors shall not have any day-to-day involvement in the area of the operation or maintenance activity that is to be audited.

14.2 An ATO may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities through the use of part-time auditors. An ATO whose structure and size does not justify the establishment of full-time auditors may undertake the audit function using part-time personnel from within its own organisation or from an external source under the terms of an agreement acceptable to the Authority.

14.3 In all cases, the ATO shall develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist has some familiarity with the type of activity conducted by the ATO.

14.4 The quality assurance audit programme of the ATO shall identify the persons within the organisation who have the experience, responsibility, and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record concerns or findings and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific and reasonable timescales; and

(e) Report directly to the quality manager.

15.0 Audit Scheduling

15.1 A quality assurance audit programme shall include a defined audit schedule and a periodic review cycle. The schedule shall be flexible and shall allow unscheduled audits when negative trends are identified. The quality manager shall schedule follow-up audits when necessary to verify that a corrective action resulting from a finding was carried out and that it is effective.

15.2 An ATO shall establish a schedule of audits to be completed during a specific calendar period. This schedule shall be influenced by the organisational risk profile and shall be reflected in both the risk management plan and the coherence matrix documents. At a minimum, all aspects of the training shall be reviewed within a period of 12 months in accordance with the audit programme.

15.3 When an ATO defines the audit schedule, it shall take into account significant changes to management, the organisation, training, or technologies, as well as changes to standards and requirements.

16.0 Monitoring and Corrective Action

16.1 The aim of monitoring within the quality system is primarily to investigate and judge its effectiveness and thereby ensure that defined policy and training standards are continuously complied with. Monitoring and corrective action functions fall under the responsibilities of the quality manager. Monitoring activity is based upon:

(a) Quality inspections;

(b) Quality audits; and

(c) Corrective and preventive action reports and subsequent follow-up.

16.2 Any nonconformity identified as a result of monitoring shall be communicated by the quality manager to the manager responsible for taking corrective action or, if appropriate, to the Director of Training or, when circumstances warrant, to the accountable manager. Such nonconformity shall be recorded for the purpose of further investigation in order to determine the cause and enable the recommendation of an appropriate corrective action.

16.3 The quality assurance audit programme shall include procedures to ensure that corrective and preventive actions are developed in response to findings. Personnel implementing these procedures shall monitor such actions to ensure that they have been completed and to verify their effectiveness. Organisational responsibility and accountability for the implementation of a corrective action resides with the department in which the finding was identified. The accountable manager will have the ultimate responsibility for ensuring, through the quality manager, that the corrective action has reestablished conformity with the standard required by the ATO and any additional requirements established by the Authority or the ATO.

16.4 As part of its quality system, the ATO shall identify internal and external customers and shall monitor customer satisfaction by measurement and analysis of feedback.

17.0 Continuous Improvement Process

17.1 The quality manager shall be responsible for the review and continuous improvement of the established quality system's policies, processes, and procedures. The following tools, on which the quality manager shall rely, are essential to the ongoing continuous improvement process:

(a) Organisational risk profile;

(b) Risk management plan;

(c) Coherence matrix;

(d) Corrective and preventive action reports; and

(e) Inspection and audit reports.

17.2 These tools and processes are interrelated and help define the continuous improvement efforts of the organisation. For example, any corrective or preventive action report may identify a deficiency or an opportunity for improvement. As outlined in paragraph 16.2 of this IS, the quality manager shall ensure the identified issue is addressed and effectively implemented. The same shall be true if the discovery of an issue was identified during an inspection or audit.

17.3 The effective implementation of change and the subsequent validation that the change did indeed result in the desired outcome are critical to the continuous improvement process. Simply introducing a well-meaning suggestion for improvement into the organisation without carefully managing that change may have undesirable consequences. It is therefore incumbent upon the quality manager to responsibly introduce, monitor, and validate improvement efforts.

17.4 A simplistic but effective process to use in managing continuous improvement is known as the PDCA approach. Figure 1 depicts this continuous improvement process cycle:

Figure 1. PDCA Approach



(a) **Plan.** Map out the implementation of the recommended change, identifying at least:

(1) The people who will be affected by the change;

(2) The required quality control measures necessary to mitigate risk; and

(3) The desired outcome and its intended consequences.

(b) **Do.** Execute the implementation plan once all affected groups have accepted the proposal and understand their role in ensuring its success.

(c) **Check.** Apply sufficient quality control "stage" checks throughout the implementation phase to ensure any unintended deviations in the execution are identified and addressed without delay; and

(d) **Act.** Analyse the results and take appropriate action as necessary.

18.0 Management Review and Analysis

18.1 Management shall accomplish a comprehensive, systematic, and documented review and analysis of the quality system, training policies, and procedures and shall consider:

(a) The results of quality inspections, audits, and any other indicators;

(b) The overall effectiveness of the management organisation in achieving stated objectives; and

(c) The correction of trends and, where applicable, the prevention of future nonconformities.

18.2 Conclusions and recommendations made as a result of the review and analysis shall be submitted, in writing, to the responsible manager for action. The responsible manager shall be a person who has the authority to resolve relevant issues and take action. The Director of Training shall decide upon the frequency, format, and structure of meetings for internal review and analysis, in coordination with the accountable manager, if different, as the accountable manager has the overall responsibility for the quality system, including the frequency, format, and structure of the internal management review and analysis activities.

19.0 Recording

19.1 Accurate, complete, and readily accessible records documenting the result of the quality assurance audit programme shall be maintained by the ATO. Records are essential data to enable an ATO to analyse and determine the root causes of nonconformity so that areas of non-compliance can be identified and subsequently addressed.

19.2 Records shall be retained at least for the period mandated by national requirements. In the absence of such requirements, a period of 3 years is recommended. The relevant records include:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Responses to findings;

(d) Corrective and preventive action reports;

(e) Follow-up and closure reports; and

(f) Management review and analysis reports.

20.0 Quality Assurance Responsibility for Satellite ATOs

20.1 An ATO may decide to subcontract certain activities to external organisations subject to the approval of the Authority.

20.2 The ultimate responsibility for the training provided by the satellite ATO always remains with the ATO. A written agreement shall exist between the ATO and the satellite ATO clearly defining the training services to be provided and the level of quality to be assured. The satellite ATO's activities relevant to the agreement shall be included in the ATO's quality assurance audit programme.

20.3 The ATO shall ensure that the satellite ATO has the necessary authorisation/approval when required and that it commands the resources and competence to undertake the task.

21.0 Quality Assurance Training

21.1 Appropriate and thorough training is essential to optimise quality in every organisation. In order to achieve the appropriate outcomes of such training, the ATO shall ensure that all personnel understand the objectives as laid out in the Quality Manual to a level relevant to their duties, including:

(a) The concept of quality assurance and associated systems;

(b) Quality management;

(c) The Quality Manual;

(d) Inspections and audit techniques; and

(e) Reporting and recording.

21.2 Time and resources shall be allocated to provide appropriate levels of quality assurance training to every employee.

21.3 Quality assurance courses are available from the various national or international standards institutions, and an ATO may consider whether to offer such courses to those likely to be involved in the management or supervision of quality assurance processes. ATOs with sufficient appropriately qualified personnel may consider the possibility of providing in-house training.

IS 3.3.3 PERSONNEL REQUIRED FOR FLIGHT CREW TRAINING

(a) The Director of Training shall have overall responsibility for ensuring satisfactory integration of flight crew training, flight simulation training, and theoretical knowledge instruction and for supervising the progress of individual students. The Director of Training shall have extensive experience in training as an FI for pilot licences and shall possess a sound managerial capability.

(b) The CFI shall be responsible for the supervision of FIs, synthetic FIs, and RPAS instructors and for the standardisation of all flight instruction and synthetic flight instruction. The CFI shall:

(1) Hold the highest pilot licence related to the flight crew training courses conducted;

(2) Hold the rating(s) related to the flight crew training courses conducted;

(3) Hold an FI rating for at least one of the types of aircraft or RPAS used in the course;

(4) Have completed 1 000 hours of PIC flight time, of which a minimum of 500 hours shall be on flight crew instructional duties related to the flight crew courses conducted, of which 200 hours may be instrument ground time; and

(5) For RPAS, have completed the number of hours specified by the Authority for PIC flight time, of which a specified number of hours shall be on flight crew instructional duties related to the flight crew course conducted, of which a specified number of hours may be instrument ground time, as applicable.

(c) An FI shall hold:

(1) A pilot licence and rating(s), in accordance with Part 2 of these regulations, related to the flight crew training and RPAS courses that the instructor is approved to conduct; and

(2) An instructor rating or authorisation, in accordance with Part 2 of these regulations, relevant to the part of the course being conducted (e.g., FI, flight IR instructor, instructor for additional class or type rating(s), instructor for flight simulation training, instructor for RPAS), as appropriate.

(d) An instructor for flight simulation training or RPAS shall hold the authorisation, in accordance with Part 2 of these regulations, related to the training courses that the instructor is appointed to conduct.

(e) An instructor for FE licence and rating training shall hold:

(1) The licence and rating(s), in accordance with Part 2 of these regulations, related to the FE licence and/or rating training courses that the instructor is appointed to conduct; and

(2) An IR, in accordance with Part 2 of these regulations, relevant to the part of the course being conducted.

(f) The CGI shall:

(1) Be responsible for the supervision of all GIs and for the standardisation of all theoretical knowledge instruction; and

(2) Have a practical background in aviation and the appropriate GI licence, in accordance with Part 2 of these regulations.

(g) A GI shall be responsible for conducting ground training in subject areas required for a licence or rating. A GI may either have a licence or be approved by the Authority in accordance with Part 2 of these regulations, depending upon the subject matter to be taught.

(h) A GI who is approved by the Authority but is not licensed, and who teaches knowledge subjects for licences and ratings, shall have appropriate experience in aviation and shall, before appointment, provide proof of competency by giving a lecture based on material developed by that GI for the subjects to be taught.

IS 3.3.5.1 ATO PROCEDURES MANUAL – FLIGHT CREW TRAINING

(a) An ATO conducting flight crew training shall include the following in its ATO Procedures Manual or a separate training and procedures manual:

1.0 General

1.1 Preamble relating to the use and applicability of the manual.

1.2 Table of contents.

1.3 Amendment, revision, and distribution of the manual:

(a) Procedures for amendment;

(b) Record of amendments page;

(c) Distribution list; and

(d) List of effective pages.

1.4 Glossary of definitions and significant terms, including a list of abbreviations.

1.5 Description of the structure and layout of the manual, including:

(a) The various parts and sections, as well as their contents and use; and

(b) The numbering system for headings and paragraphs.

1.6 Description of the scope of training authorised under the ATO's training specifications.

1.7 A chart of the ATO's management organisation and the names of the post holders.

1.8 Qualifications, responsibilities, and succession of command of management and key operational personnel including:

(a) Accountable manager;

(b) Director of Training;

(c) Instructional services manager;

(d) Quality manager;

(e) Director of Maintenance, if applicable;

(f) Safety manager, if applicable;

(g) Instructors; and

(h) Examiners, evaluators, and auditors.

1.9 Policies dealing with the:

(a) ATO's objectives, including ethics and values;

(b) Selection of ATO personnel and the maintenance of their qualifications;

(c) Training programme design and development, including the need for programme validation and review, as well as the outsourcing of training programme development to third-party providers;

(d) Evaluation, selection, and maintenance of training material and devices;

(e) Maintenance of the training facilities and equipment;

(f) Development and maintenance of a quality system governance model; and

(g) Development and maintenance of a culture focused on safety in the workplace, including, when applicable, implementing an SMS governance model.

1.10 Description of the facilities and equipment available, including:

(a) General use facilities, including offices, stores and archives, and library or reference areas;

(b) The number and size of classrooms, including installed equipment; and

(c) The type and number of training devices, including their location if other than at the main training site.

2.0 Personnel Training

2.1 Identification of persons or positions responsible for the maintenance of performance standards and for ensuring the competency of personnel.

2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel, as required by 3.2.1.14 of this part.

2.3 Details of the initial and recurrent training programmes for all personnel, as required by 3.2.1.14 of this part.

2.4 Procedures for proficiency checks and upgrade training.

3.0 Client Training Programmes

Client training programmes cover each individual training programme conducted by the ATO for its customers. The training programmes consist of a training plan, a practical training syllabus, and a theoretical knowledge syllabus, if applicable, as described in paragraphs 3.1, 3.2, and 3.3 of this IS.

3.1 Training plan.

(a) The aim of the course in the form of a statement specifying what the student is expected to be able to do as a result of the training; the level of performance; and the training constraints to be observed.

(b) Pre-entry requirements, including:

(1) Minimum age;

(2) Education or qualification requirements;

(3) Medical requirements; and

(4) Linguistic requirements.

(c) Credits for previous knowledge, experience, or other qualifications, proof of which may be obtained from the Authority before the training commences.

(d) Training curricula, including:

(1) Theoretical training (knowledge);

(2) Practical training (skills);

(3) Training in the domain of human factors (attitudes);

Note: Guidance material to design training programmes on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(4) Assessment and examinations; and

(5) Monitoring of the training process, including the assessment and examination activities.

(e) Training policies in terms of:

(1) Restrictions regarding the duration of training periods for students and instructors; and

(2) If applicable, minimum rest periods.

(f) Policy for the conduct of student evaluation, including:

(1) Procedures for authorisation for tests;

(2) Procedures for remediation training before retest and for rewriting knowledge tests;

(3) Test reports and records;

(4) Procedures for skill progress checks and skill tests;

(5) Procedures for knowledge progress tests and knowledge tests, including procedures for knowledge test preparation, types of questions and assessments, and standards required for a pass; and

(6) Procedures for question analysis and review and for issuing replacement exams (applicable to knowledge tests).

(g) Policy regarding training effectiveness, including:

(1) Liaison procedures between training departments;

(2) Requirements for reporting and documentation;

(3) Internal feedback system for detecting training deficiencies;

(4) Interim performance or competency standards at various stages of training to ensure standardisation;

(5) Individual student responsibilities;

(6) Procedures for correcting unsatisfactory progress;

(7) Procedures for changing instructors;

(8) Maximum number of instructor changes per student; and

(9) Procedures for suspending a student from training.

3.2 Syllabi for non-competency-based training programmes.

(a) Practical training syllabus, including:

(1) A statement of how the course will be divided into phases, indicating how the phases will be arranged to ensure completion in the most suitable learning sequence and that exercises are repeated at the proper frequency;

(2) The syllabus hours for each phase and for groups of lessons within each phase and when progress tests are to be conducted;

(3) A statement of the standard of proficiency required before progressing from one phase of training to the next, including minimum experience requirements and satisfactory exercise completion before undertaking the next phase;

(4) Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications;

(5) Instruction for the conduct and documentation of all progress checks; and

(6) Instruction, where applicable, given to all examining personnel regarding the conduct of examinations and tests.

(b) Theoretical knowledge syllabus.

The syllabus for theoretical knowledge instruction shall be structured generally as outlined in paragraph 3.2(a) of this IS but with a training specification and objective for each subject.

3.3 Syllabus for competency-based training programmes.

(a) Training programmes focused on achieving desired standards of performance for specific jobs or tasks shall be competency based.

(b) Competency-based training programmes are based upon a job and task analysis to define the knowledge, skills, and attitudes required to perform a job or a task. Such programmes use an integrated approach in which the training of the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the underlying knowledge, skills, and attitudes related to the task in a more effective way.

(c) As a result, the syllabus is structured as a single document that is subdivided into modules containing a training objective and the same information outlined in paragraph 3.2(a) of this IS, but it is applied to both the theoretical knowledge and practical training delivered by the module.

4.0 Tests and Checks Conducted by the ATO for the Issuance of a Licence or Rating

When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with the ATO Procedures Manual, the manual shall include:

4.1 The name(s) of the personnel with testing authority and the scope of the authority;

4.2 The role and duties of the authorised personnel;

4.3 If the ATO has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and

4.4 The applicable requirements established by the Authority, such as:

(a) The procedures to be followed in the conduct of checks and tests; and

(b) The methods for completion and retention of testing records, as required by the Authority.

5.0 Records

Policy and procedures regarding:

5.1 Attendance records;

5.2 Student training records;

5.3 Personnel training and qualification records;

5.4 Persons responsible for checking records and student personal logs;

5.5 The nature and frequency of record checks;

5.6 Standardisation of record entries;

5.7 Personal log entries; and

5.8 Security of records and documents.

6.0 Safety Management System (if applicable)

The requirement to adopt SMS practices is intended to be restricted to only those training entities whose activities directly impact the safe operation of aircraft. Should that requirement apply to the ATO, the ATO Procedures Manual, as stated in paragraph 1.9 of this IS, shall address the ATO's SMS with reference to a separate manual or shall include the SMS practices within the ATO Procedures Manual.

7.0 Quality Assurance

Provide a brief description of the quality assurance practices, as required by IS 3.2.1.17, by reference to a separate Quality Manual, or include the quality assurance practices within the ATO Procedures Manual (refer to paragraph 9.0 of IS 3.2.1.17).

8.0 Appendices (as required)

8.1 Sample progress test forms;

8.2 Sample logs, test reports, and records; and

8.3 A copy of the ATO's approval document.

9.0 Flight Crew Training – General

9.1 Qualifications, responsibilities, and succession of command of management and key operational personnel, in addition to those listed in paragraph 1.8 of this IS, including the:

(a) CFI; and

(b) CGI.

9.2 Policies and procedures, in addition to those listed in paragraph 1.9 of this IS, dealing with:

(a) Approval of flights;

(b) Responsibilities of the PIC;

(c) Flight planning procedures – general;

(d) Carriage of passengers;

(e) Operational control system;

(f) Reporting of safety hazards, incidents, and accidents;

(g) Duty periods and flight time limitations for flight crew members and students; and

(h) Minimum rest periods for flight crew members and students.

9.3 Description of the facilities and equipment available, in addition to those listed in paragraph 1.10 of this IS, including:

(a) FSTDs, aircraft training, and RPAS training;

(b) Maintenance facilities and ramp parking areas for training aircraft and RPAS training;

(c) Computer-based classroom(s); and

(d) Dispatch control and briefing areas.

10.0 Aircraft Operating Information

10.1 Certification and operating limitations.

10.2 Aircraft handling, including:

(a) Performance limitations;

(b) Use of checklists;

(c) Standard operating procedures; and

(d) Aircraft maintenance procedures.

10.3 Instructions for aircraft loading and securing of load.

10.4 Fuelling procedures.

10.5 Emergency procedures.

11.0 Routes

11.1 Performance criteria (e.g., take-off, en route, landing).

11.2 Flight planning procedures, including:

(a) Fuel and oil requirements;

(b) Minimum safe altitudes;

(c) Planning for contingencies (e.g., emergency or diversion scenarios); and

(d) Navigation equipment.

11.3 Weather minima for all instructional training flights during day, night, visual flight rules, and IFR operations.

11.4 Weather minima for all student training flights at various stages of training.

11.5 Training routes and practice areas.

12.0 Flight Training Plan

12.1 Training curricula, in addition to curricula listed in paragraph 3.1(d) of this IS, including, as applicable:

(a) Flight crew curriculum (single engine);

(b) Flight crew curriculum (multi-engine);

(c) Theoretical knowledge curriculum;

(d) Flight simulation training curriculum; and

(e) Flight crew curriculum (RPAS).

12.2 The general arrangements of daily and weekly programmes for flight crew training, ground training, flight simulation training, and RPAS training.

12.3 Training policies, in addition to paragraph 3.1(e) of this IS, in terms of:

(a) Weather constraints;

(b) Maximum student training times for flight, theoretical knowledge, and flight simulation training, per day/week/month;

(c) Restrictions with respect to training periods for students;

(d) Duration of training flights at various stages;

(e)	Maximum individual student flight hours in any day or night period;
(f)	Maximum number of individual student training flights in any day or night period; and
(g)	Minimum rest periods between training periods.

IS 3.4.5.1 ATO PROCEDURES MANUAL – MAINTENANCE TRAINING

(a) An ATO conducting maintenance training shall include the following in its ATO Procedures Manual:

1.0	**General**	
1.1	Preamble relating to the use and applicability of the manual.	
1.2	Table of contents.	
1.3	Amendment, revision, and distribution of the manual:	
	(a)	Procedures for amendment;
	(b)	Record of amendments page;
	(c)	Distribution list; and
	(d)	List of effective pages.
1.4	Glossary of definitions and significant terms, including a list of abbreviations.	
1.5	Description of the structure and layout of the manual, including:	
	(a)	The various parts and sections, as well as their contents and use; and
	(b)	The numbering system for headings and paragraphs.
1.6	Description of the scope of training authorised under the ATO's training specifications.	
1.7	A chart of the ATO's management organisation and the names of the post holders.	
1.8	Qualifications, responsibilities, and succession of command of management and key operational personnel, including the:	
	(a)	Accountable manager;
	(b)	Director of Training;
	(c)	Instructional services manager;
	(d)	Quality manager;
	(e)	Director of Maintenance, if applicable;
	(f)	Safety manager, if applicable;
	(g)	Instructors; and
	(h)	Examiners, evaluators, and auditors.
1.9	Policies dealing with the:	
	(a)	ATO's objectives, including ethics and values;
	(b)	Selection of ATO personnel and the maintenance of their qualifications;
	(c)	Training programme design and development, including the need for programme validation and review, as well as the outsourcing of training programme development to third-party providers;
	(d)	Evaluation, selection, and maintenance of training material and devices;
	(e)	Maintenance of the training facilities and equipment;
	(f)	Development and maintenance of a quality system governance model; and

(g) Development and maintenance of a culture focused on safety in the workplace, including, when applicable, implementing an SMS governance model.

1.10 Description of the facilities and equipment available, including:

(a) General use facilities, including offices, stores and archives, and library or reference areas;

(b) The number and size of classrooms, including installed equipment; and

(c) The type and number of training devices, including their location if other than at the main training site.

2.0 Personnel Training

2.1 Identification of persons or positions responsible for the maintenance of performance standards and for ensuring the competency of personnel.

2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel as required by 3.2.1.14 of this part.

2.3 Details of the initial and recurrent training programmes for all personnel as required by 3.2.1.14 of this part.

2.4 Procedures for proficiency checks and upgrade training.

3.0 Client Training Programmes

3.1 Client training programmes cover each individual training programme conducted by the ATO for its customers. The training programmes consist of a training plan, a practical training syllabus, and a theoretical knowledge syllabus, if applicable, as described in paragraphs 3.2, 3.3, and 3.4 of this IS.

3.2 Training plan.

(a) The aim of the course in the form of a statement specifying what the student is expected to be able to do as a result of the training, the level of performance, and the training constraints to be observed.

(b) Pre-entry requirements, including:

(1) Minimum age;

(2) Education or qualification requirements;

(3) Medical requirements; and

(4) Linguistic requirements.

(c) Credits for previous knowledge, experience, or other qualifications, proof of which shall be obtained from the Authority before the training commences.

(d) Training curricula, including:

(1) Theoretical training (knowledge);

(2) Practical training (skills);

(3) Training in the domain of human factors (attitudes);

Note: Guidance material to design training programmes on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(4) Assessment and examinations; and

(5) Monitoring of the training process, including the assessment and examination activities.

(e) Training policies in terms of:

(1) Restrictions regarding the duration of training periods for students and instructors; and

(2) If applicable, minimum rest periods.

(f) Policy for the conduct of student evaluation, including:

(1) Procedures for authorisation for tests;

(2) Procedures for remediation training before retest and for rewriting knowledge tests;

(3) Test reports and records;

(4) Procedures for skill progress checks and skill tests;

(5) Procedures for knowledge progress tests and knowledge tests, including procedures for knowledge test preparation, types of questions and assessments, and standards required for a pass; and

(6) Procedures for question analysis and review and for issuing replacement exams (applicable to knowledge tests).

(g) Policy regarding training effectiveness, including:

(1) Liaison procedures between training departments;

(2) Requirements for reporting and documentation;

(3) Internal feedback system for detecting training deficiencies;

(4) Interim performance or competency standards at various stages of training to ensure standardisation;

(5) Individual student responsibilities;

(6) Procedures for correcting unsatisfactory progress;

(7) Procedures for changing instructors;

(8) Maximum number of instructor changes per student; and

(9) Procedures for suspending a student from training.

3.3 Syllabi for non-competency-based training programmes.

(a) Practical training syllabus.

(1) A statement of how the course will be divided into phases, indicating how the phases will be arranged to ensure completion in the most suitable learning sequence and that exercises are repeated at the proper frequency.

(2) The syllabus hours for each phase and for groups of lessons within each phase and when progress tests are to be conducted.

(3) A statement of the standard of proficiency required before progressing from one phase of training to the next, including minimum experience requirements and satisfactory exercise completion before undertaking the next phase.

(4) Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications.

(5) Instruction for the conduct and documentation of all progress checks.

(6) Instruction, where applicable, given to all examining personnel regarding the conduct of examinations and tests.

(b) Theoretical knowledge syllabus.

(1) The syllabus for theoretical knowledge instruction shall be structured generally as outlined in paragraph 3.3 of this IS but with a training specification and objective for each subject.

3.4 Syllabus for competency-based training programmes.

(a) Training programmes focused on achieving desired standards of performance for specific jobs or tasks shall be competency based.

(b) Competency-based training programmes are based upon a job and task analysis to define the knowledge, skills, and attitudes required to perform a job or a task. Such programmes use an integrated approach in which the training of the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the underlying knowledge, skills, and attitudes related to the task in a more effective way.

(c) As a result, the syllabus is structured as a single document that is subdivided into modules containing a training objective and the same information outlined in paragraph 3.2 of this IS, but it is applied to both the theoretical knowledge and practical training delivered by the module.

4.0 Tests and Checks Conducted by the ATO for the Issuance of a Licence or Rating

4.1 When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with the ATO Procedures Manual, the manual shall include:

(a) The name(s) of the personnel with testing authority and the scope of the authority;

(b) The role and duties of the authorised personnel;

(c) If the ATO has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and

(d) The applicable requirements established by the Authority, such as:

(1) The procedures to be followed in the conduct of checks and tests; and

(2) The methods for completion and retention of testing records as required by the Authority.

5.0 Records

5.1 Policy and procedures regarding:

(a) Attendance records;

(b) Student training records;

(c) Personnel training and qualification records;

(d) Persons responsible for checking records and student personal logs;

(e) The nature and frequency of record checks;

(f) Standardisation of record entries;

(g) Personal log entries; and

(h) Security of records and documents.

6.0 Safety Management System (if applicable)

The requirement to adopt SMS practices is intended to be restricted to only those training entities whose activities directly impact the safe operation of aircraft. Should that requirement apply to the ATO, the ATO Procedures Manual, as stated in paragraph 1.9 of this IS, shall address the ATO's SMS with reference to a separate manual or shall include the SMS practices within the ATO Procedures Manual.

7.0 Quality Assurance

Provide a brief description of the quality assurance practices by reference to a separate Quality Manual or include the quality assurance practices within the ATO Procedures Manual.

8.0 Appendices (as required)

8.1 Sample logs, test reports, and records; and

8.2 A copy of the ATO's approval document.

IS 3.5.5.1 ATO PROCEDURES MANUAL – AIR TRAFFIC CONTROL TRAINING

(a) An ATO conducting flight crew training shall include the following in its ATO Procedures Manual or a separate training and procedures manual:

1.0 General

1.1 Preamble relating to the use and applicability of the manual.

1.2 Table of contents.

1.3 Amendment, revision, and distribution of the manual:

(a) Procedures for amendment;

(b) Record of amendments page;

(c) Distribution list; and

(d) List of effective pages.

1.4 Glossary of definitions and significant terms, including a list of abbreviations.

1.5 Description of the structure and layout of the manual, including:

(a) The various parts and sections, as well as their contents and use; and

(b) The numbering system for headings and paragraphs.

1.6 Description of the scope of training authorised under the ATO's training specifications.

1.7 A chart of the ATO's management organisation and the names of the post holders.

1.8 Qualifications, responsibilities, and succession of command of management and key operational personnel including:

(a) Accountable manager;

(b) Director of Training;

(c) Instructional services manager;

(d) Quality manager;

(e) Director of Maintenance, if applicable;

(f) Safety manager, if applicable;

(g) Instructors; and

(h) Examiners, evaluators, and auditors.

1.9 Policies dealing with the:

(a) ATO's objectives, including ethics and values;

(b) Selection of ATO personnel and the maintenance of their qualifications;

(c) Training programme design and development, including the need for programme validation and review, as well as the outsourcing of training programme development to third-party providers;

(d) Evaluation, selection, and maintenance of training material and devices;

(e) Maintenance of the training facilities and equipment;

(f) Development and maintenance of a quality system governance model; and

(g) Development and maintenance of a culture focused on safety in the workplace, including, when applicable, implementing an SMS governance model.

1.10 Description of the facilities and equipment available, including:

(a) General use facilities, including offices, stores and archives, and library or reference areas;

(b) The number and size of classrooms, including installed equipment; and

(c) The type and number of training devices, including their location if other than at the main training site.

2.0 Personnel Training

2.1 Identification of persons or positions responsible for the maintenance of performance standards and for ensuring the competency of personnel.

2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel, as required by 3.2.1.14 of this part.

2.3 Details of the initial and recurrent training programmes for all personnel, as required by 3.2.1.14 of this part.

2.4 Procedures for proficiency checks and upgrade training.

3.0 Client Training Programmes

Client training programmes cover each individual training programme conducted by the ATO for its customers. The training programmes consist of a training plan, a practical training syllabus, and a theoretical knowledge syllabus, if applicable, as described in paragraphs 3.1, 3.2, and 3.3 of this IS.

3.1 Training plan.

(a) The aim of the course in the form of a statement specifying what the student is expected to be able to do as a result of the training; the level of performance; and the training constraints to be observed.

(b) Pre-entry requirements, including:

(1) Minimum age;

(2) Education or qualification requirements;

(3) Medical requirements; and

(4) Linguistic requirements.

(c) Credits for previous knowledge, experience, or other qualifications, proof of which may be obtained from the Authority before the training commences.

(d) Training curricula, including:

(5) Theoretical training (knowledge);

(6) Practical training (skills);

(7) Training in the domain of human factors (attitudes);

Note: Guidance material to design training programmes on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(1) Assessment and examinations; and

(2) Monitoring of the training process, including the assessment and examination activities.

(e) Training policies in terms of:

(1) Restrictions regarding the duration of training periods for students and instructors; and

(2) If applicable, minimum rest periods.

(f) Policy for the conduct of student evaluation, including:

(1) Procedures for authorisation for tests;

(2) Procedures for remediation training before retest and for rewriting knowledge tests;

(3) Test reports and records;

(4) Procedures for skill progress checks and skill tests;

(5) Procedures for knowledge progress tests and knowledge tests, including procedures for knowledge test preparation, types of questions and assessments, and standards required for a pass; and

(6) Procedures for question analysis and review and for issuing replacement exams (applicable to knowledge tests).

(g) Policy regarding training effectiveness, including:

(1) Liaison procedures between training departments;

(2) Requirements for reporting and documentation;

(3) Internal feedback system for detecting training deficiencies;

(4) Interim performance or competency standards at various stages of training to ensure standardisation;

(5) Individual student responsibilities;

(6) Procedures for correcting unsatisfactory progress;

(7) Procedures for changing instructors;

(8) Maximum number of instructor changes per student; and

(9) Procedures for suspending a student from training.

3.2 Syllabi for non-competency-based training programmes.

(a) Practical training syllabus, including:

(1) A statement of how the course will be divided into phases, indicating how the phases will be arranged to ensure completion in the most suitable learning sequence and that exercises are repeated at the proper frequency;

(2) The syllabus hours for each phase and for groups of lessons within each phase and when progress tests are to be conducted;

(3) A statement of the standard of proficiency required before progressing from one phase of training to the next, including minimum experience requirements and satisfactory exercise completion before undertaking the next phase;

(4) Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications;

(5) Instruction for the conduct and documentation of all progress checks; and

(6) Instruction, where applicable, given to all examining personnel regarding the conduct of examinations and tests.

(b) Theoretical knowledge syllabus.

The syllabus for theoretical knowledge instruction shall be structured generally as outlined in paragraph 3.2(a) of this IS but with a training specification and objective for each subject.

3.3 Syllabus for competency-based training programmes.

(a) Training programmes focused on achieving desired standards of performance for specific jobs or tasks shall be competency based.

(b) Competency-based training programmes are based upon a job and task analysis to define the knowledge, skills, and attitudes required to perform a job or a task. Such programmes use an integrated approach in which the training of the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the underlying knowledge, skills, and attitudes related to the task in a more effective way.

(c) As a result, the syllabus is structured as a single document that is subdivided into modules containing a training objective and the same information outlined in paragraph 3.2(a) of this IS, but it is applied to both the theoretical knowledge and practical training delivered by the module.

4.0 Tests and Checks Conducted by the ATO for the Issuance of a Licence or Rating (if applicable)

When the Authority has authorised an ATO to conduct the testing required for the issuance of a licence or rating in accordance with the ATO Procedures Manual, the manual shall include:

4.1 The name(s) of the personnel with testing authority and the scope of the authority;

4.2 The role and duties of the authorised personnel;

4.3 If the ATO has been given authority to appoint personnel to conduct the testing required for the issuance of a licence or rating, the minimum requirements for appointment as well as the selection and appointment procedure; and

4.4 The applicable requirements established by the Authority, such as:

(a) The procedures to be followed in the conduct of checks and tests; and

(b) The methods for completion and retention of testing records, as required by the Authority.

5.0 Records

Policy and procedures regarding:

5.1 Attendance records;

5.2 Student training records;

5.3 Personnel training and qualification records;

5.4 Persons responsible for checking records and student personal logs;

5.5 The nature and frequency of record checks;

5.6 Standardisation of record entries;

5.7 Personal log entries; and

5.8 Security of records and documents.

6.0 Safety Management System (if applicable)

The requirement to adopt SMS practices is intended to be restricted to only those training entities whose activities directly impact the safe operation of aircraft. Should that requirement apply to the ATO, the ATO Procedures Manual, as stated in paragraph 1.9 of this IS, shall address the ATO's SMS with reference to a separate manual or shall include the SMS practices within the ATO Procedures Manual.

7.0 Quality Assurance and Control Policies and Procedures

Provide a brief description of the quality assurance- and quality control practices, as required by IS 3.2.1.17, by reference to a separate Quality Manual, or include the quality assurance practices within the ATO Procedures Manual (refer to paragraph 9.0 of IS 3.2.1.17).

8.0 Appendices (as required)

8.1 Sample progress test forms;

8.2 Sample logs, test reports, and records; and

8.3 A copy of the ATO's approval document.

9.0 Air Traffic Controller Training – General

9.1 Qualifications, responsibilities, and succession of command of management and key operational personnel, in addition to those listed in paragraph 1.8 of this IS.

9.2 Policies and procedures, in addition to those listed in paragraph 1.9 of this IS.

9.3 Description of the facilities and equipment available, in addition to those listed in paragraph 1.10 of this IS, including:

(a) Computer-based classroom(s);

(b) Use of Tower Simulator;

(c) Use of Area- and Approach Control Simulator; and

(d) Briefing areas.

10.0 Aerodrome and Approach Procedural Control Course

10.1 General and Overview.

10.2 Basic Module Overview.

10.3 Aerodrome Control Rating and Approach Control Procedural Module Overview.

10.4 Simulation Training for Aerodrome and Procedural Control Course.

10.5 OJT Training.

11.0 Approach Control Surveillance Rating Course

11.1 General and Overview.

11.2 Approach Surveillance Control Rating Module Overview.

11.3 Simulation Training for Approach Surveillance Control Rating.

11.4 OJT Training.

12.0 Area Control Procedural and Surveillance Rating Course

12.1 General and Overview.

12.2 Area Control Procedural and Surveillance Rating Module Overview.

12.3 Problem Cue and Flight Data Display (FDD) Workstation Certification Training.

12.4 Simulation Training for Area Control Procedural Rating.

12.5 Simulation Training for Area Control Surveillance Rating.

12.6 Area Control OJT Training.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 4 — AIRCRAFT REGISTRATION AND MARKING

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Part 4 — Aircraft Registration and Marking

4.1 GENERAL

Note: This part places the responsibility for aircraft registration on the aircraft owner, as contained in the Civil Aviation Safety Act, as amended. The aircraft owner, or the operator if different from the owner, is responsible for proper marking of the aircraft prior to operation.

4.1.1.1 APPLICABILITY

(a) Part 4 prescribes the requirements for registration and marking of civil aircraft under the provisions of article 4, first paragraph of the Luchtvaartlandsverordening[1] (the Civil Aviation Act), article 5, second paragraph and article 8, first paragraph of the Landsbesluit Toezicht Luchtvaart[2] (Government Decree on Civil Aviation Safety Oversight).

(b) This part does not apply to meteorological pilot balloons or to unmanned free balloons.

4.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

4.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in Part 4:

(1) **ICAO –** International Civil Aviation Organization

(2) **IS –** Implementing Standards

(3) **RPA -** Remotely piloted aircraft.

4.2 REGISTRATION REQUIREMENTS

4.2.1.1 GENERAL

(a) No person may operate a civil aircraft that is eligible for registration under the laws of Curaçao unless that aircraft has been registered by its owner or operator under the provisions of the laws of Curaçao and the Authority has issued a Certificate of Registration for that aircraft which shall be carried aboard that aircraft for all operations.

(b) The Certificate of Registration shall be in the English language.

(c) Until 25 November 2026, the Director of the Curacao Civil Aviation Authority will issue the certificate of registration in the form as prescribed in IS 4.2.1.1(a)

(d) As of 26 November 2026, the Director of the Curaçao Civil Aviation Authority will issue the certificate of registration in the form as prescribed in IS 4.2.1.1(b)

Note: 1. Article 29 of the Chicago Convention requires that the certificate of aircraft registration be carried on board every aircraft engaged in international air navigation.

2. The form and size is at the discretion of the Director of the Curacao Civil Aviation Authority.

[1] P.B. 2019, no. 4 GT.
[2] P.B. 2003, no. 56, as amended.

4.2.1.2 REGISTRATION ELIGIBILITY

(a) An aircraft is eligible for registration if it is:

(1) Owned by:

(i) A citizen of Curaçao;

(ii) An individual citizen of another State who is lawfully admitted for permanent residence in Curaçao;

(iii) A corporation lawfully organized and doing business under the laws of Curaçao and the aircraft is based and primarily used in Curaçao; or

(iv) A government entity of Curaçao or a political subdivision thereof.

(2) Not registered under the laws of any other State.

4.2.1.3 APPLICATION

(a) A person who wishes to register an aircraft in Curaçao shall submit an application for aircraft registration to the Authority on a form and in a manner acceptable to the Authority. Each application shall:

(1) Certify as to compliance with 4.2.1.1 of this part;

i) If the applicant is a natural person as mentioned in article 3 paragraph 1 under a) of the Landsbesluit Toezicht Luchtvaart (Government Decree on Civil Aviation Safety Oversight: a recent (less than 6 months) certified copy of an entry in the Registry of Population shall be submitted;

ii) If the aircraft is owned by two or more natural persons as mentioned in article 3 paragraph 1 under a) of the Government Decree on Civil Aviation Safety Oversight, the following information shall be submitted:

A) Information as mentioned in 4.2.1.3 (a)(1)(i);

B) A signed statement of the owners declaring who will be appointed as the contact person.

iii) If the applicant is a legal person as mentioned in article 3 paragraph 1 under b) of the Government Decree on Civil Aviation Safety Oversight, the following information shall be submitted:

A) A recent (less than 6 months) certified copy of an entry in the commercial register of the Chamber of Commerce;

B) A certified copy of the articles of incorporation of the company.

iv) If the applicant is the holder of an aircraft, as indicated in article 3 of paragraph 2 of the Government Decree on Civil Aviation Safety Oversight, of which the owner is a foreigner or a foreign legal person, the following information shall be submitted:

A) A copy of the agreement between the owner and the holder;

B) A signed statement between the owner and the holder, declaring that the holder, pursuant to the Government Decree on Civil Aviation Safety Oversight, is accepting all obligations of the owner;

C) The holder (natural person) shall submit all information as mentioned under paragraphs 4.2.1.3 (a)(1)(ii) of this subpart;

D) The owner (foreign natural person) shall submit the information under paragraph 4.2.1.3 (a)(1)(i) as mentioned in the Register of Population of his/her place of residence, the information under paragraph 4.2.1.3.(a)(1)(ii) of this subpart and a proof of good conduct;

E) The holder (legal person) shall submit all the information as mentioned under paragraph 4.2.1.3 (a)(1)(iii);

F) The owner (foreign legal person) shall submit all the information mentioned under paragraph 4.2.1.3(a)(1)(iii) under 5) as given by the Chamber of Commerce, (or equivalent entity) of his/her place of residence, the information mentioned in paragraph 4.2.1.3(a)(1)(iii) under 6) of this subpart and a proof of good conduct/good standing of the shareholders mentioned in the stockholders register of the foreign legal person;

G) A written request, stating reasons to the Authority to admit registration.

v) An application for transference of an aircraft in the nationality register of Curaçao, shall be accompanied by a signed statement by the previous owner, declaring that the ownership of the aircraft has been transferred to applicant, mentioning the name, the residence and nationality of the applicant.

(vi) With regard to the information concerning the applicant/holder of the aircraft that shall be submitted along with the application for the transfer of registration, the provisions under paragraphs 4.2.1.3(a)(1) up to and including 4.2.1.3(a)(7) of this subpart are applicable.

(2) Show evidence identifying ownership;

(3) Be signed in ink;

(4) Be submitted with evidence that all customs requirements have been met and fulfilled;

(5) Comply with the applicable registration fee of NAFL 900;

(6) Be submitted with an excerpt of Chamber of Commerce, if applicable; and

(7) Be submitted with a proof of good conduct/good standing, if applicable.

(b) Upon an applicant meeting all requirements for registration, a certificate of registration will be issued by the Authority.

Note: If for this evaluation the Government employee in question must perform his duties in a foreign country, the travel and accommodation expenses for said person will be on applicants account. In this case the travel and accommodation allowances established by the Government will be used.

4.2.1.4 AIRCRAFT REGISTRY

(a) As required by the Curaçao regulations, the Authority shall maintain an aircraft registry showing for each aircraft registered by Curaçao, the information recorded on the Certificate of Registration and any other information required by the Authority.

(b) Upon request, Curaçao will provide information to another Contracting State or to ICAO as to aircraft registration and/or ownership of any particular aircraft registered in Curaçao.

(c) The certificate of deregistration will be issued by the Director of the Curacao Civil Aviation Authority in accordance with IS 4.4.1.4(a) and will be of a size determined by the Director of the Curacao Civil Aviation Authority.

4.2.1.5 CLASSIFICATION OF AIRCRAFT

(a) Aircraft shall be classified in accordance with the Table in IS 4.2.1.5.

(b) An aircraft that is intended to be operated with no pilot on board shall be further classified as unmanned.

(c) Unmanned aircraft shall include unmanned free balloons and remotely piloted aircraft.

4.2.1.6 DURATION OF CERTIFICATES OF REGISTRATION

(a) The Certificate of Registration has a validity period of maximum three years initiating from the issue date of the certificate. The validity period will be mentioned on the Certificate of Registration.

(1) The validity period of the Certificate of Registration will be renewed for the benefit of the owner/ holder who has submitted such a request, and paid the amount due under 4.2.1.3 (a)(1)(vi)(5)

(2) A request for renewal of the validity period must be filed at least 30 days before the expiration date, the following information shall be submitted;

(i) Certificate of Insurance.

(ii) Proof that ownership remained unchanged.

4.3 NATIONALITY AND REGISTRATION MARKS

4.3.1.1 APPLICABILITY

(a) This Subpart prescribes the requirements for the identification and marking of civil aircraft registered in Curaçao.

4.3.1.2 GENERAL

(a) No person may operate a civil aircraft registered in Curaçao unless the aircraft displays nationality and registration marks in accordance with the requirements of this section. The nationality mark and registration mark shall consist of a group of characters. The letter or letters used to identify the aircraft nationality of Curaçao shall conform to the requirements outlined in Annex 7 to the Convention on International Civil Aviation. The nationality mark consists of the letters ”PJ” and shall be followed by a series of numbers or letters assigned by the Authority. When the first character of the registration mark is a letter, it shall be preceded by a hyphen.

(b) Unless otherwise authorized by the Authority, no person may place on any aircraft a design, mark, or symbol that modifies or confuses the nationality and registration marks. Marks shall not be used which might be confused with the International Five Letter Code of Signals, Part II, the three-letter combinations beginning with Q used in the Q Code, and with the distress signal SOS, or other similar urgent signals, for example XXX, PAN and TTT.

Note.--- For reference to these codes, see the currently effective International Telecommunication Regulations.

(c) Permanent marking of aircraft nationality and registration shall:

(1) Be painted on the aircraft or affixed by other means insuring a similar degree of permanence;

(2) Have no ornamentation;

(3) Contrast in colour with the background;

(4) Be legible, and

(5) Be kept clean and visible at all times.

4.3.1.3 DISPLAY OF MARKS: GENERAL

(a) No person shall operate an aircraft in Curaçao unless that aircraft displays on that aircraft marks consisting of the Roman capital letters “PJ” denoting the nationality of the Curaçao Registry, followed by the registration mark of the aircraft in Arabic numerals, Roman capital letters, or a combination thereof.

4.3.1.4 SIZE OF MARKS

(a) No person shall operate an aircraft unless that aircraft displays marks meeting the size requirements of this section.

(b) Height. The character marks shall be of equal height and on:

(1) Heavier -than -air aircraft shall be at least;

(i) 50 centimeters high if on the wings; and

(ii) 30 centimeters high if on the fuselage (or equivalent structure) and vertical tail surfaces; or

(iii) Identified readily if the aircraft processes no wings and fuselage.

(2) Lighter-than-air aircraft shall be at least 50 centimeters high.

(3) The character marks of other lighter-than-air aircraft that is not of sufficient size to accommodate marks of at least 50 centimeters high shall be determined by the Authority, taking into account the size of the payload to which the identification plate is affixed.

(c) Width. Characters and the length of hyphens shall be two-thirds as wide as they are high, except the number "1" and the letter “I”.

(d) Thickness. Characters and hyphens shall be formed by solid lines one-sixth as thick as the character is high.

(e) Spacing. The space between each character may not be less than one-fourth of a character width. A hyphen shall be regarded as a character for this purpose.

(f) Uniformity. The marks required by this Part for fixed-wing aircraft must have the same height, width, thickness, and spacing on both sides of the aircraft.

4.3.1.5 LOCATION OF MARKS ON HEAVIER-THAN-AIR AIRCRAFT

(a) No person shall operate a fixed-wing aircraft unless it displays the marks once on the lower surface of the wing structure as follows:

(1) The marks shall be located on the left half of the lower surface of the wing structure unless they extend across the whole of the lower surface of the wing structure.

(2) So far as is possible, the marks shall be located equidistant from the leading and trailing edges of the wings.

(3) The tops of the letters and numbers shall be toward the leading edge of the wing.

(b) On a heavier than air aircraft with a fuselage (or equivalent structure) and/or a vertical tail surface, the marks shall appear on either the vertical tail surfaces or the sides of the fuselage as follows:

(1) If displayed on the vertical tail surfaces, horizontally on both surfaces of a single vertical tail or on the outer surfaces of a multi-vertical tail.

(2) If displayed on the fuselage surfaces, horizontally on both sides of the fuselage between the wings and the tail surface.

(3) If engine pods or other appurtenances are located in the area described in paragraph 4.3.1.5(b)(2) of this subsection and are an integral part of the aircraft, the marks may appear on those pods or appurtenances.

4.3.1.6 LOCATION OF MARKS ON LIGHTER-THAN-AIR AIRCRAFT

(a) Airships. No person shall operate an airship unless it displays marks on:

(1) The hull, located lengthwise on each side of the hull and on its upper surface on the line of symmetry; or

(2) The horizontal and vertical stabilizers surfaces:

(i) For the horizontal stabilizer, located on the right half of the upper surface and on the left half of the lower surface, with the tops of the letters and numbers toward the leading edge; and

(ii) For the vertical stabilizer, located on each side of the bottom half stabilizer, with the letters and numbers placed horizontally.

(b) Lighter-than-air aircraft. No person shall operate any lighter-than-air aircraft unless it displays marks visible both from the sides and from the ground.

4.3.1.7 SPECIAL CASES FOR SIZE AND LOCATION OF MARKS

(a) If either one of the surfaces authorised for displaying required marks is large enough for display of marks meeting the size requirements of this section and the other is not, the full-size marks shall be placed on the larger surface.

(b) If neither surface is large enough for full-size marks, the Authority may approve marks as large as practicable for display on the larger of the two surfaces.

(c) If, because of the aircraft configuration, it is not possible to mark the aircraft in accordance with this Part, the owner may apply to the Authority for a different procedure, taking account of the need for the aircraft to be identified readily.

4.3.1.8 SALE OF AIRCRAFT: REMOVAL OF MARKS

(a) When an aircraft that is registered in Curaçao is sold, the holder of the certificate of registration shall remove, before its delivery to the purchaser, all nationality and registration marks of Curaçao, unless the purchaser is a citizen or other legal entity as prescribed in 4.2.1.2(a)(1) of this part.

4.3.1.9 IDENTIFICATION PLATE REQUIRED

(a) No person shall operate an aircraft registered under the laws of Curaçao unless an identification plate is affixed to the aircraft:

(1) Containing the aircraft type, model, serial number, marks of nationality and registration mark.

(2) Made of fireproof metal or other fireproof material of suitable physical properties.

(3) Secured to the aircraft:

(i) in a prominent position near the main entrance, or,

(ii) in the case of a remotely piloted aircraft, secured in a prominent position near the main entrance or compartment or affixed conspicuously to the exterior of the aircraft if there is no main entrance or compartment.

Note: The registration mark (number) on the identification plate shall be changed each time the aircraft registration changes.

4.4 AIRCRAFT DEREGISTRATION

4.4.1.1 APPLICABILITY

(a) This Subpart prescribes the requirements for the deregistration of civil aircraft registered in Curaçao.

4.4.1.2 GENERAL

(a) No person may register or cause to be registered a civil aircraft that is registered under the laws of Curaçao, in any other State unless that aircraft has been deregistered by its owner or operator and the Authority has issued a certificate of deregistration for that aircraft.

4.4.1.3 CERTIFICATE OF DEREGISTRATION

(a) The certificate of deregistration shall be in English.

(b) The Director of the Curacao Civil Aviation Authority will issue the certificate of deregistration in the form as prescribed in IS 4.4.1.3(a) and of a size determined by the Director.

(c) If a Contracting State or common mark registering authority issues a certificate of deregistration, it shall issue the certificate in accordance with IS 4.4.1.3(a)

4.4.1.4 ISSUANCE OF A CERTIFICATE OF DEREGISTRATION

(a) The authority will issue a certificate of deregistration if:

(1) The registration and nationality mark has been removed by a means that it is not visible.

(2) The identification plate and 24-bit aircraft address has been removed from the aircraft.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 4 — IMPLEMENTING STANDARDS

IS 4.2.1.1 CERTIFICATE OF REGISTRATION

(a) Until 25 November 2026, the certificate of registration issued by the Curaçao Civil Aviation Authority shall be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority** **CERTIFICATE OF REGISTRATION**	**No.:** This certificate shall be carried in the aircraft at all times.

1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial no.

4. Name of owner

(holder)

5. Address of owner

(holder)

6. It is hereby certified that the above described aircraft has been duly entered on the nationality register of Curaçao in accordance with the Convention on International Civil Aviation dated 7 December 1944 and with the Article 3, paragraphs 1 and 2 and the Article 4, paragraph 1 of the Civil Aviation Act of Curaçao and regulations issued thereunder.

Date of first issue

Date of issue

Signature _____

For the Minister of Traffic, Transport and Urban Planning

(Director General Curaçao Civil Aviation Authority)

Date of expiry

This certificate is issued for registration purposes only and is not a certificate of title. The Curaçao Civil Aviation Authority does not determine rights of ownership as between private parties.

CCAA form 001A

(b) As of 26 November 2026, the certificate of registration issued by the Curaçao Civil Aviation Authority shall be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority** **CERTIFICATE OF REGISTRATION**	**No.:** This certificate shall be carried in the aircraft at all times.

1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number.

4a. Issued to

Basis of registration

- ☐ Ownership of aircraft
- ☐ Operator of aircraft
- ☐ other (*explain*):

4b. Address of certificate holder

5. Name and contact information of owner, if different from certificate holder.

6. It is hereby certified that the above described aircraft has been duly entered on the nationality register of Curaçao in accordance with the Convention on International Civil Aviation dated 7 December 1944 and with the Article 3, paragraphs 1 and 2 and the Article 4, paragraph 1 of the Civil Aviation Act of Curaçao and regulations issued thereunder.

Date of issue

Signature _____

For the Minister of Traffic, Transport and Urban Planning

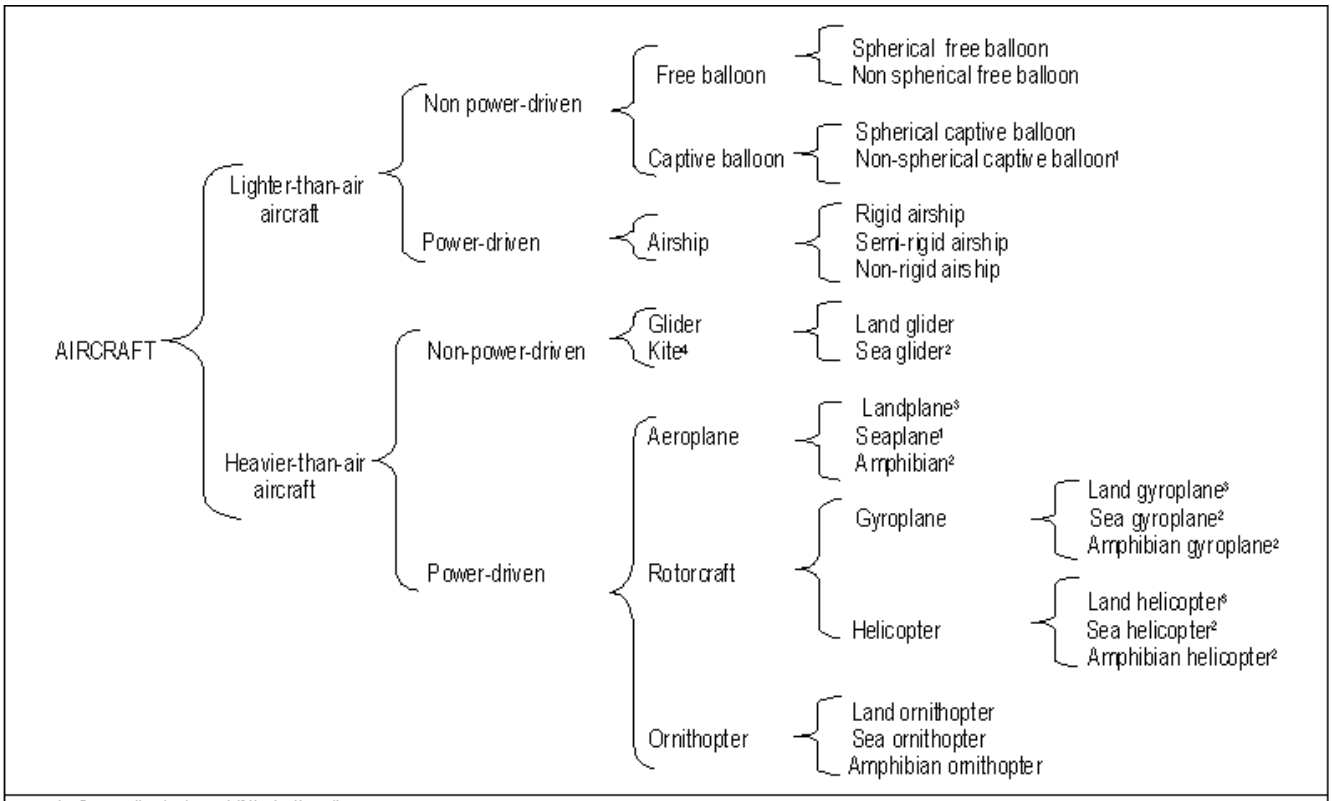
(Director General Curaçao Civil Aviation Authority)

Date of expiry

This certificate is issued for registration purposes only and is not a certificate of title. The Curaçao Civil Aviation Authority does not determine rights of ownership as between private parties.

CCAA form 001A

IS 4.2.1.5 CLASSIFICATION OF AIRCRAFT



1. Generally designed "kite-balloon".
2. "Float" or "boat" may be added as appropriate.
3. Includes aircraft equipped with ski-type landing gear (substitute "ski" for "land").
4. For the purpose of completeness only.

IS 4.4.1.3 CERTIFICATE OF DEREGISTRATION

(a) The certificate of deregistration issued by the Director of the Curaçao Civil Aviation Authority shall be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority** **CERTIFICATE OF DEREGISTRATION**	**No.:** This certificate shall be carried in the aircraft at all times.

1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number.

4a. Issued to

Basis of registration

- ☐ Ownership of aircraft
- ☐ Operator of aircraft
- ☐ other

4b. Address of certificate holder

5. Name and contact information of owner, if different from certificate holder.

6. It is hereby certified that the above described aircraft has been duly removed from the Curacao Civil Aviation Registry on……and the Certificate of Registration has been cancelled.

6a. Reason(s) for deregistration, if known:

Date of issue

Signature _____
For the Minister of Traffic, Transport and Urban Planning
(Director General Curaçao Civil Aviation Authority)

CCAA form 001B

CURAÇAO CIVIL AVIATION REGULATIONS

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PART 5 – AIRWORTHINESS

5.1 GENERAL

5.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for:

(1) Certification of aircraft and aeronautical products;

(2) Issuance of certificates of airworthiness;

(3) Continuing airworthiness of aircraft and aeronautical products;

(4) Aircraft maintenance and inspection; and

(5) Continuing airworthiness records.

5.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

(b) Expanded definitions of the following terms are contained in IS 5.1.1.2(B):

(1) Major modifications

(2) Major repairs

(3) Preventive maintenance

5.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AC –** Advisory Circular

(2) **AD –** Airworthiness Directive

(3) **AOC –** air operator certificate

(4) **AMO –** approved maintenance organisation

(5) **AMT –** aviation maintenance technician

(6) **ICAO –** International Civil Aviation Organization

(7) **IS –** Implementing Standards

(8) **RPA –** remotely piloted aircraft

(9) **RPAS –** remotely piloted aircraft system

(10) **RPS –** remote pilot station

(11) **STC –** supplemental type certificate

(12) **TC –** type certificate

(13) **TSO –** technical standard order

5.2 CERTIFICATION OF AIRCRAFT AND AERONAUTICAL PRODUCTS

Note: This part presumes that Curaçao does not presently have the capabilities or demand to issue its own original type *certification and will therefore not be the State of Design or State of Manufacture. Therefore, Curaçao will either issue its own certificate of airworthiness or validate the certificate of airworthiness issued by another State in accordance with this part. In either case, Curaçao is responsible for the continuing airworthiness of aircraft on its registry and for ensuring that non-Curaçao-registered aircraft operated within Curaçao are maintained in accordance* with *the* continuing airworthiness requirements of the State of Registry*. See ICAO Annex 8, Part II: 4.2, for Contracting States' responsibilities with respect to continuing airworthiness.*

5.2.1.1 APPLICABILITY

(a) This part applies to operators of aircraft within Curaçao.

(b) No person may operate an aircraft within Curaçao or apply for registration of an aircraft in Curaçao unless that aircraft and the aeronautical products therein have received type certification from the State of Design and production approval from the State of Manufacture by the appropriate regulatory agencies of those States in accordance with the Standards of ICAO Annex 8.

5.2.1.2 AIRWORTHINESS CODE FOR AIRCRAFT CATEGORIES

(a) An applicant for a Type Certificate for an aircraft, or for the acceptance or validation thereof, shall submit with the application detailed data identifying the airworthiness standards to which describes the design, construction and performance of that aircraft.

(b) The Authority shall accept or validate a Type Certificate, in respect of any aircraft, engine or propeller that is imported into Curacao, subject to such condition or limitations as it shall consider appropriate, provided that;

(c) The Authority of the State of Manufacture has issued a Type Certificate on the basis of the United States Federal Aviation Regulations, European Aviation Safety Agency Certification Specifications or Canadian Civil Aviation Regulations;

(1) Fixed wing type aircraft of the category T and fixed wing aircraft must comply with (CFR) 14 Part 25, CS 25 or CARs 525.

(2) Fixed wing type aircraft of the category N, U and A must comply with the (CFR) 14 Part 23, CS 23 or CARs 523.

(3) Rotary wing type aircraft of the category A and B must comply with the (CFR) 14 Part 29, or CARs 529.

(4) Rotary wing type aircraft of the category N must comply with the (CFR) 14 Part 27, or CARs 527.

(c) Category N aircraft used in transport flights:

Aircraft of category N being used in transport flights, must comply with the requirements in subpart 5.2.1.2.(c)(2).2, 5.2.1.2.(c)(4) and CCAR Part 9.

(e) Other aircraft usages:

(1) Fixed wing aircraft used for banner towing must comply with the requirements in subpart 5.2.1.2.(c)

(2) Aircraft being used for crop dusting must comply with the requirements in subpart 5.2.1.2 (c).

(3) Fixed wing aircraft used for parachute jumping must comply with the requirements in subpart 5.2.1.2.(c) and with the Code of Federal Regulation (CFR) 14 Part 105

(f) The Type Certificate approval basis meets the airworthiness requirements laid down by the Authority.

(g) Without prejudice to paragraph (c), the Authority may at its discretion accept or validate a Type Certificate that is issued by the Airworthiness Authority of the State of manufacture where the Type Certificate approval basis meets the airworthiness requirements laid down by the Authority.

5.2.1.3 ISSUANCE OF A SUPPLEMENTAL TYPE CERTIFICATE

(a) Any person who proposes to modify a product by introducing a major change in type design not great enough to require a new application for a TC shall apply for an STC to the regulatory agency of the State of Design that approved the TC for that product or to the State of Registry of the aircraft, provided that the State of Registry has the technical expertise to evaluate the proposed change in accordance with the type design. The applicant shall apply for the STC in accordance with the procedures prescribed by that State.

(b) The Authority will, upon receiving a request for an STC for an aircraft registered in Curaçao:

(1) Forward the request to the State of Design; or

(2) If applicable, issue an STC using the same regulatory and other guidance as the State of Design and State of Manufacture.

Note 1: Technical expertise needed by the State of Registry in order to approve an STC includes aeronautical engineers with specific expertise in the field to be approved.

Note 2: If the State of Registry is not the State of Design, the State of Registry may elect to forward a request for an STC to the State of Design.

5.3 ISSUANCE OF CERTIFICATES OF AIRWORTHINESS

5.3.1.1 APPLICABILITY

(a) This subpart prescribes procedures required for the issue of certificates of airworthiness and other certifications for aeronautical products registered in Curaçao.

(b) The Authority will issue a certificate of airworthiness for aircraft registered in Curaçao based on satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements (TC).

5.3.1.2 ELIGIBILITY

(a) Any registered owner, or agent of the owner, of Curaçao-registered aircraft may apply for a certificate of airworthiness for that aircraft.

(b) Each applicant for a certificate of airworthiness shall apply on a form and in a manner acceptable to the Authority.

5.3.1.3 AIRCRAFT IDENTIFICATION

(a) Each applicant for a certificate of airworthiness shall show that the aircraft has the proper identification plates.

5.3.1.4 CLASSIFICATIONS OF CERTIFICATES OF AIRWORTHINESS

(a) The Authority will issue a standard certificate of airworthiness for aircraft in the specific category and model designated by the State of Design in the TC. The types of standard certificates of airworthiness include:

(1) Normal

(2) Utility

(3) Acrobatic

(4) Transport

(5) Commuter

(6) Other

(b) The Authority will issue a special certificate of airworthiness for aircraft that do not meet the requirements of the State of Design for a standard certificate of airworthiness. The types of special certificates of airworthiness include:

(1) Primary

(2) Restricted

(3) Limited

(4) Provisional

(5) Experimental

(6) Special flight permits

(7) Other

5.3.1.5 ISSUANCE OF A STANDARD CERTIFICATE OF AIRWORTHINESS

(a) The Authority will issue a standard certificate of airworthiness if:

(1) The applicant presents evidence to the Authority that the aircraft conforms to a type design approved under a TC or an STC and to the applicable ADs of the State of Design;

(2) The aircraft has been inspected in accordance with the performance rules of Subpart 5.6 of this part for inspections and found airworthy within the last 30 calendar days by persons authorised by the Authority to make such determinations;

(3) The Authority finds, after an inspection, that the aircraft conforms to the type design and is in a condition for safe operation;

(4) The applicant comply with the applicable Certificate of Airworthiness fee which. is for a) issuing or renewal of a Certificate of Airworthiness, the amount of ANG 400,= increased with ANG 200,= for each 1000 kilograms or part thereof by which the maximum takeoff weight of the aircraft surpasses 1000 kilograms; b) for reissue: the amount of ANG 200,=.

(5) The application for a Certificate of Airworthiness must be done using an application Form which is available at the Authority. The application will not be dealt with as long as the applicant has not settled the amount due;

(6) The amount due is deposited on the bank account of the Authority providing the necessary references and descriptions;

(7) If the validity of the Certificate of Airworthiness is suspended or revoked or based on the investigation by the Authority of the CCAA and it can be concluded that through fault of the applicant an evaluation of the airworthiness could not be performed, the amount deposited will not be refunded;

(8) The expenses and risks related to the evaluation of the airworthiness of an aircraft are for the account of the applicant, excluding the expenses and risks for the person(s) assigned for this evaluation by the Authority;

(9) As of 26 November 2026, for an RPA, the Authority finds, after an inspection, that the RPAS, as a complete system, conforms to the type design and is in a condition for safe operation.

Note: If for this evaluation the Government employee in question must perform his duties in a foreign country, the travel and accommodation expenses for said person will be on applicants account. In this case the travel and accommodation allowances established by the Government will be used.

(b) When issuing its standard certificate of airworthiness, the Authority may consider the previous certificate of airworthiness issued by another Contracting State as satisfactory evidence, in whole or in part, that the aircraft complies with the applicable requirements of this part.

Note: Some Contracting States facilitate the transfer of aircraft onto the register of another State by the issuance of an export certificate of airworthiness or similarly titled document. While not valid for the purpose of flight, such a document provides confirmation by the exporting State of a recent satisfactory review of the airworthiness status of the aircraft. Guidance on the issue of an export certificate of airworthiness is contained in ICAO Doc 9760, Airworthiness Manual.

(c) Until 25 November 2026, the standard certificate of airworthiness will contain the information as prescribed in IS 5.3.1.5(a).

(d) As of 26 November 2026, the certificate of airworthiness for all aircraft except RPA will contain the information as prescribed in IS 5.3.1.5(a).

(e) As of 26 November 2026, the standard certificate of airworthiness for all RPA will contain the information shown in IS 5.3.1.5(b).

(f) The standard certificate of airworthiness will be issued in English.

5.3.1.6 ISSUANCE OF A SPECIAL CERTIFICATE OF AIRWORTHINESS

(a) The Authority will issue a special certificate of airworthiness to an aircraft that does not qualify for a standard certificate of airworthiness.

(b) When issuing its special certificate of airworthiness, the Authority may consider the previous special certificate of airworthiness issued by another Contracting State as satisfactory evidence, in whole or in part, for the issuance of a special certificate of airworthiness.

(c) Aircraft certificated under a special certificate of airworthiness shall be subject to operating limitations within Curaçao and may not be used for international flights except as specified in paragraph 5.3.1.6(d) of this subsection. The Authority will issue specific operating limitations for each special certificate of airworthiness.

(d) No person may operate an aircraft with a special certificate of airworthiness:

(1) Except in accordance with the applicable regulations and in accordance with terms, conditions, and limitations that may be prescribed by the Authority as part of this certificate; or

(2) Over any foreign country without the permission of that country.

(e) The special certificate of airworthiness will be issued on a form and in a manner as prescribed in IS 5.3.1.6.

5.3.1.7 ISSUANCE OF A SPECIAL FLIGHT PERMIT AS A SPECIAL CERTIFICATE OF AIRWORTHINESS

(a) The Authority will issue a special flight permit, using the certificate as prescribed in IS 5.3.1.6, to an aircraft that is capable of safe flight but is unable to meet applicable airworthiness requirements, for the purpose of:

(1) Flying to a base where maintenance, overhaul, modifications, repairs, or inspections are to be performed or to a point of storage;

(2) Testing after maintenance, overhaul, modifications, repairs, or inspections have been performed;

(3) Delivering or exporting the aircraft;

(4) Evacuating aircraft from areas of impending danger; and

(5) Operating at mass in excess of the aircraft's maximum certificated take-off mass for flight beyond normal range over water or land areas where adequate landing facilities or appropriate fuel is not available. The excess mass is limited to additional fuel, fuel-carrying facilities, and navigation equipment necessary for the flight.

(b) The Authority may issue a special flight permit with continuing authorisation to an aircraft that may not meet applicable airworthiness requirements but is capable of safe flight, for the purpose of flying aircraft to a base where maintenance or modifications are to be performed. The permit issued under this paragraph is an authorisation, including terms, conditions, and limitations for flight, that is set forth in the AOC holder's operations specifications. The permit under this paragraph may be issued to an AOC holder certificated under Part 9 of these regulations.

(c) In the case of a special flight permit, the Authority will require a properly executed approval for return to service in the aircraft's permanent record by a person or organisation, authorised in accordance with this part, stating that the subject aircraft has been inspected and found to be safe for the intended flight.

(d) The air operator shall obtain all required overflight authorisations from countries to be overflown on flights outside Curaçao.

5.3.1.8 DURATION OF A CERTIFICATE OF AIRWORTHINESS

(a) A certificate of airworthiness or special certificate of airworthiness has a validity of one year, unless sooner surrendered, suspended, or revoked or unless a special expiration date is otherwise established by the Authority:

(1) A certificate of airworthiness will be renewed or will remain in effect, subject to the laws of the State of Registry:

(i) As long as the aircraft is maintained in accordance with the continuing airworthiness requirements of the State of Registry;

(ii) Until the aircraft is sold to a person outside Curaçao;

(iii) Until the aircraft is leased for operations, registered in another country, and removed from the registry of Curaçao; or

(iv) Until revoked by the State of Registry.

(2) A special certificate of airworthiness, such as a special flight permit, is valid for the period of time specified in the certificate.

(b) The continuing airworthiness of the aircraft shall be determined by a periodic inspection at appropriate intervals having regard to lapse of time and type of service.

(c) Failure to maintain an aircraft in an airworthy condition, as defined by the appropriate airworthiness requirements of the State of Registry, shall render the aircraft ineligible for operations until it is restored to an airworthy condition.

(d) As of 26 November 2026, for RPA, that which must be restored to an airworthy condition includes the RPS controlling the RPA, the required C2 Link(s), or any other components defined by the appropriate airworthiness requirements.

5.3.1.9 COOPERATION AMONG STATES FOR CONTINUING AIRWORTHINESS INFORMATION, INCLUDING AIRWORTHINESS DIRECTIVES

(a) Upon registration of an aircraft in Curaçao, the Authority will notify the State of Design of the aircraft of the registration in Curaçao and will request that the Authority receive any and all ADs addressing that aircraft, or as of 26 November 2026, an RPA, or aeronautical product and any requirements for the establishment of specific continuing airworthiness maintenance programmes.

(b) Whenever the State of Design considers that a condition in an aircraft, or as of 26 November 2026, an RPA, or aeronautical product is unsafe, as shown by the issuance of an AD by that State, the Authority will make the requirements of such directives apply to Curaçao-registered civil aircraft of the type identified in that AD.

(c) The Authority may identify manufacturers' service bulletins and other sources of data, or develop and prescribe inspections, procedures, and limitations, for mandatory compliance pertaining to affected aircraft in Curaçao.

(d) No person may operate any Curaçao-registered civil aircraft to which the measures of this subsection apply, except in accordance with the applicable mandatory continuing airworthiness information.

5.3.1.10 AMENDMENT OF A CERTIFICATE OF AIRWORTHINESS

(a) The Authority may amend a certificate of airworthiness or a special certificate of airworthiness:

(1) Upon application from an aircraft owner, operator, or agent; or

(2) On its own initiative.

(b) An amendment may be made under the following conditions:

(1) Modification to the aircraft (STC or amended TC);

(2) A change to the Authority and basis for issue;

(3) A change in the aircraft model; and

(4) A change in the operating limitations for an aircraft with a special certificate of airworthiness.

5.3.1.11 TRANSFER OR SURRENDER OF A CERTIFICATE OF AIRWORTHINESS

(a) An owner shall transfer the certificate of airworthiness for an aircraft to the:

(1) Lessee upon lease of the aircraft within or outside Curaçao

(2) Buyer upon sale of the aircraft within Curaçao

(b) An owner shall surrender the certificate of airworthiness for an aircraft to the issuing Authority upon sale of that aircraft outside of Curaçao.

5.3.1.12 COMMERCIAL AIR TRANSPORT

(a) The Authority will consider a certificate of airworthiness valid for commercial air transport only when accompanied by operations specifications, issued by the Authority, that identify the specific types of commercial air transport authorised.

5.3.1.13 DISPLAY OF A CERTIFICATE OF AIRWORTHINESS

(a) No person may operate a civil aircraft in Curaçao or registered in Curaçao unless the certificate of airworthiness required by this subpart, or a special flight permit, is displayed at the cabin or flight deck entrance so that it is legible to passengers or crew.

5.4 CONTINUING AIRWORTHINESS OF AIRCRAFT AND AERONAUTICAL PRODUCTS

5.4.1.1 APPLICABILITY

(a) This subpart prescribes rules governing the continuing airworthiness of civil aircraft, and as of 26 November 2026, RPA, registered in Curaçao whether operating inside or outside the borders of Curaçao.

(b) The Authority will, if it is the State of Registry for an aircraft, or as of 26 November 2026, an RPA, develop or adopt requirements to ensure the continuing airworthiness of the aircraft during its service life, including requirements to ensure that the aircraft:

(1) Continues to comply with the appropriate airworthiness requirements after a modification, a repair, or the installation of a replacement part;

(2) Is maintained in an airworthy condition and in compliance with the continuing airworthiness requirements;

(c) The Authority will, if it is the State of Registry, assess and take appropriate action upon receipt of mandatory continuing airworthiness information from the State of Design regarding registered aircraft, and as of 26 November 2026, an RPA.

5.4.1.2 GENERAL

(a) No person may perform maintenance, overhaul, modifications, repairs, or inspections on an aircraft, or as of 26 November 2026, an RPA, or aeronautical product other than as prescribed in this regulation.

(b) No person may operate an aircraft for which a manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness have been issued that contain an airworthiness limitation section unless the mandatory replacement times, inspection intervals, and related procedures specified in that section or alternative inspection intervals and related procedures set forth in the operations specifications approved under Part 9 of these regulations, or in accordance with the inspection programme approved under Part 8 of these regulations, have been complied with.

(c) No person may operate an aircraft, or as of 26 November 2026, an RPA, or aeronautical product to which an AD, issued by either the State of Design or State of Manufacture and adopted for Curaçao-registered aircraft by the Authority or by the State of Registry for aircraft operated within Curaçao, applies, except in accordance with the requirements of that AD.

(d) When the Authority determines that an aeronautical product has exhibited an unsafe condition and that condition is likely to exist or to develop in other products of the same type design, the Authority may issue an AD prescribing inspections and the conditions and limitations, if any, under which those products may continue to be operated.

(e) The Authority will report any ADs or additional continuing airworthiness requirements that it issues, or any malfunction or defect reports, to the State of Design.

5.4.1.3 RESPONSIBILITY

(a) The owner or operator of an aircraft, or in the case of a leased aircraft, the lessee, shall be responsible for maintaining the aircraft in an airworthy condition by ensuring that:

(1) All maintenance, overhaul, modifications, repairs, or inspections that affect airworthiness are performed as prescribed by the State of Registry;

(2) Maintenance personnel make appropriate entries in the aircraft continuing airworthiness records certifying that the aircraft is airworthy;

(3) The approval for return to service is completed to the effect that the maintenance work performed has been completed satisfactorily and in accordance with the prescribed methods; and

(4) In the event there are open discrepancies, the approval for return to service includes a list of the uncorrected maintenance items for which temporary relief is provided in the minimum equipment list, and these items are made a part of the aircraft permanent record.

(b) The owner or operator of an aeroplane over 5 700 kg maximum certificated take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the organisation responsible for the type design and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Authority.

Note: Guidance on the interpretation of "the organization responsible for the type design" is contained in the Airworthiness Manual (Doc 9760).

5.4.1.4 MAINTENANCE AND OPERATIONAL EXPERIENCE

(a) The owner or operator of an aeroplane over 5 700 kg maximum certificated take-off mass, or as of 26 November 2026, an RPA, shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and have a system whereby information on faults, malfunctions, defects, and other occurrences that cause or might cause adverse effects on the continuing

airworthiness of the aircraft is transmitted to the organisation responsible for the type design of the aircraft. Whenever this information relates to an engine or propeller, such information shall be transmitted to both the organization responsible for engine or propeller type design and the organization responsible for aircraft type design.

(b) The owner or operator and AMO shall, with respect to aeroplanes over 5 700 kg maximum certificated take-off mass, helicopters over 3 175 kg maximum certificated take-off mass, or as of 26 November 2026, an RPA, report to the Authority the service information required by the Authority according to the procedure established by the Authority.

(c) The owner or operator and AMO shall, with respect to aeroplanes over 5 700 kg maximum certificated take-off mass, helicopters over 3 175 kg maximum certificated take-off mass, or as of 26 November 2026, an RPA, transmit to the organisation responsible for the type design of the aircraft information on faults, malfunctions, defects, and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft.

5.4.1.5 REPORTING OF FAILURES, MALFUNCTIONS, AND DEFECTS

(a) Owners or operators of aircraft, or as of 26 November 2026, an RPA, shall report to the Authority any failure, malfunction, or defect concerning at least the following:

(1) Fires during flight and whether or not a fire-warning system was installed and functioned properly;

(2) A false fire warning during flight;

(3) An engine precautionary shutdown;

(4) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight due to foreign object ingestion or icing;

(9) Shutdown during flight of more than one engine;

(10) A propeller feathering system or the ability of the system to control overspeed during flight;

(11) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;

(12) A landing gear extension or retraction or opening or closing of landing gear doors during flight;

(13) A brake system component that results in loss of brake actuating force when the aircraft is in motion on the ground;

(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Authority;

(16) Aeronautical products or systems that require emergency actions during flight (except action to shut down an engine);

(17) An interruption to a flight, an unscheduled change of aircraft en-route, or an unscheduled stop or diversion from a route, caused by known or suspected technical difficulties or malfunctions;

(18) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure; and

(19) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

(b) Owners or operators of aircraft, or as of 26 November 2026, an RPA, shall report to the Authority:

(1) The number of engines removed prematurely because of malfunction, failure, or defect, listed by make and model and the aircraft type in which they were installed; and

(2) The number of propeller featherings in flight, listed by type of propeller, engine, and aircraft on which the propellers were installed.

(c) Each report required by this subsection shall:

(1) Be made within 3 days after determining that the failure, malfunction, or defect required to be reported has occurred; and

(2) Include as much of the following information as is available and applicable:

(i) The aircraft serial number;

(ii) When the failure, malfunction, or defect is associated with an aeronautical product approved under a TSO authorisation, the product serial number and model designation, as appropriate;

(iii) When the failure, malfunction, or defect is associated with an engine or a propeller, the engine or propeller serial number, as appropriate;

(iv) Identification of the part, component, or system involved, including the part number; and

(d) The nature of the failure, malfunction, or defect. The Authority, if it is the Authority of the State of Registry of the aircraft, or as of 26 November 2026, the RPA, will submit all such reports, upon receipt, to the State of Design.

(e) The Authority, if it is not the Authority of the State of Registry of the aircraft, or as of 26 November 2026, the RPA, will submit all such reports, upon receipt, to the State of Registry.

Note: Where the State of Design is other than the State of Manufacture, ICAO Annex 8, Part II, Chapter 4, 4.2.1.4, requires the State of Design and State of Manufacture to have a mutual arrangement for the transmission of continuing airworthiness information for appropriate action on the part of each State.

5.5 AIRCRAFT MAINTENANCE AND INSPECTION REQUIREMENTS

Note 1: FAA AC 43.13-1B, Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair*, is an example of an acceptable standard for the inspection and repair of non-pressurised aircraft when there are no manufacturer repair or maintenance instructions. FAA AC 43.13-2B,* Acceptable Methods, Techniques, and Practices – Aircraft Alterations*, contains acceptable methods for modification of non-pressurised aircraft when there are no manufacturer repair or maintenance instructions.*

Note 2: As of 26 November 2026, when the word "aircraft" is used, it includes the remotely piloted aircraft.

5.5.1.1 APPLICABILITY

(a) This subpart prescribes rules governing the maintenance and inspection of any aircraft having a certificate of airworthiness issued by Curaçao, or of any associated aeronautical products.

5.5.1.2 GENERAL REQUIREMENTS FOR MAINTENANCE AND INSPECTIONS

(a) No person may operate an aircraft unless the aircraft and aeronautical products and operational and emergency equipment are maintained in accordance with a maintenance programme and the aircraft and aeronautical product is inspected according to an inspection programme approved by the Authority.

(b) The maintenance programme shall include a description of the aircraft and aeronautical products and the recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.

(c) The maintenance programme shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.

(d) Maintenance tasks and frequencies that have been specified as mandatory by the State of Design in approval of the type design shall be identified in the maintenance programme.

(e) The maintenance programme shall have an approval for return to service process, including signed documentation, in a manner satisfactory to the Authority, indicating that the maintenance performed has been completed satisfactorily. An approval for return to service shall contain a certification including:

(1) Basic details of the maintenance carried out;

(2) The date such maintenance was completed;

(3) When applicable, the identity of the AMO, AMT, or AOC holder; and

(4) The identity of the person or persons signing the approval for return to service.

(f) The owner or operator shall use one of the following inspection programmes, as appropriate for the aircraft and the type of operation:

(1) Annual inspection;

(2) Annual/100-hour inspection;

(3) Progressive inspection; or

(4) Continuing airworthiness maintenance programme.

Note1: Mandatory requirements identified as part of the type design approval are often referred to as certification maintenance requirements and/or airworthiness limitations.

Note 2: For RPAs, the development of initial maintenance programme information at the time of RPA type certification can take advantage of the Maintenance Review Board process or the process of developing instructions for continuing airworthiness.

5.5.1.3 PERSONS AUTHORISED TO PERFORM MAINTENANCE, OVERHAUL, MODIFICATIONS, REPAIRS, AND INSPECTIONS

(a) No person or organisation may perform on an aircraft or aeronautical product any task defined as maintenance except as provided in the following:

(1) A pilot licensed by the Authority may perform preventive maintenance on any aircraft owned by that pilot so long as the aircraft is not listed for use by an AOC holder. (IS 5.1.1.2(B)(d)

(i) For any privately operated non-complex motor-powered aircraft of 2730 kg MTOM and below, the Pilot-owner may issue a certificate of release to service after limited pilot-owner maintenance as specified in IS 5.1.1.2(B)(d).

(ii) The Pilot-owner is always responsible for any maintenance that he performs.

(iii) Before carrying out any Pilot-owner maintenance tasks, the Pilot-owner must satisfy himself that he is competent to do the task. It is the responsibility of Pilot-owners to familiarize themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.

(iv) The Pilot-owner is responsible for identifying the Pilot-owner tasks according to these basic principles in the maintenance programme and for ensuring that the document is updated in a timely manner.

(v) The Pilot-owner may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

(2) A person working under the supervision of a licensed AMT may perform the maintenance, overhaul, modifications, repairs, and inspections that the supervisory AMT is authorised to perform:

(i) If the supervisor personally observes the work being done to the extent necessary to ensure that it is being done properly; and

(ii) If the supervisor is readily available, in person, for consultation.

(3) A licensed AMT may perform or supervise the maintenance or modification of an aircraft or aeronautical product for which that licensed AMT is rated subject to the limitations of Part 2 of these regulations.

(4) An AMO may perform aircraft maintenance, overhaul, modifications, repairs, and inspections within the limits specified by the Authority.

(5) The AOC holder may perform aircraft maintenance, overhaul, modifications, repairs, and inspections, as specified by the Authority.

(6) A manufacturer holding an AMO certificate may:

(i) Overhaul or modify any aeronautical product manufactured by that manufacturer under a type or production certificate;

(iii) Overhaul or modify any aeronautical product manufactured by that manufacturer under a TSO authorisation, a parts manufacturer approval issued by the State of Design, or a product and process specification issued by the State of Design; and

(iv) Perform any inspection required by Part 8 of these regulations on aircraft it manufactures while currently operating under a production certificate or a currently approved production inspection system for such aircraft.

5.5.1.4 AUTHORISED PERSONNEL TO APPROVE FOR RETURN TO SERVICE

(a) No person or entity, other than the Authority, may approve an aircraft or aeronautical product for return to service after it has undergone maintenance, overhaul, modifications, repairs, or inspections, except as provided in the following:

(1) A pilot licensed by the Authority may return that pilot's aircraft to service after performing authorised preventive maintenance.

(2) A licensed AMT may approve aircraft and aeronautical products for return to service after that licensed AMT has performed, supervised, or inspected its maintenance subject to the limitation of Part 2, section 2.4.4 of these regulations.

(3) An AMO may approve aircraft and aeronautical products for return to service as provided in the operations specifications approved by the Authority.

(4) An AOC holder may approve aircraft and aeronautical products for return to service as specified by the Authority.

5.5.1.5 PERSONS AUTHORISED TO PERFORM INSPECTIONS

(a) No person or organisation, other than the Authority, may perform the inspections required by 8.2.1.7 of these regulations prior to or after an aircraft or aeronautical product has undergone maintenance, overhaul, modifications, repairs, or inspections, except as provided in the following:

(1) An AMT may conduct the required inspections of aircraft and aeronautical products for which that AMT is rated and current.

(2) An AMO may perform the required inspections of aircraft and aeronautical products in accordance with the operations specifications approved by the Authority.

(3) An AOC holder may perform the required inspections of aircraft and aeronautical products in accordance with operations specifications approved by the Authority.

5.5.1.6 PERFORMANCE RULES: MAINTENANCE

(a) Each person performing maintenance, overhaul, modifications, repairs, or inspections on an aircraft or aeronautical product shall use the methods, techniques, and practices prescribed in:

(1) The current manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness prepared by the manufacturer; and

(2) Additional methods, techniques, and practices required by the Authority or methods, techniques, and practices designated by the Authority where the manufacturer's documentation was not available.

(b) Each person shall use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with accepted industry practices. If the manufacturer involved recommends special equipment or test apparatus, the person performing maintenance shall use that equipment or apparatus, or its equivalent, that is acceptable to the Authority.

(c) Each person performing maintenance, overhaul, modifications, repairs, or inspections on an aircraft or aeronautical product shall do that work in such a manner, and shall use materials of such a quality, that the condition of that aeronautical product shall be at least equal to its original or properly modified condition with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness.

(d) The methods, techniques, and practices contained in an air operator's Maintenance Control Manual and continuing airworthiness maintenance programme, as approved by the Authority, shall constitute an acceptable means of compliance with the requirements of this subsection.

(e) Aircraft parts and materials:

(1) All aeronautical parts and materials being installed or used on Curaçao registered aircraft must be traceable and must be supplied with documentation to attest to the fact.

(2) All rotable parts must be supplied with an original or certified copy of an Authorised Release Certificate that complies with the requirements of the CCAA, FAA, Transport Canada, EASA (European Aviation Safety Agency), or equivalent Aviation Safety Agency.

(3) All expendable parts must be supplied with either an Authorised Release Certificate as in (e)(2) or a signed Certificate of Conformity that carries an appropriate statement that the part complies with airworthiness requirements. Packing Slips that incorporate signed conformance certification are also acceptable.

(4) Segments of bulk parts covered under a single certification document may be supplied with a copy of the document along with the necessary certification stating the location where the original documentation is being held on file.

(5) Uncertified photocopies of documentation are NOT acceptable.

(6) Whenever a part or item of material is installed on an aircraft, the documentation specified in (e)(1) through (e)(4) above, as applicable, must be included in the aircraft records along with the worksheet, job card, or logbook page that carries the entry for the work performed.

5.5.1.7 PERFORMANCE RULES: INSPECTIONS

(a) GENERAL. Each person performing an inspection required by the Authority shall perform the inspection so as to determine whether the aircraft, or portion(s) thereof under inspection, meets all applicable airworthiness requirements.

(b) ROTORCRAFT. Each person performing an inspection required on a rotorcraft shall inspect the following systems in accordance with the manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness of the manufacturer concerned:

(1) The drive shafts or similar systems;

(2) The main rotor transmission gear box for obvious defects;

(3) The main rotor and centre section (or the equivalent area); and

(4) The auxiliary rotor on helicopters.

(c) ANNUAL AND 100-HOUR INSPECTIONS.

(1) Each person performing an annual or 100-hour inspection shall use a checklist while performing the inspection. The checklist may be of the person's own design, one provided by the manufacturer of the equipment being inspected, or one obtained from another source. The checklist shall include the scope and detail of the items prescribed by the Authority. The components that shall be included in an annual or 100-hour inspection are prescribed in IS 5.5.1.7.

(2) Each person approving a reciprocating-engine aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations of:

(i) Power output (static and idle rpm);

(ii) Magnetos;

(iii) Fuel and oil pressure; and

(iv) Cylinder and oil temperature.

(3) Each person approving a turbine-engine aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations.

(d) PROGRESSIVE INSPECTIONS.

(1) Each person performing a progressive inspection shall, at the start of a progressive inspection system, inspect the aircraft completely. After this initial inspection, routine and detailed inspections shall be conducted as prescribed in the progressive inspection schedule. Routine inspections consist of a visual examination or check of the aircraft and aeronautical products, insofar as practicable without disassembly. Detailed inspections consist of a thorough examination of the aircraft and aeronautical products, with such disassembly as is necessary. For the purposes of this paragraph, the overhaul of an aeronautical product is considered to be a detailed inspection.

(2) If the aircraft is away from the station where inspections are normally conducted, an appropriately rated AMT or AMO or the manufacturer of the aircraft may perform inspections in accordance with the procedures and using the forms of the person who would otherwise perform the inspection.

(e) CONTINUING AIRWORTHINESS MAINTENANCE PROGRAMME INSPECTIONS.

(1) Each person performing the inspection programme required for an AOC holder’s aircraft or an aircraft maintained under a continuing airworthiness maintenance programme shall perform the inspection in accordance with the instructions and procedures set forth in the inspection programme.

(f) DUPLICATE INSPECTIONS:

(1) No person shall operate an aircraft except as provided in the following:

(i) Whenever any system which can affect the attitude, flight path, or propulsive force of that aircraft is disturbed, or a defect in operation of the system is reported, a Duplicate Inspection is carried out on the system before the aircraft is returned to service.

(ii) Whenever any major repair, or major modification, is performed on any part of the structure of that aircraft, the failure of which may result in the aircraft’s inability to continue in safe flight, a Duplicate Inspection is performed on the repair or modification.

(2) A Duplicate Inspection shall be performed and certified, by two AMTs, independently, both

of whom shall be either type or class rated on the aircraft.

(3) The Inspection shall consist of a visual inspection and a functional check, to confirm the integrity, security, freedom from interference, and correct functioning of all parts of the system, from the pilot's control input to the operating surface or component. Where a repair or modification is being inspected, the inspection shall confirm compliance of the repair or modification with all aspects of the approved data.

(4) The Inspection shall be carried out first by one AMT and then subsequently by the second AMT. The system being inspected shall not be disturbed during the time lapse between the first and second inspections, and any such time lapse shall be kept to a minimum.

(5) At least one of the Inspectors performing the Duplicate Inspection shall not have been involved in the performance of the work being inspected.

(6) An Inspector assigned to the Quality section of a maintenance organization may perform the second part of a Duplicate Inspection.

(7) Each air operator shall develop a list of the systems on its aircraft that will require Duplicate Inspection and shall include this list in its Maintenance Control Manual. This list shall at a minimum include the following systems:

(a) Aileron and aileron trim.

(b) Elevator and elevator trim.

(c) Rudder and rudder trim.

(d) Horizontal stabilizer.

(e) Flaps. (trailing and leading edge)

(f) Slats.

(g) Speed brakes / Spoilers.

(h) Engine power lever (Throttle).

(i) Engine fuel shut-off (HP Cock).

(j) Propeller lever

(k) Engine fuel Mixture.

(l) Engine thrust reverser.

(m) Landing Gear extension and retraction.

5.5.1.8 PERFORMANCE RULES: AIRWORTHINESS LIMITATIONS

(a) Each person performing an inspection or other maintenance specified in an airworthiness limitations section of a current manufacturer's Aircraft Maintenance Manual or in instructions for continuing airworthiness shall perform the inspection or other maintenance in accordance with that section or in accordance with specifications approved by the Authority.

(b) Other Inspections. No person may operate an aircraft unless the following required inspections have been accomplished within the previous:

(1) 24 calendar months, for altimeter and pitot-static system;

(2) 12 calendar months for the transponder check for transponder equipped aircraft;

(3) 12 calendar months for the ELT check for ELT equipped aircraft;

(4) 30 days for the VOR receiver check for aircraft to be used in IFR operations,

(5) 12 calendar months for the magnetic compass calibration.

5.5.1.9 AIRCRAFT MASS AND BALANCE

(a) General

(1) Except as specified in (2) of this paragraph, the mass of each aircraft shall be determined prior to the initial issue of the Certificate of Airworthiness.

(2) Determination of the mass of an aircraft prior to the initial issue of a Certificate of Airworthiness may not be required in the case of:

(i) An aircraft in respect of which the mass has been determined prior to importation and in respect of which any subsequent changes in mass have been duly computed and recorded;

(ii) A newly manufactured aircraft having a maximum TOM not exceeding 5700 Kg., the empty mass of which has been established in accordance with information and computation supplied by the manufacturers thereof;

(iii) If the basic mass is estimated to have changed by not more than 0.5 % of the MTOM, and if the centre of gravity is estimated to have changed by not more than 0.5 % of the MAC.

(b) Periodic Determination of Mass

Unless otherwise approved by the Authority further determination of mass shall be done subsequent to the initial determination or mass determination arrived at in accordance with the above and at the intervals specified in the following;

(1) Every 5 years.

5.6 CONTINUING AIRWORTHINESS RECORDS

5.6.1.1 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR MAINTENANCE, MODIFICATIONS, AND REPAIRS OF AIRCRAFT AND LIFE-LIMITED PARTS

(a) Each person who maintains, modifies, or repairs an aircraft or life-limited parts shall, when the work is performed satisfactorily, make an entry in the continuing airworthiness record of that equipment as follows:

(1) A description (or reference to data acceptable to the Authority) of work performed, including:

(i) Total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts;

(ii) Current status of compliance with all mandatory continuing airworthiness information;

(iii) Appropriate details of modifications and repairs;

(iv) Time in service (hours, calendar time, and cycles, as appropriate) since the last overhaul of the aircraft or its components subject to a mandatory overhaul life;

(v) Current status of the aircraft's compliance with the maintenance programme; and

(vi) Specific details to show that all requirements for the signing of an approval for return to service have been met.

(2) The completion date of the work performed.

(3) The name, signature, licence number, and type of licence held by the person approving the work.

Note: The signature constitutes the approval for return to service only for the work performed.

(b) In addition to the entry required by paragraph 5.6.1.1(a) of this subsection, each person performing a major repair or major modification shall record such work on a form and in the manner prescribed in IS 5.6.1.1(B).

5.6.1.2 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR MAINTENANCE, OVERHAUL, MODIFICATIONS, AND REPAIRS OF AN AERONAUTICAL PRODUCT

(a) No person shall approve for return to service any aeronautical product that has undergone maintenance, overhaul, modifications, or repairs unless:

(1) The appropriate continuing airworthiness record entry has been made; and

(2) The Major Repair or Modification form authorised or furnished by the Authority has been executed in a manner prescribed by the Authority.

(b) If a major repair or modification results in any change in the aircraft operating limitations or flight data contained in the approved Aircraft Flight Manual, those operating limitations or that flight data is appropriately revised and set forth as prescribed.

(c) No person shall describe, in any required maintenance entry or on any form, an aeronautical product as being overhauled unless that aeronautical product has been:

(1) Disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled using methods, techniques, and practices acceptable to the Authority; and

(2) Tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, that have been developed and documented by the holder of the TC, the STC, or a material, part, process, or appliance manufacturing approval by the Authority.

(d) No person shall describe in any required maintenance entry or form an aircraft or other aeronautical product as being rebuilt unless it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits.

(a) If the maintenance, overhaul, modification, or repair of an aeronautical product is performed by an AMO, the AMO shall complete an airworthiness approval tag, as prescribed in Part 6 of these regulations.

5.6.1.3 CONTENT, FORM, AND DISPOSITION OF RECORDS OF INSPECTIONS FOR RETURN TO SERVICE

(a) INSPECTION RECORD ENTRIES. The person approving or disapproving for return to service an aircraft or aeronautical product after any inspection performed in accordance with Part 8 of these regulations shall make an entry in the continuing airworthiness record of that equipment containing the following information:

(1) The type of inspection and a brief description of the extent of the inspection;

(2) The date of the inspection and aircraft or aeronautical product total places time in service;

(3) The signature, licence number, and type of licence held by the person approving or disapproving for return to service the aircraft or aeronautical product;

(4) If the aircraft or aeronautical product is found to be airworthy and approved for return to service, the following or a similarly worded statement: “I certify that this aircraft or aeronautical product has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”;

(5) If the aircraft or aeronautical product is not approved for return to service because of needed maintenance or non-compliance with the applicable specifications, ADs, or other approved data, the following or a similarly worded statement: “I certify that this aircraft or aeronautical product has been inspected in accordance with (insert type) inspection and a list of discrepancies and unairworthy items dated (insert date) has been provided for the aircraft owner or operator”; and

(6) If an inspection is conducted under an inspection programme provided for in Part 8 of these regulations, an entry identifying the inspection programme and that part of the inspection programme accomplished and containing a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme.

(b) LISTING OF DISCREPANCIES. If the person performing any inspection required by Part 8 of these regulations finds that the aircraft is not airworthy or does not meet the applicable type certificate data, ADs, or other approved data upon which its airworthiness depends, that person shall give the owner or operator of the aircraft a signed and dated list of those discrepancies.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 5 – IMPLEMENTING STANDARDS

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PART 5 – IMPLEMENTING STANDARDS

IS 5.1.1.2(B) DEFINITIONS

(a) Major Modifications

(1) AIRFRAME MAJOR MODIFICATIONS. Major airframe modifications include modifications to the following aircraft parts, or modifications of the following types, when not included in the applicable manufacturer specifications or type certificate data sheet:

(i) Wings

(ii) Tail surfaces

(iii) Fuselage

(iv) Engine mounts

(v) Control system

(vi) Landing gear

(vii) Hull or floats

(viii) Elements of an airframe, including spars, ribs, fittings, shock absorbers, bracing, cowlings, fairings, and balance weights

(ix) Hydraulic and electrical actuating system of components

(x) Rotor blades

(xi) Changes to the empty mass or empty balance that would result in an increase in the maximum certificated take-off mass or centre of gravity limits of the aircraft

(xii) Changes to the basic design of the fuel, oil, cooling, heating, cabin pressurisation, electrical, hydraulic, de-icing, or exhaust systems

(xiii) Changes to the wing, or to fixed or movable control surfaces, that would affect flutter and vibration characteristics

(2) POWERPLANT MAJOR MODIFICATIONS. Major powerplant modifications, even when not listed in the applicable engine specifications, include:

(i) Conversion of an aircraft engine from one approved model to another, involving any changes in compression ratio, propeller reduction gear, impeller gear ratios, or the substitution of major engine parts that requires extensive rework and testing of the engine

(ii) Changes to the engine by replacing aircraft engine structural parts with parts not supplied by the original manufacturer or parts not specifically approved by the Authority

(iii) Installing an accessory that is not approved for the engine

(iv) Removing accessories that are listed as required equipment on the aircraft or engine specification

(v) Installing structural parts other than the type of parts approved for the installation

(vi) Conversions of any sort for the purpose of using fuel of a rating or grade other than that listed in the engine specifications.

(3) PROPELLER MAJOR MODIFICATIONS. Major propeller modifications, when not authorised in the applicable propeller specifications, include:

(i) Changing the blade design

(ii) Changing the hub design

(iii) Changing the governor or control design

(iv) Installing a propeller governor or feathering system

(v) Installing a propeller de-icing system

(vi) Installing parts not approved for the propeller

(4) APPLIANCE MAJOR MODIFICATIONS. Major appliance modifications are modifications of the basic design not made in accordance with the recommendations of the appliance manufacturer or in accordance with applicable ADs. In addition, major appliance modifications include changes in the basic design of radio communication and navigation equipment approved under type certification or other authorisation that have an effect on frequency stability, noise level, sensitivity, selectivity, distortion, spurious radiation, automatic volume control characteristics, or the ability to meet environmental test conditions and other changes that have an effect on the performance of the equipment.

(b) Major Repairs

(1) AIRFRAME MAJOR REPAIRS. Major airframe repairs include repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members, or their replacement, when replacement is by fabrication such as riveting or welding:

(i) Box beams

(ii) Monocoque or semi-monocoque wings or control surfaces

(iii) Wing stringers or chord members

(iv) Spars

(v) Spar flanges

(vi) Members of truss-type beams

(vii) Thin sheet webs of beams

(viii) Keel and chine members of boat hulls or floats

(ix) Corrugated sheet compression members that act as flange material of wings or tail surfaces

(x) Wing main ribs and compression members

(xi) Wing or tail surface brace struts

(xii) Engine mounts

(xiii) Fuselage longerons

(xiv) Members of the side truss, horizontal truss, or bulkheads

(xv) Main seat support braces and brackets

(xvi) Landing gear brace struts

(xvii) Axles

(xviii) Wheels

(xix) Parts of the control system such as control columns, pedals, shafts, brackets, or horns

(xx) Repairs involving the substitution of material

(xxi) Repairs to damaged areas in a metal- or plywood-stressed covering exceeding 15 cm in any direction

(xxii) Repairs to portions of skin sheets by making additional seams

(xxiii) Splicing of skin sheets

(xxiv) Repairs to three or more adjacent wing or control surface ribs or to the leading edge of wings and control surfaces between such adjacent ribs

(xxv) Repairs to fabric covering involving an area greater than that required to repair two adjacent ribs

(xxvi) Replacement of fabric on fabric-covered parts such as wings, fuselages, stabilisers, and control surfaces

(xxvii) Repairs, including rebottoming, to removable or integral fuel tanks and oil tanks

(2) POWERPLANT MAJOR REPAIRS. Major powerplant repairs include the following:

(i) Separation of or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with an integral supercharger

(ii) Separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with other than spur-type propeller reduction gearing

(iii) Special repairs to structural engine parts by welding, plating, metallising, or other methods

(3) PROPELLER MAJOR REPAIRS. Major propeller repairs include the following:

(i) Repairing or straightening steel blades

(ii) Repairing or machining steel hubs

(iii) Shortening blades

(iv) Retipping wood propellers

(v) Replacing outer laminations on fixed-pitch wood propellers

(vi) Repairing elongated bolt holes in the hub of fixed-pitch wood propellers

(vii) Inlay work on wood blades

(viii) Repairing composition blades

(ix) Replacing tip fabric

(x) Replacing plastic covering

(xi) Repairing propeller governors

(xii) Overhauling controllable pitch propellers

(xiii) Repairing deep dents, cuts, scars, nicks, etc., and straightening aluminum blades

(xiv) Repairing or replacing internal elements of blades

(4) APPLIANCE MAJOR REPAIRS. Major appliance repairs include the following:

(i) Calibrating and repairing instruments

(ii) Calibrating avionics or computer equipment

(iii) Rewinding the field coil of an electrical accessory

(iv) Completely disassembling complex hydraulic power valves

(v) Overhauling pressure-type carburetors and pressure-type fuel, oil, and hydraulic pumps

(c) Preventive maintenance

(1) Preventive maintenance is limited to the following work, provided it does not involve complex assembly operations:

(i) Removing, installing, and repairing landing gear tires

(ii) Replacing elastic shock absorber cords on landing gear

(iii) Servicing landing gear shock struts by adding oil, air, or both

(iv) Servicing landing gear wheel bearings (e.g., cleaning and greasing)

(v) Replacing defective safety wiring or cotter keys

(vi) Lubrication not requiring disassembly other than removal of nonstructural items such as cover plates, cowlings, and fairings

(vii) Making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces

(viii) Replenishing hydraulic fluid in the hydraulic reservoir

(ix) Refinishing the decorative coating of the fuselage, wings, tail group surfaces (excluding balanced control surfaces), fairings, cowlings, landing gear, or cabin or flight deck interior, when the removal or disassembly of any primary structure or operating system is not required

(x) Applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices

(xi) Repairing the upholstery and decorative furnishings of the cabin or flight deck, when the repair does not require disassembly of any primary structure or operating system and does not interfere with an operating system or affect any primary structure of the aircraft

(xii) Making small, simple repairs to fairings, nonstructural cover plates, and cowlings and small patches and reinforcements not changing the contour in such a way as to interfere with proper airflow

(xiii) Replacing side windows where that work does not interfere with the structure of any operating system, such as controls, electrical equipment, etc.

(xiv) Replacing safety belts

(xv) Replacing seats or seat parts with replacement parts approved for the aircraft, not involving the disassembly of any primary structure or operating system

(xvi) Troubleshooting and repairing broken circuits in landing light wiring circuits

(xvii) Replacing bulbs, reflectors, and lenses of position and landing lights

(xviii) Replacing wheels and skis where no mass and balance computation is involved

(xix) Replacing any cowling not requiring removal of the propeller or disconnection of flight controls

(xx) Replacing or cleaning spark plugs and setting spark plug gap clearance

(xxi) Replacing any hose connections except hydraulic connections

(xxii) Replacing prefabricated fuel lines

(xxiii) Cleaning fuel and oil strainers

(xxiv) Replacing and servicing batteries

(xxv) Replacing or adjusting nonstructural fasteners incidental to operations

(xxvi) Installing anti-misfuelling devices to reduce the diameter of fuel tank filler openings, provided the aircraft manufacturer has made the specific device a part of the aircraft TC data, the manufacturer has provided appropriately approved instructions acceptable to the Authority for the installation of the specific device, and installation does not involve the disassembly of the existing filler opening.

(d) Maintenance tasks shall not be carried out by the Pilot-owner when the task:

(1) is critically safety related, whose incorrect performance will drastically affect the airworthiness of the aircraft or is a flight safety sensitive maintenance task as specified in Subpart 5.5.1.7 and/or;

(2) requires the removal of major components or major assembly and/or;

(3) is carried out in compliance with an Airworthiness Directive or an Airworthiness Limitation Item, unless specifically allowed in the AD or the ALI and/or;

(4) requires the use of special tools, calibrated tools (except torque wrench and crimping tool) and/or;

(5) requires the use of test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or;

(6) is composed of any unscheduled special inspections (e.g. heavy landing check) and/or;

(7) is effecting systems essential for the IFR operations and/or;

(8) is listed in IS 5.1.1.2(B)(a)(b) or is a component maintenance task.

Note1: The criteria 1 to 8 listed above can not be overridden by less restrictive instructions issued in accordance with the Maintenance Programme".

Note2: Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered a Pilot-owner maintenance task and therefore does not require a Certificate of Release to Service

IS 5.3.1.5 ISSUANCE OF A STANDARD CERTIFICATE OF AIRWORTHINESS

(a) The standard certificate of airworthiness issued by the Authority will be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority**	**No. :** This certificate shall be carried in the aircraft at all times.
CERTIFICATE OF AIRWORTHINESS		
1. Nationality and registration marks	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number
4. Categories and/or operation		
5. This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944, Article 5, Paragraph 1 of the Civil Aviation Act of Curaçao and regulations issued thereunder in respect of the above-mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations. Date of issue Signature _____ Director General Curaçao Civil Aviation Authority		
6. Date of expiry		

(b) The standard certificate of airworthiness issued by the Authority for RPA will be as follows:

	CURAÇAO **Ministry of Traffic, Transport and Urban Planning** **Curaçao Civil Aviation Authority**	**No:**
	CERTIFICATE OF AIRWORTHINESS – RPA	
1. Nationality and registration marks:	2. Manufacturer and manufacturer's designation of RPA:	3. RPA serial number:
4. RPS type(s) and/or model(s):		5. Link(s) for RPA (C2 Link(s)):
6. Categories of aircraft/operation:		
7. This certificate of airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944 and to [APPROPRIATE AIRWORTHINESS CODE] with respect to the above-mentioned RPA, which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations.		
Date of issue: _____	[Signature]: _____	
8.		

IS 5.3.1.6 ISSUANCE OF A SPECIAL CERTIFICATE OF AIRWORTHINESS

(a) The special certificate of airworthiness issued by the Authority will be as follows:

<table>
<tr><td rowspan="3">  </td><td colspan="2">CURACAO</td></tr>
<tr><td colspan="2">Curacao Civil Aviation Authority</td></tr>
<tr><td colspan="2">SPECIAL CERTIFICATE OF AIRWORTHINESS</td></tr>
<tr><td colspan="3">Category/designation:</td></tr>
<tr><td colspan="3">Purpose:</td></tr>
<tr><td rowspan="2">Manufacturer:</td><td colspan="2">Name:</td></tr>
<tr><td colspan="2">Address:</td></tr>
<tr><td rowspan="2">Flight:</td><td colspan="2">From:</td></tr>
<tr><td colspan="2">To:</td></tr>
<tr><td>Registration number:</td><td colspan="2">Serial number:</td></tr>
<tr><td>Builder:</td><td colspan="2">Model:</td></tr>
<tr><td>Date of issuance:</td><td colspan="2">Date of expiry:</td></tr>
<tr><td colspan="3">Operating limitations dated [dd/mm/yyyy] are part of this certificate</td></tr>
<tr><td>Signature of CAA representative:</td><td colspan="2">Designation or office number:</td></tr>
<tr><td colspan="3">Any alteration, reproduction, or misuse of this certificate may be punishable as specified in Part 1 of the aviation regulations. This certificate shall be displayed in the aircraft in accordance with Part 8 of the aviation regulations.</td></tr>
<tr><td>CAA form number:</td><td colspan="2">See Reverse Side</td></tr>
<tr><td colspan="3">Front of form</td></tr>
</table>

This special certificate of airworthiness is issued under the authority of the Civil Aviation Safety Act (the Act), as amended, and Part 5 of the aviation regulations.
This special certificate of airworthiness authorises the manufacturer named on the reverse side to conduct production flight tests, and only production flight tests, of aircraft registered in its name. No person may conduct production flight tests: (1) carrying persons or property for remuneration or hire, and/or (2) carrying persons not essential for the purpose of the flight.
This special certificate of airworthiness authorises the flight specified on the reverse side for the sole purpose shown in the purpose block.
This special certificate of airworthiness certifies that as of the date of issuance, the aircraft to which it is issued has been inspected and found to meet the applicable aviation regulations. The aircraft does not meet the requirements of the applicable and comprehensive detailed airworthiness code as provided by Annex 8 of the Convention on International Civil Aviation. No person may operate the aircraft described on the reverse side (1) except in accordance with the applicable aviation regulations and in accordance with terms, conditions, and limitations that may be prescribed by the Authority as part of this certificate or (2) over any foreign country without the permission of that country.
Unless sooner surrendered, suspended, or revoked, this special certificate of airworthiness is effective for the duration and under the conditions prescribed in the regulatory requirements.
Back of form

CAA form dated 11/2019

FAA Order 8130.2J

IS 5.5.1.7 PERFORMANCE RULES: INSPECTIONS

(a) Each person performing an annual or 100-hour inspection shall, before that inspection, thoroughly clean the aircraft and aircraft engine and remove or open all necessary inspection plates, access doors, fairings, and cowlings.

(b) Each person performing an annual or 100-hour inspection shall inspect, where applicable, the following components:

(1) Fuselage and hull group:

(i) Fabric and skin – for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings

(ii) Systems and components – for improper installation, apparent defects, and unsatisfactory operation

(2) Cabin and flight deck group:

(i) Generally – for uncleanness and loose equipment that might foul the controls

(ii) Seats and safety belts – for poor condition and apparent defects

(iii) Windows and windshields – for deterioration and breakage

(iv) Instruments – for poor condition, mounting, marking, and (where practicable) for improper operation

(v) Flight and engine controls – for improper installation and improper operation

(vi) Batteries – for improper installation and improper charge

(vii) All systems – for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment

(3) Engine and nacelle group:

(i) Engine section – for visual evidence of excessive oil, fuel, or hydraulic leaks, and for the sources of such leaks

(ii) Studs and nuts – for improper torqueing and obvious defects

(iii) Internal engine – for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs; if there is weak cylinder compression, for improper internal condition and improper internal tolerances

(iv) Engine mount – for cracks, looseness of mounting, and looseness of engine to mount

(v) Flexible vibration dampeners – for poor condition and deterioration

(vi) Engine controls – for defects, improper travel, and improper safetying

(vii) Lines, hoses, and clamps – for leaks, improper condition, and looseness

(viii) Exhaust stacks – for cracks, defects, and improper attachment

(ix) Accessories – for apparent defects in security of mounting

(x) All systems – for improper installation, poor general condition, defects, and insecure attachment

(xi) Cowling – for cracks and defects

(4) Landing gear group:

(i) All units – for poor condition and insecurity of attachment

(ii) Shock absorbing devices – for improper oleo fluid level

(iii) Linkage, trusses, and members – for undue or excessive wear, fatigue, and distortion

(iv) Retracting and locking mechanism – for improper operation

(v) Hydraulic lines – for leakage

(vi) Electrical system – for chafing and improper operation of switches

(vii) Wheels – for cracks, defects, and condition of bearings

(viii) Tires – for wear and cuts

(ix) Brakes – for improper adjustment

(x) Floats and skis – for insecure attachment and obvious or apparent defects

(5) Wing and centre section assembly for:

(i) Poor general condition

(ii) Fabric or skin deterioration

(iii) Distortion

(iv) Evidence of failure

(v) Insecurity of attachment

(6) Complete empennage assembly for:

(i) Poor general condition

(ii) Fabric or skin deterioration

(iii) Distortion

(iv) Evidence of failure

(v) Insecure attachment

(vi) Improper component installation

(vii) Improper component operation

(7) Propeller group:

(i) Propeller assembly – for cracks, nicks, binds, and oil leakage

(ii) Bolts – for improper torqueing and lack of safety

(iii) Anti-icing devices – for improper operations and obvious defects

(iv) Control mechanisms – for improper operation, insecure mounting, and restricted travel

(8) Avionics/instruments group:

(i) Avionics/instrument equipment – for improper installation and insecure mounting

(ii) Wiring and conduits – for improper routing, insecure mounting, and obvious defects

(iii) Bonding and shielding – for improper installation and poor condition

(iv) Antenna, including trailing antenna – for poor condition, insecure mounting, and improper operation

(9) Electronic/electrical group:

(i) Wiring and conduits – for improper routing, insecure mounting, and obvious defects

(ii) Bonding and shielding – for improper installation and poor condition

(10) Each installed miscellaneous item that is not otherwise covered by this listing and/or has instructions for continuing airworthiness – for improper installation and improper operation

IS 5.6.1.1(B) RECORDING OF MAJOR REPAIRS AND MODIFICATIONS

(a) Each person performing a major repair or major modification shall:

(1) Execute the appropriate form prescribed by the Authority at least in duplicate;

(2) Give a signed copy of that form to the aircraft owner/operator; and

(3) Forward a copy of that form to the Authority, in accordance with Authority instructions, within 48 hours after the aeronautical product is approved for return to service.

Note: Some States have an electronic system for recording major repairs and modifications. This IS is written presuming the State will use a hard copy form in duplicate. If an electronic system is used, the items here are recommended for inclusion in the system.

(b) For major repairs made in accordance with a manual or specifications acceptable to the Authority, an AMO may, in place of the requirements of IS 5.6.1.1(B)(a):

(1) Use the customer's work order upon which the repair is recorded;

(2) Give the aircraft owner a signed copy of the work order and retain a duplicate copy for at least 1 year from the date of approval for return to service of the aeronautical product;

(3) Give the aircraft owner an approval for return to service signed by an authorised representative of the AMO and incorporate the following information:

(i) The identity of the aeronautical product;

(ii) If an aircraft, the make, model, serial number, nationality and registration marks, and location of the repaired area;

(iii) If an aeronautical product, the manufacturer's name, the name of the part, the model, and the serial numbers (if any); and

(4) Include the following or a similarly worded statement:

The aircraft or aeronautical product identified above was repaired, overhauled, and inspected in accordance with currently effective, applicable instructions of the State of Design and in accordance with the regulatory requirements of the Authority and is approved for return to service.

Pertinent details of the repair are on file at this maintenance organisation.

Order no.: _____ Date: _____

Signed: _____

(Signature of authorised representative)

_____ _____

(Facility name) *(AMO certificate number)*

(Address)

(c) The following sample form may be used to record major repairs and major modifications:

MAJOR REPAIR AND MODIFICATION OF AN AERONAUTICAL PRODUCT	Curaçao
	For CAA Use Only
	Office Identification

INSTRUCTIONS: Print or type all entries. See paragraph 5.6.1.1(b) and IS 5.6.1.1(B) of the regulatory requirements for instructions and disposition of this form.

1. Aircraft	Make:	Model:
	Serial number:	Nationality and registration marks:
2. Owner	Name (as shown on certificate of aircraft registration):	Address (as shown on certificate of aircraft registration):

3. For Authority Use Only

4. Unit Identification				**5. Type**	
Unit	Make	Model	Serial Number	Repair	Modification
Airframe	(as described in item 1 above)				
Powerplant					
Propeller					
Appliance	Type:				
	Manufacturer:				

6. Conformity Statement

A. Organisation Name and Address	B. Type of Licence/Organisation	C. Certificate/Licence Number
	☐ Licensed (AMT) ☐ A ☐ P or ☐ A/P	(For an AMO, include the appropriate ratings issued for the major repair or modification)
	☐ AMO	

D. I certify that the repair and/or modification made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with Part 5 of the aviation regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date:	Signature of authorised individual:

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit(s) identified in item 4 were inspected in the manner prescribed by the Director of Civil Aviation and are ☐ APPROVED ☐ REJECTED

BY				
	☐ CAA inspector	☐ Inspection authorisation		Other (specify):
	☐ Maintenance organisation	☐ Other		

Date of approval or rejection:	Certificate or designation number:	Signature of authorised individual:

NOTICE

Mass and balance or operating limitation changes shall be entered in the appropriate aircraft record. A modification shall be compatible with all previous modifications to assure continuing conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify each page with the aircraft nationality and registration marks and the date the work was completed.)

Instructions for Completion of Major Repair and Modification of an Aeronautical Product Form

Item 1 – Aircraft. The information to complete the make, model, and serial number blocks will be found on the aircraft manufacturer's identification plate. The nationality and registration mark is the same as shown on the certificate of aircraft registration.

Item 2 – Owner. Enter the aircraft owner's complete name and address as shown on the certificate of aircraft registration.

Note: When a major repair or modification is made to a spare part or an appliance, items 1 and 2 will be left blank, and the original and duplicate copies of the form will remain with the part until such time as it is installed on an aircraft. The person installing the part will then enter the required information in blocks 1 and 2, give the original of the form to the aircraft owner/operator, and forward the duplicate copy to the Authority within 48 hours after the work is inspected.

Item 3 – For Authority Use Only. Approval may be indicated in item 3 when the Authority determines that data to be used in performing a major modification or a major repair complies with accepted industry practices and all applicable aviation regulations. Approval is indicated by one of the following methods:

1. Approval by examination of data only – one aircraft only: "The data identified herein complies with the applicable airworthiness requirements and is approved for the above-described aircraft, subject to conformity inspection by a person authorised in 5.5.1.5 of the aviation regulations."
2. Approval by physical inspection, demonstration, testing, etc., of the data and aircraft – one aircraft only: "The modification or repair identified herein complies with the applicable airworthiness requirements and is approved for the above-described aircraft, subject to conformity inspection by a person authorised in 5.5.1.5 of the aviation regulations."
3. Approval by examination of data only – duplication on identical aircraft: "The modification identified herein complies with the applicable airworthiness requirements and is approved for duplication on identical aircraft make, model, and modified configuration by the original modifier."
4. A signature in item 3 indicates approval of the data described in that section for use in accomplishing the work described under item 8, "Description of the Work Accomplished." This signature does not indicate CAA approval of the work described under item 8 for return to service.

Item 4 – Unit Identification. The blocks under item 4 are used to identify the airframe, powerplant, propeller, or appliance repaired or modified. It is only necessary to complete the blocks for the unit repaired or modified.

Item 5 – Type. Enter a check mark in the appropriate column to indicate if the unit was repaired or modified.

Item 6 – Conformity Statement:

1. A – Organisation Name and Address. Enter the name of the AMT or AMO accomplishing the repair or modification. AMTs shall enter their name and permanent mailing address. AMOs shall enter the name and address under which they do business.
2. B – Type of Licence/Organisation. Check the appropriate box to indicate the type of licence or the organisation that performed the work.
3. C – Certificate/Licence Number. AMTs shall enter their AMT licence number in this block. AMOs shall enter their AMO certificate number and the rating or ratings under which the work was performed. Manufacturers shall enter their type production or STC number. Manufacturers of TSO appliances modifying these appliances shall enter the TSO number of the appliance modified.
4. D – Compliance Statement. This space is used to certify that the repair or modification was made in accordance with Part 5 of the aviation regulations. When work was performed or supervised by a licensed AMT not employed by an AMO, the AMT shall enter the date that the repair or modification was completed and shall sign the AMTs full name. AMOs are permitted to authorise persons in their employ to date and sign this compliance statement.
5. A signature in item 6 is a certification by the person performing the work that the work was accomplished in accordance with applicable CAA and CAA-approved data. The certification is only

applicable to that work described under item 8. This signature does not indicate CAA approval of the work described under item 8 for return to service.

Item 7 – Approval for Return to Service. Part 5 of the aviation regulations establishes the conditions under which major repairs and modifications to aeronautical products may be approved for return to service. This portion of the form is used to indicate approval or rejection of the repair or modification of the unit involved and to identify the person or agency making the airworthiness inspection. Check the approved or rejected box to indicate the finding. Additionally, check the appropriate box to indicate who made the finding. Use the box labelled "other" to indicate a finding by a person other than those listed. Enter the date the finding was made. The authorised person who made the finding shall sign the form and enter the appropriate certificate or designation number.

1. Previously Approved Data. The forms shall be completed as instructed, ensuring that item 7 is completed as noted above.
2. Non-previously Approved Data. The form shall be completed as instructed, leaving item 7 blank, and both copies of the form shall be sent to the Authority with supporting data. When the Authority determines that the major repair or modification data complies with the applicable regulations and is in conformity with accepted industry practices, data approval will be recorded by entering an appropriate statement in item 3. Both forms and supporting data will be returned to the applicant, who shall complete item 7. The applicant shall give the original of the form, with its supporting data, to the aircraft owner or operator and shall return the duplicate copy to the Authority for inclusion in the aircraft records at its Aircraft Registry.
3. A signature in item 7 does not signify CAA approval unless the box to the left of "CAA Inspector" has been checked. The other persons listed in item 7 are authorised to approve for return to service if the repair or modification is accomplished using CAA-approved data, performed in accordance with Part 5 of the aviation regulations, and found to conform.

Item 8 – Description of Work Accomplished. A clear, concise, and legible statement describing the work accomplished shall be entered in item 8 on the reverse side of the form. It is important that the location of the repair or modification, relative to the aircraft or component, be described. The approved data used as the basis for approving the major repair or modification for the return to service shall be identified and described in this area.

1. For example, if a repair was made to a buckled spar, the description entered in this item might begin by stating, "Removed wing from aircraft and removed skin from outer 1.83 m. Repaired buckled spar 1.25 m from the tip in accordance with…" and continue with a description of the repair. The description shall refer to applicable regulations and approved data used to substantiate the airworthiness of the repair or modification. If the repair or modification is subject to being covered by skin or other structures, a statement shall be made certifying that an in-process inspection was made and that covered areas were found satisfactory.
2. Data used as a basis for approving major repairs or modifications for return to service shall be approved prior to its use for that purpose and includes: ADs, ACs under certain circumstances, TSO parts manufacturing approval, Approved Manufacturer's instructions, kits and service handbooks, type certificate data sheets, and aircraft specifications. Supporting data such as stress analyses, test reports, sketches, or photographs shall be submitted on the form. The Authority will return this supporting data to the applicant.
3. If additional space is needed to describe the repair or modification, sheets shall be attached bearing the aircraft nationality and registration mark and the date the work was completed.
4. Showing mass and balance computations under item 8 is not required; however, it may be done. In all cases where mass and balance of the aircraft are affected, the changes shall be entered in the aircraft mass and balance records with the date, a signature, and a reference to the Major Repair and Modification form that describes the work that required the changes.

Note: The Major Repair and Modification form is not authorised for use on other than Curaçao-registered aircraft. If a foreign civil aviation authority requests the form as a record of work performed, it may be provided.

CURAÇAO CIVIL AVIATION REGULATION

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PART 6— APPROVED MAINTENANCE ORGANIZATION

6.1 GENERAL

6.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for issuing approvals to organizations for the maintenance, overhaul, modification, repair, and inspection, of aircraft and aeronautical products and prescribes the general operating rules for an AMO.

6.1.1.2 DEFINITIONS

(hh) Definitions are contained in Part 1 these regulations.

6.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part.

(1) **AD – Airworthiness Directive**

(2) **AAT** – Airworthiness Approval Tag

(3) **AMM – Aircraft Maintenance Manual**

(4) **AMO** – Approved Maintenance Organization.

(5) **AMT** – Aviation Maintenance Technician

(6) **EWIS** – Electrical Wiring Interconnection System

(7) **IS – Implementing Standards**

(8) **MCM –** Maintenance Control Manual

(9) **NDI** – nondestructive inspection

(10) **NDT** – Non-Destructive Testing

(11) **SB** – Service Bulletin

(12) **SMS** – safety management system

(13) **TC** – type certificate

(14) **PAH** - Production Approval Holder

(15) **TSO** – Technical Standard Order

6.1.1.4 EXEMPTION AUTHORITY

(a) The Authority may, upon consideration of the circumstances of a particular maintenance organization, issue an exemption providing relief from specified sections of this Part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.

(b) The Authority may be terminated or amended an exemption at any time.

(c) A request for exemption shall be made in accordance with the requirements in Part 1 of these regulations and shall include a risk assessment

(d) An approved maintenance organization that receives an exemption shall have a means of notifying the appropriate management, certifying staff, and personnel of the exemption.

6.2 CERTIFICATION OF A MAINTENANCE ORGANIZATION AND CONTINUED VALIDITY OF THE CERTIFICATE

6.2.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for the certification of an organizations involved in the maintenance of aircraft, engines, propellers and associated parts, and the continued validity of the certificate issued by Curaçao.

6.2.1.2 GENERAL

(a) No person may operate as an AMO without, or in violation of, an AMO certificate and operations specifications issued under this part.

(b) The certificate and operations specifications issued to an approved maintenance organization must be available on the premises for inspection by the public and the Authority.

(c) The approval of an AMO by the authority shall be dependent upon the applicant demonstrating compliance with the requirements of this part and the safety management requirements. in this Part.

(d) The authority shall define appropriate requirements for the approval of organizations involved in the maintenance of aircraft, engines, propellers and associated parts.in accordance with the Standards of this Part.

(e) The approval of a maintenance organization or accepting the approval of a maintenance organization issued by another Contracting State, the State of Registry shall ensure compliance with the requirements of this Part.

(f) Where the authority accepts, in whole or in part, a maintenance organization approval issued by another Contracting State, it shall establish a process for the recognition of such approval and successive changes. In such a case, the authority shall build an adequate liaison with the Contracting State that initially issued the maintenance organization approval.

6.2.1.3 AMO CERTIFICATE

(a) The certificate issued to an AMO by Curaçao will consist of two documents:

(1) A one-page certificate for public display signed by the Authority; and

(2) Operations specifications signed by the accountable manager and the Authority.

(b) The certificate will contain the following items and will be on a form and in a manner as prescribed in IS 6.2.1.3

(1) The certificate number specifically assigned to the AMO;

(2) The name and location of the principal place of business of the AMO;

(3) The certification Statement of the Authority;

(4) The ratings issued to the AMO;

(5) The period of validity;

(6) The date of issue; and

(7) The signature, printed name, and title of the appropriate Authority

(c) The operations specifications will contain the following items and will be on a form and in a manner as prescribed by the Authority:

(1) The certificate number specifically assigned to the AMO;

(2) The class or limited ratings issued in detail, including specific terms, conditions, and limitations;

(3) The date issued or revised; and

(4) Signatures of the accountable manager and the Authority.

(d) An AMO may perform maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product only for which it is rated and within the specific terms, conditions, and limitations contained in its operations specifications

(e) The certificate issued to an AMO shall be available on the premises for inspection by the public and the Authority.

6.2.1.4 ADVERTISING

(a) No maintenance organization may advertise as an AMO certificated under this part until the Authority has issued an AMO certificate and associated operations specifications to that organization.

(b) No AMO may make, either orally or in writing any statement about itself that is false or is designed to mislead any person.

(c) Whenever the advertising of a maintenance organization indicates that it is certificated under this part, the advertisement shall clearly state AMO's certificate number.

6.2.1.5 APPLICATION FOR AN AMO CERTIFICATE AND/OR RATINGS

(a) The Authority will require an applicant for approval of a maintenance organization to submit the following:

(1) An application in a form and a manner as prescribed in IS 6.2.1.5;
(2) The organization's AMO Procedures Manual in duplicate;
(3) Compliance checklists;
(4) A list of the maintenance functions to be performed for the organization, under contract, by another person or organization;
(5) A list of all AMO certificates and ratings pertinent to those certificates issued to the organization by any contracting State other than Curaçao;
(6) Documentation of the organization's Quality System; and
(7) Proof of registration with the Chamber of Commerce; and
(8) Any additional information the Authority requires the organization to submit.

(b) An application for the amendment of an existing AMO certificate shall be made on a form and in a manner prescribed by the Authority. If applicable, the AMO shall submit the required amendment to the Maintenance Procedures Manual to the Authority for approval.

(c) Form issued by the Authority shall be completed by the accountable manager, or the Quality manager's in accordance with paragraph 6.2.1.5 (1)(i) of this Part.

(d) An AMO may subcontract work to non-approved maintenance organizations if the contracting AMO is (1) approved for the work to be subcontracted and has the ability to assess the competency of the subcontractor, (2) retains the responsibility for the quality control and release of subcontracted activities, and (3) there exist procedures to control subcontracted activities together with terms of reference for the personnel responsible for their management.

6.2.1.6 ISSUANCE OF AN AMO CERTIFICATE

(a) The issuance of an AMO certificate by Curaçao shall be dependent upon the maintenance organization demonstrating compliance with the requirements of this part and the relevant safety management requirements of Part 1 of these regulations.

1. AMO certificate shall be issued for the benefit of an undertaking carrying out activities relating to the airworthiness of aircraft, if and to the satisfaction of the Director General it has been demonstrated to provide sufficient guarantees for:
    a. proper performance of the work for which approval has been sought;
    b. strict compliance with the rules to be determined by the Minister for the approval of companies and with the other provisions relating to the airworthiness of aircraft, insofar as these apply to the activities concerned, and compliance with the rules to be laid down by the Minister for the recognition of undertakings and other provisions relating to the airworthiness of aircraft, insofar as they apply to the activities in question,
    c. and strict compliance with the provisions of Chapter 10 of Airworthiness Manual ICAO DOC 9760.
2. The activities referred to in the first paragraph of this subpart may include:
    a. the manufacture of materials and semi-finished products/ semi-products for use in aircraft;
    b. the manufacture, maintenance, overhaul, repair and modification of parts and equipment for use in aircraft;
    c. the inspection of parts, appliances, materials and semi-finished products/ semi-products to be used in aircraft;
    d. to supervise the activities referred to in sentence (a) and (b), which have been performed by third parties; the full or partial review/ assess all or part of airworthiness and soundness.

(b) The approval of companies established elsewhere and recognized there by the competent authority may be validated and or equated by the Director General with the recognition for the performance of activities, as referred to in the second paragraph, which, according to the recognition, may be permitted in the country of residence, provided that the contracting state of foreign company does have an ICAO effective implementation higher than 70% and is found compliant with the requirements of this Part.

(c) The Authority may issue an AMO certificate if, after investigation, it finds that the applicant

(1) Meets the applicable regulations and standards for the holder of an AMO certificate; and

(2) Is properly and adequately equipped for the performance of maintenance, overhaul, modification, repair, and inspection of an aircraft or aeronautical product for which it seeks approval;

(3) The applicant complies with the applicable AMO Certificate fee as per Fees & Charges regulation called Luchtvaart Tarieven, as amended, if applicable.

6.2.1.7 DURATION AND RENEWAL OF AN AMO CERTIFICATE

(a) An AMO certificate or any portion of an AMO certificate, issued by the Authority to an AMO located either inside or outside Curaçao is effective from the date of issue until:

(1) The last day of the 12th month after the date on which it was initially issued, subject to satisfactory compliance with the requirements of this Part; or

(2) The last day of the 24th month after the date on which it was renewed, subject to satisfactory compliance with the requirements of this Part; or

(3) The AMO surrenders the certificate to the Authority, or

(4) The Authority cancels, suspends, revokes, or otherwise terminate the certificate.

(b) The holder of an AMO certificate that has expired, has been surrendered by the AMO, or has been suspended or revoked by the Authority shall return the certificate and operations specifications to the Authority within 5 working days of expiration, surrender or receipt from the Authority of notice of suspension or revocation.

(c) An AMO that applies for a renewal of its certificate for aircraft registered in Curaçao shall submit its request for renewal no later than 90 days before the approved AMO's current certificate expires. If a request for renewal is not made within this period, the AMO shall follow the application procedures for initial issuance as prescribed by the Authority.

6.2.1.8 CONTINUED VALIDITY OF AN AMO CERTIFICATE

(a) Unless the AMO certificate has previously been cancelled, surrendered, superseded, suspended, revoked or has expired by virtue of exceeding any expiration date that may be specified in the certificate, the continued validity of the AMO certificate shall depend on;

(1) An AMO remaining in compliance with the requirements of this Part and the relevant safety management requirements of Part 1 of these regulations;

(2) The Authority being granted access to the AMO's facilities to determine continued compliance with the requirements of this part; and

(3) The payment of any charges prescribed by the Authority.

6.2.1.9 AUTHORITY TO INSPECT

(a) The Authority may, at any time, inspect an AMO on the AMO's premises to determine the organization's continued compliance with the requirements of this Part.

(b) Inspections will be conducted by the Authority at least annually.

(c) After an inspection is conducted, the AMO will be notified, in writing, of any deficiencies identified during the inspection as prescribed in IS 6.2.1.9,

(d) Inspections will also be performed on the applicant for, or the holder of an AMO certificate held outside the authorizing Contracting Authority. This inspection may be delegated to the Authority of the State where the AMO is located, provided an arrangement exists.

6.2.1.10 SUSPENSION OR REVOCATION OF AN AMO CERTIFICATE

(a) The Authority may suspend or revoke an AMO certificate if it is established that an AMO has not met, or no longer meets the requirements of this part.

6.2.1.11 CHANGES TO THE AMO AND AMO CERTIFICATE AMENDMENTS

(a) An application for amendment to an existing AMO certificate shall be made on a form and in a manner prescribed by the Authority. If applicable, the AMO shall submit the required amendment to its AMO Procedures Manual to the Authority for approval

(b) In order to enable the Authority to determine continued compliance with this Part, the approved maintenance organization shall notify it of any proposal to carry out any of the following changes, before such changes take place:

(1) The name of the organization;

(2) The location of the organization;

(3) Housing, facilities, equipment, tools, material, procedures, scope of work and certifying staff that may affect the rating(s) issued;

(4) The ratings held by the organization, whether granted by the Authority or held through an AMO certification issued by another Contracting State;

Note: See subsection 6.2.1.5(a)(5) of this part.

(5) Additional locations of the organization;

(6) The AMO Procedures Manual,

(7) The accountable manager; or

(8) The list of management personnel as described in the AMO Procedures Manual.

(c) The Authority will amend the certificate if the AMO notifies the Authority of a change in:

(1) Location or housing and facilities;

(2) Additional locations of the organization;

(3) Rating(s) issued, including deletions;

(4) The AMO Procedures Manual;

(5) The name of the organization with same ownership; or

(6) Ownership.

(d) The Authority may amend the certificate if the AMO notifies the Authority of a change in:

(1) The accountable manager; or

(2) The list of management personnel as described in the AMO Procedure Manual.

(3) Other Items in the Maintenance Procedures Manual,

(e) When the Authority issues an amendment to an AMO's certificate because of new ownership of the AMO, the Authority will assign a new certificate number to the amended certificate.

(f) The Authority may:

(1) Prescribe, in writing, the specific terms, conditions, and limitations under which the AMO shall continue to operate during any period of implementation of the changes noted in paragraph 6.2.11 (b); of this part and

(2) Hold the AMO certificate if the Authority determines that approval of amendments to the AMO certificate may be delayed; the Authority will notify the AMO, in writing, of the reasons for any such delay.

(g) If changes are made by the AMO to the items listed in paragraph .6.2.11 (b) of this part without notification to the Authority or amendment of the AMO certificate by the Authority, the AMO certificate may be suspended, or revoked, by the Authority.

6.2.1.12 AMO RATINGS AND CLASSES

(a) The Authority may issue class(es) and ratings under this Subpart:

1. Except as stated otherwise for the smallest organizations in point 12 this Part., the table referred to in point 13 provides the standard system for the approval of maintenance organization under an organization must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.

2. In addition to the table referred to in point 13, the approved maintenance organization is required to indicate its scope of work in its maintenance organization procedure manual. See also point 11.

3. Within the approval class(es) and rating(s) granted by the authority, the scope of work specified in the maintenance organization exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organizations scope of work are matching.

4. A category A class rating means that the approved maintenance organization may carry out maintenance on the aircraft and any component (including engines and/or Auxiliary Power Units (APUs), in accordance with aircraft maintenance data or, if agreed by the authority, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A-rated approved maintenance organization may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. This will be subject to a control procedure in maintenance organization's procedures manual to be approved by the authority. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

5. A category B class rating means that the approved maintenance organization may carry out maintenance on the uninstalled engine and/or APU and engine and/or APU components, in accordance with engine and/or APU maintenance data or, if agreed by the authority, in accordance with component maintenance data, only whilst such components are fitted to the engine and/or APU. Nevertheless, such B-rated approved maintenance organization may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not eligible for the provisions of this point. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organization approved with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organization exposition to be approved by the authority. The maintenance organization exposition scope of work shall reflect such activity where permitted by the authority.

6. A category C class rating means that the approved maintenance organization may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A maintenance organization approved with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance procedure manual to be approved by the authority. The maintenance procedure manual scope of work shall reflect such activity where permitted by the authority.

7. A category D class rating is a self-contained class rating not necessarily related to a specific aircraft,

engine or other component. The D1 — Non Destructive Testing (NDT) rating is only necessary for an approved maintenance organization that carries out NDT as a particular task for another organization. A maintenance organization approved with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the maintenance procedure manual containing NDT procedures, without the need for a D1 class rating.

8. In the case of maintenance organizations approved in accordance with this part, category A class ratings are subdivided into 'Base' or 'Line' maintenance. Such an organization may be approved for either 'Base' or 'Line' maintenance or both. It should be noted that a 'Line' facility located at a main base facility requires a 'Line' maintenance approval.
9. The limitation section is intended to give the competent authorities the flexibility to customize the approval to any particular organization. Ratings shall be mentioned on the approval only when appropriately limited. The table referred to in point 13 specifies the types of limitation possible. Whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organization (an example could be avionic systems installations and related maintenance). Such mention in the limitation section indicates that the maintenance organization is approved to carry out maintenance up to and including this particular type/task.
10. When reference is made to series, type and group in the limitation section of class A and B, series means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB211-524 series or Cessna 150 or Cessna 172 or Beech 55 series or continental O-200 series etc.; type means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type or Cessna 172RG type; any number of series or types may be quoted; group means for example Cessna single piston engine aircraft or Lycoming non-supercharged piston engines etc.
11. Capability list amendments shall be approved by the authority in accordance with paragraph 6.5.1.3 of CCAR Part 6.
12. A maintenance organization which employs only one person to both plan and carry out all maintenance can only hold a limited scope of approval rating. The maximum permissible limits are:

CLASS	RATING	LIMITATION
CLASS AIRCRAFT	RATING A2 AEROPLANES 5700 KG AND BELOW	PISTON ENGINE 5700 KG AND BELOW
CLASS AIRCRAFT	RATING A3 HELICOPTERS	SINGLE PISTON ENGINE 3175 KG AND BELOW
CLASS AIRCRAFT	RATING A4 AIRCRAFT OTHER THAN A1, A2 AND A3	NO LIMITATION
CLASS ENGINES	RATING B2 PISTON	LESS THAN 450 HP
CLASS COMPONENTS RATING OTHER THAN COMPLETE	C1 TO C22	AS PER CAPABILITY LIST
CLASS SPECIALISED	D1 NDT	NDT METHOD(S) TO BE SPECIFIED.

It should be noted that such an organization may be further limited by the authority in the scope of approval dependent upon the capability of the particular organization.

13. Table

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes above 5 700 kg	[Rating reserved to Maintenance Organizations approved in accordance with CCAR Part 6 [Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks] *Example: Airbus A320 Series*	[YES/NO] (*)	[YES/NO] (*)
	A2 Aeroplanes 5 700 kg and below	[Shall state aeroplane manufacturer or group or series or type and/or the maintenance tasks] *Example: DHC-6 Twin Otter Series*	[YES/NO] (*)	[YES/NO] (*)
	A3 Helicopters	[Shall state helicopter manufacturer or group or series or type and/or the maintenance task(s)] *Example: Robinson R44*	[YES/NO] (*)	[YES/NO] (*)
	A4 Aircraft other than A1, A2 and A3	[Shall state aircraft category (sailplane, balloon, airship, etc.), manufacturer or group or series or type and/or the maintenance task(s)]	[YES/NO] (*)	[YES/NO] (*)
ENGINES	B1 Turbine	[Shall state engine series or type and/or the maintenance task(s)] *Example: PT6A Series*		
	B2 Piston	[Shall state engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[Shall state engine manufacturer or series or type and/or the maintenance task(s)]		
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	[Shall state aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s).] *Example: PT6A Fuel Control*		
	C2 Auto Flight			
	C3 Comms and Nav			

CLASS	RATING	LIMITATION	BASE	LINE
	C4 Doors — Hatches			
	C5 Electrical Power & Lights			
	C6 Equipment			
	C7 Engine — APU			
	C8 Flight Controls			
	C9 Fuel			
	C10 Helicopter — Rotors			
	C11 Helicopter — Trans			
	C12 Hydraulic Power			
	C13 Indicating — recording system			
	C14 Landing			
	C15 Oxygen			
	C16 Propellers			
	C17 Pneumatic & Vacuum			
	C18 Protection ice/rain/fire			
	C19 Windows			
	C20 Structural			
	C21 Water ballast			
	C22 Propulsion Augmentation			
SPECIALISED SERVICES	D1 Non Destructive Testing	[Shall state particular NDT method(s)]		
(*) Delete as appropriate				

6.2.1.13 AMO LIMITED RATINGS

(a) Whenever the Authority finds it appropriate, it may issue a limited rating to an AMO that intends to maintains or modify only a particular type of aircraft or aeronautical product or intends to perform only specialized maintenance requiring equipment and skills not ordinarily found in an AMO. Such a rating may be limited to a specific model aircraft or aeronautical product, or to any number of products made by a particular manufacturer.

(b) Limited ratings are issued for:

(1) Aircraft of a particular make and model;

(2) Engines of a particular make and model;

(3) COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs of a particular make and model;

(4) SPECIALISED SERVICES.

(5) Any other purpose for which the Authority finds the organization's request appropriate.

(c) The Authority may issue a specialized service rating that approves an AMO to perform specific maintenance procedures or processes. The operations specifications of the AMO shall identify the specification used in performing that specialized service. The specification may be:

(1) A civil or military specification that is currently used by industry and approved by the Authority; or

(2) A specification developed by the AMO and approved by the Authority.

6.2.1.14 QUALITY SYSTEM

(a) An AMO shall establish a quality system that includes a quality assurance programme and shall designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure safe maintenance practices and airworthy aircraft and aeronautical products.

(b) The quality system, and the quality manager, shall be acceptable to the Authority.

(c) The quality system shall include a procedure to initially qualify and periodically perform audits on persons performing work on behalf of the AMO.

(d) The quality system shall include a feedback system to the designated management person or group of persons directly responsible for the quality system and ultimately to the accountable manager who ensures, as necessary, that proper and timely corrective action is taken in response to reports resulting from the independent audits.

(e) The quality system shall be sufficient to review all maintenance procedures, as described in the AMO Procedures Manual and the operator's MCM, in accordance with an approved quality assurance programme once every 12-month period.

(f) The quality system shall indicate when audits are scheduled and when audits are completed and shall establish a system of audit reports that may be reviewed by the Authority on request. The audit system shall clearly establish a means by which audit reports containing observations about non-compliance or poor maintenance practices are communicated to the accountable manager.

(g) If the AMO is a small organization, the independent audit part of the quality system may be contracted to another organization approved under this part or to a person with appropriate technical knowledge and proven satisfactory audit experience.

(h) Where the AMO is part of an air operator certificated under Part 9 of these regulations, the operator's quality system may be combined with the requirements of an AMO and submitted for acceptance to the Authority.

(i) Each AMO shall describe its quality system in relevant documentation as prescribed in IS: 6.2.1.14.

6.2.1.15 LOCATION OF THE AMO

(b) Principal place of business. An applicant for, or the holder of, an AMO certificate issued under this Part shall establish and maintain a principal place of business office that is physically located at the address shown on its certificate.

(c) Additional fixed locations. An AMO may have additional fixed locations that may be approved by the Authority without the Authority certificating each facility as a stand-alone AMO, provided that:

(1) All of the facilities are localized and within a defined area, and

(2) All locations operate under the approval of the AMO certificate and operations specifications.

(d) Foreign locations of AMOs. An AMO may be located in a country outside Curaçao and shall be subject to all the applicable requirements of this Part.

6.2.1.16 CONDITIONS FOR THE USE OF STAFF NOT QUALIFIED IN ACCORDANCE WITH PART-2 AND REFERRED TO PARAGRAPH 6.4.1.1(l)

1. Certifying staff in compliance with all the following conditions are deemed to meet the intent of paragraphs 6.4.1.1(l)(1) and (2):

(a) The person shall hold a licence or a certifying staff authorization issued under national regulations in full compliance with ICAO Annex 1.

(b) The scope of work of the person shall not exceed the scope of work defined by the national licence or the certifying staff authorization, whatever is the most restrictive.

(c) The person shall demonstrate he/she received the training on human factors and aviation legislation referred to in modules 9 and 10 of Part 2, IS 2.6.1.7, paragraph 2.

(d) The person shall demonstrate 5 years continuing airworthiness experience for line maintenance certifying staff and 8 years for base maintenance certifying staff. However, those persons whose authorized tasks do not exceed those of a Part-2 category A certifying staff, need to demonstrate 3 years' maintenance experience only.

(e) Line maintenance certifying staff and base maintenance support staff shall demonstrate he/she received type training and passed examination at the category B1, B2 or B3 level, as applicable, referred to in Part 2, IS 2.6.1.11 for each aircraft type in the scope of work referred to in paragraph (b). Those persons whose scope of work does not exceed those of a category A certifying staff may however receive task training in lieu of a complete type training.

(f) Base maintenance certifying staff shall demonstrate he/she received type training and passed examination at the category C level referred to in Part 2, IS 2.6.1.11 for each aircraft type in the scope of work referred to paragraph (b), except that for the first aircraft type, training and examination shall be at the category B1, B2 or B3 level of Part 2, IS 2.6.1.11.

6.3 HOUSING, FACILITIES, EQUIPMENT, TOOLS, MATERIALS AND TECHNICAL DATA

6.3.1.1 General

(a) An AMO shall provide, housing, facilities, equipment, tools, materials, and technical data in a quantity and quality that meet the requirements for the issuance of the certificate and ratings that the AMO holds.

6.3.1.2 HOUSING AND FACILITIES

a. Housing for the facilities, equipment, materials, and personnel shall be provided appropriate for all planned work ensuring, in particular, protection from weather.

b. All work environments shall be appropriate for the task performed and shall not impair the effectiveness of personnel.

c. Office accommodations shall be appropriate for the management of planned work including, in particular, the management of quality, planning, and records.

d. Specialized workshops and bays shall be segregated, as appropriate, to insure that environmental or work area contamination is unlikely to occur.

e. Storage facilities shall be provided for parts, test equipment, tools, and material.

f. Storage conditions shall provide security for serviceable parts, and segregation of serviceable from unserviceable parts, and prevent deterioration of and damage to stored items.

g. An AMO with an airframe rating shall provide suitable permanent housing to enclose the largest type and model of aircraft listed on its operations specifications.

h. An AMO may perform continuing airworthiness, overhaul, modification, repair, and inspection on aeronautical products outside of its housing if it provides suitable facilities that are acceptable to the Authority.

i. Detailed requirements pertaining to housing and facilities are prescribed in IS 6.3.1.2.

6.3.1.3 **Equipment, Tools, Materials, and Technical Data**

a. An AMO shall have available the necessary equipment, tools, materials, and technical data l to perform the approved scope of work and these items shall be under full control of the AMO. The availability of equipment and tools means permanent availability except in the case of any equipment or tool that is so rarely needed that its permanent availability is not necessary.

b. The Authority may exempt an AMO from possessing specific equipment and tools for continuing airworthiness or modifications of an aircraft or aeronautical product specified in the AMO's approval, if these items can be acquired temporarily, by prior arrangement, and are under full control of the AMO when needed to perform required continuing airworthiness or modifications.

c. The AMO shall use the equipment, tools, and materials that are recommended by the manufacturer of the aircraft or aeronautical product or are at least equivalent to those recommended by the manufacturer and are acceptable to the Authority.

d. The AMO shall control all applicable tools, including personal hand tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness.

e. The AMO shall ensure that all applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness are calibrated to a standard acceptable to the Authority and are traceable to the National Institute of Standards and Technology (NIST) or equivalent.

f. The AMO shall keep all records of calibrations and the standards used for calibration.

g. Detailed requirements pertaining to tools, equipment, and test equipment are prescribed in IS 6.3.1.3.

6.4 ADMINISTRATION

6.4.1.1 PERSONNEL

(a) An AMO shall nominate an accountable manager who, irrespective of other functions, is accountable on behalf of the organization.

(b) The accountable manager shall nominate a person or group of persons, acceptable to the Authority, whose responsibilities shall include ensuring that the AMO is in compliance with the requirements of this part.

(1) The person or persons nominated as manager shall represent the continuing airworthiness management structure of the AMO, and be responsible for all functions specified in Part 6.

(2) Nominated managers shall be directly responsible to an accountable manager who shall be acceptable to the Authority.

(c) An AMO shall employ sufficient personnel to plan, perform, supervise, inspect, and approve for return to service the continuing airworthiness work to be performed.

(d) An AMO shall establish the competence of continuing airworthiness personnel in accordance with a procedure and to a level acceptable to the Authority.

(e) Each supervisor in the AMO shall hold an AMT licence issued in accordance with Part 2 of these regulations.

(f) The person signing an approval for return to service shall be qualified in accordance with Part 2 of these regulations, as appropriate to the work performed and shall be acceptable to the Authority.

(g) Maintenance personnel and certifying shall meet the qualification requirements and shall receive initial, recurrent, and specialized training appropriate to their assigned tasks and responsibilities, in accordance with a training programme approved by the Authority. The training programme established by the AMO shall include training in knowledge and skills related to human factors and human performance, including co-ordination with other maintenance personnel, certifying staff and flight crew. For continuation training refer to IS 6.4.1.1.

(h) Any organization maintaining aircraft, except where stated otherwise in paragraph (l) shall in the case of aircraft line maintenance, have appropriate aircraft rated certifying staff qualified as category B1, B2, B3, as appropriate, in accordance with Part 2, subsection 2.6.1.6 and subsection 6.4.1.7
In addition, such organizations may also use appropriately task trained certifying staff holding the privileges described in Part 2, paragraphs 2.6.1.6(a)(1) and 2.6.1.6(a)(3)(ii) and qualified in accordance with subpart 2.6 of Part-2 and subsection 6.4.1.7 to carry out minor scheduled line maintenance and simple defect rectification. The availability of such certifying staff shall not replace the need for category B1, B2, B3 certifying staff, as appropriate

(i) Any organization maintaining aircraft, except where stated otherwise in paragraph (l) shall:

1. In the case of base maintenance of large aircraft, have appropriate aircraft type rated certifying staff qualified as category C in accordance with Part-2, subpart 2.6 and subsection 6.4.1.7. In addition, the organization shall have sufficient aircraft type rated staff qualified as category B1, B2 as appropriate in accordance with Part-2, subpart 2.6 and subsection 6.4.1.7 to support the category C certifying staff:

(i) B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service.

(ii) The organization shall maintain a register of any such B1 and B2 support staff.

(iii) The category C certifying staff shall ensure that compliance with paragraph (i) has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit.

2. In the case of base maintenance of aircraft other than large aircraft have either:

(i) appropriate aircraft rated certifying staff qualified as category B1, B2, B3, as appropriate, in accordance with Part-2 and subsection 6.4.1.7; or

(ii) appropriate aircraft rated certifying staff qualified in category C assisted by support staff as specified in paragraph 6.4.1.7(a)(i).

(j) Component certifying staff shall comply with Part-2.

(k) By derogation to paragraphs (i) and (j), in relation to the obligation to comply with Part-2, the organization may use certifying staff qualified in accordance with the following provisions:

(1) For organization facilities located outside Curaçao certifying staff may be qualified in accordance with the national aviation regulations of the State in which the organization facility is registered subject to the conditions specified in subsection 6.2.1.16.

(2) For line maintenance carried out at a line station of an organization which is located outside Curaçao, the certifying staff may be qualified in accordance with the national aviation regulations of the State in which the line station is based, subject to the conditions specified in paragraph 6.2.1.16

(3) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organization contracted to provide maintenance support may issue a one-off certification authorization:

1. to one of its employees holding equivalent type authorizations on aircraft of similar technology, construction and systems; or

2. to any person with not less than five years' maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organization appropriately approved under this Part at that location and the contracted organization obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this subparagraph shall be reported to the Authority within three days of the issuance of such certification authorization. The organization issuing the one-off authorization shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organization.

(l) Detailed personnel requirements are prescribed in IS 6.4.1.1.

6.4.1.2 INDOCTRINATION, INITIAL, RECURRENT, SPECIALISED AND REMEDIAL TRAINING

a. An AMO shall have an employee training programme approved by the Authority that consists of indoctrination, initial, recurrent training, specialized and remedial training.

b. An AMO shall develop and update its training programme based on the continuing airworthiness tasks associated with its scope of operating authority and capabilities.

c. An AMO shall ensure that each employee assigned to perform continuing airworthiness, overhaul, modification, repair, or inspections is capable of performing the assigned tasks.

d. An AMO shall submit revisions of its training programme to the Authority for approval.

e. An AMO shall document, on a form and in a manner acceptable to the Authority, the individual employee training required under this subsection. These training records shall be retained for a minimum of two years.

f. The expiration date assigned to an initially approved training programme shall not exceed 24 months from the date of initial approval

g. An AMO's training programme shall meet the detailed requirements prescribed in IS: 6.4.1.2

6.4.1.3 DANGEROUS GOODS TRAINING PROGRAMME

a. An AMO shall have a dangerous goods training programme approved by the Authority for its employees, whether full time, part time, or temporary or contracted, who are engaged in.

(1) The loading, unloading or handling of dangerous goods;

(2) The design, manufacture, fabrication, inspection, marking, maintenance, reconditioning, repairing or testing of a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting dangerous goods;

(3) The preparation of dangerous goods for transport;

(4) Activities for ensuring the safety of transporting dangerous goods;

(5) The operation of a vehicle used to transport dangerous goods, or

(6) The supervision of any of the above listed items.

b. No person shall perform or directly supervise a maintenance function listed in paragraph 6.4.1.3(a) of this part unless that person has received the approved dangerous goods training.

c. An AMO shall ensure that its dangerous goods training:

(1) Ensures that each person performing or directly supervising any of the maintenance functions specified in paragraph 6.4.1.3(a) of this part is trained to comply with all applicable procedures; and

(2) Enables the trained person to recognize items that contain, or may contain, dangerous goods regulated under these regulations.

d. An AMO's dangerous goods training programme shall be approved by the Authority and shall contain the items prescribed in IS: 6.4.1.3.

e. An AMO shall document, on a form in a manner acceptable to the Authority, the individual employee

training required under this subsection. These training records shall be retained by the AMO for a minimum of two years.

6.4.1.4 Rest and Duty Limitations for Persons Performing Maintenance Functions in an AMO

a. No person may assign, nor shall any person perform maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product, unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.

b. No person may be scheduled to perform maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product for more than 12 consecutive hours of duty.

c. In situations involving unscheduled aircraft or aeronautical product unserviceability the AMO may allow persons performing maintenance, overhaul, modification, repair, and inspection on an aircraft or aeronautical product to continue on duty for:

(1) Up to 16 consecutive hours; or

(2) 20 hours in 24 consecutive hours.

d. Following an unscheduled duty period, the AMO shall ensure that each person performing maintenance, overhaul, modification, repair, or inspection on an aircraft or aeronautical product during that unscheduled duty period shall have a mandatory rest period of 10 hours.

e. An AMO shall relieve the person performing maintenance, overhaul, modification, repair, or inspection from all duties for 24 consecutive hours during any 7 consecutive day's period.

6.4.1.5 Records of Management, Supervisory, Inspection and Certifying Staff

(a) An AMO shall maintain a roster of all management and supervisory personnel and and certifying staff which shall include details of the scope of their authorization.

(b) An AMO shall notify certifying staff, in writing, of the scope of their authorization.

(1) The authorization document shall be in a style that makes its scope clear to certifying staff and any authorized person that may be required to examine the document. Where codes are used to define scope, an interpretation document shall be readily available.

(2) Certifying staff shall not be required to carry the authorization document at all times but shall produce it within a reasonable time of a request from an authorized person.

(c) Detailed requirements pertaining to records of management, supervisory, inspection and certifying staff are provided in IS 6.4.1.5.

6.4.1.6 SAFETY MANAGEMENT

(a) An AMO shall implement an SMS system acceptable to the Authority as prescribed in Part 1, Subpart 1.6 of these regulations. Further guidance is contained in the Safety Management Manual (SMM) (ICAO Doc 9859).

6.4.1.7 CERTIFYING STAFF AND SUPPORT STAFF

(a) In addition to the appropriate requirements of paragraphs 6.4.1.1(i) and (j), the organization shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft

and/or components to be maintained together with the associated organization procedures. In the case of certifying staff, this shall be accomplished before the issue or re-issue of the certification authorization:

(i) "Support staff" means those staff holding a Part-2, Subpart 2.6 aircraft maintenance licence in category B1, B2 and/or B3 with the appropriate aircraft ratings, working in a base maintenance environment while not necessarily holding certification privileges.

(ii) "Relevant aircraft and/or components", means those aircraft or components specified the particular certification authorization.

(iii) "Certification authorization" means the authorization issued to certifying staff by the organization and which specifies the fact that they may sign certificates of release to service within the limitations stated in such authorization on behalf of the approved organization.

(b) Excepting those cases listed in paragraph 6.4.1.1(l) and (Part-2), paragraph 2.6.1.6(a)3(ii) the organization may only issue a certification authorization to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance licence as required by Part-2, Subpart 2.6 subject to the licence remaining valid throughout the validity period of the authorization and the certifying staff remaining in compliance with Part-2, Subpart 2.6.

(c) The organization shall ensure that all certifying staff and support staff are involved in at least 6 months of relevant aircraft or component maintenance experience in any consecutive 2-year period.

For the purpose of this paragraph "involved in actual relevant aircraft or component maintenance" means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorization and/or has actually carried out maintenance on at least some of the aircraft type or aircraft group systems specified in the particular certification authorization.

(d) The organization shall ensure that all certifying staff and support staff receive sufficient continuation training in each two-year period to ensure that such staff have up-to-date knowledge of relevant technology and organization procedures.

(e) The organization shall establish a programme for continuation training for certifying staff and support staff, including a procedure to ensure compliance with the relevant paragraphs of IS.6.4.1.1. as the basis for issuing certification authorizations under this Part to certifying staff, and a procedure to ensure compliance with Part-2, Subpart 2.6.

(f) Except where any of the unforeseen cases of paragraph 6.4.1.1(l) apply, the organization shall assess all prospective certifying staff for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure as specified in the procedure manual prior to the issue or re-issue of a certification authorization under this Part.

(g) When the conditions of paragraphs (a), (b), (d), (f) and, where applicable, paragraph (c) have been fulfilled by the certifying staff, the organization shall issue a certification authorization that clearly specifies the scope and limits of such authorization. Continued validity of the certification authorization is dependent upon continued compliance with paragraphs (a), (b), (d), and where applicable, paragraph (c).

(h) The certification authorization must be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorization. Where codes are used to define scope, the organization shall make a code translation readily available. 'Authorized person' means the officials of the Authority who has responsibility for the oversight of the maintained aircraft or component.

(i) The person responsible for the quality system shall also remain responsible on behalf of the organization for issuing certification authorizations to certifying staff. Such person may nominate other persons to actually issue or revoke the certification authorizations in accordance with a procedure as specified in the procedure manual.

(j) The organization shall maintain a record of all certifying staff and support staff, which shall contain:

1. the details of any aircraft maintenance licence held under Part-2, Subpart 2.6 and

2. all relevant training completed; and

3. the scope of the certification authorizations issued, where relevant; and

4. particulars of staff with limited or one-off certification authorizations.

The organization shall retain the records for at least three years after the staff referred to in this paragraph have ceased employment with the organization or as soon as the authorization has been withdrawn. In addition, upon request, the maintenance organization shall furnish the staff referred to in this paragraph with a copy of their personal records on leaving the organization.

The staff referred to in this paragraph shall be given access on request to their personal records as detailed above.

(k) The organization shall provide certifying staff with a copy of their certification authorization in either a documented or electronic format.

(l) Certifying staff shall produce their certification authorization to any authorized person within 24 hours.

(m) The minimum age for certifying staff and support staff is 21 years.

(n) The holder of a category A aircraft maintenance license may only exercise certification privileges on a specific aircraft type following the satisfactory completion of the relevant category A aircraft task training carried out by an organization appropriately approved in accordance with Part 3. This training shall include practical hands on training and theoretical training as appropriate for each task authorized. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment carried out by the organization.

(o) The holder of a category B2 aircraft maintenance licence may only exercise the certification privileges described in paragraph 2.6.1.6(a)(3)(ii) of Part-2 following the satisfactory completion of (i) the relevant category A aircraft task training and (ii) 6 months of documented practical experience covering the scope of the authorization that will be issued. The task training shall include practical hands on training and theoretical training as appropriate for each task authorized. Satisfactory completion of training shall be demonstrated by an examination or by workplace assessment. Task training and examination/assessment shall be carried out by the maintenance organization issuing the certifying staff authorization. The practical experience shall be also obtained within such maintenance organization.

6.5 AMO OPERATING RULES

6.5.1.1 AMO PROCEDURES MANUAL

(a) The definition of AMO Procedures Manual is the same as "maintenance organization's procedures manual" as defined in Part 1 of these regulations.

(b) The purpose of the AMO Procedures Manual is to set forth the guidance, instructions, and procedures of the AMO. Compliance with the contents will assure compliance with the requirements of this part, which is a prerequisite to obtaining and retaining an AMO certificate.

(c) Each AMO shall have an AMO Procedures Manual, which may be issued in separate parts. The manual shall be amended as necessary to keep the information contained therein up-to-date.

(d) The AMO Procedures Manual shall:

(1) Provide clear guidance to personnel on how the functions are to be performed under the approval issued by the Authority;

(2) Explain how personnel are managed and describe their duties and responsibilities and how compliance with the relevant continuing airworthiness requirements is achieved; and

(3) Include a statement of the organization's policies and objectives.

(e) If the AMO is part of an air operator certificated under Part 9 of these regulation, the AMO procedures manual and the operator's MCM may be combined.

(f) The AMO Procedures Manual and any subsequent amendments to the manual shall be approved by the Authority prior to use.

(g) An AMO shall promptly furnish copies of all amendments to the AMO Procedures Manual to all organizations or persons to whom the manual has been issued.

(h) The AMO Procedures Manual and any other manual it identifies shall:

(1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(2) Be in a form that is easy to revise and contain a system that allows personnel to determine current revision status;

(3) Have the date of the last revision printed on each page containing the revision;

(4) Not be contrary to any applicable Curaçao regulation or the operations specifications issued to the organization; and

(5) Include a references to appropriate aviation regulations.

(g) Detailed requirements pertaining to the AMO Procedures Manual are prescribed in IS 6.5.1.1.

6.5.1.2 MAINTENANCE PROCEDURES AND THE QUALITY ASSURANCE PROGRAMME

(a) An AMO shall establish procedures, acceptable to the Authority, that ensure safe maintenance practices and compliance with all relevant requirements of this Part.

(b) An AMO shall ensure compliance with paragraph 6.5.1.2(a) of this subsection by either:

(1) Establishing an independent quality assurance programme to monitor compliance with and the adequacy of the procedures; or

(2) Providing a system of inspection to ensure that all maintenance is properly performed.

(c) The independent quality assurance programme of an AMO shall include the audit procedures contained in the AMO Procedures Manual and prescribed in paragraph 4.14 of IS 6.5.1.1.

6.5.1.3 CAPABILITY LIST

(a) An AMO shall prepare and retain a current capability list approved by the Authority.
(b) An AMO shall not perform, overhaul, modification, repair, or inspection on an aeronautical product until the product has been listed on the capability list in accordance with this part.
(c) The capability list shall identify each aircraft and aeronautical product by make and model or other nomenclature designated by the manufacturer and shall be available in a form and manner acceptable to the Authority.
(d) An AMO shall include an aircraft and aeronautical product on the capability list only if the aircraft or aeronautical product is within the scope of the ratings and classes of the AMO certificate and only after an AMO has performed a self-evaluation in accordance with procedures in its AMO Procedures Manual.
(e) An AMO shall perform the self-evaluation to determine that the organization has all the housing, facilities, equipment, tools, materials, technical data, processes, and trained personnel in place to perform the work on the aircraft or aeronautical product as required by this part. If an AMO makes that determination, it shall list the aircraft or aeronautical product on the capability list
(f) Documentation of the self-evaluation described in paragraph 6.5.1.3(e) of this subsection shall be signed by the organization's accountable manager and shall be retained on file by the AMO.
(g) Upon listing an additional aircraft or aeronautical product on its capability list, an AMO shall provide a copy of the revised list to the Authority having jurisdiction over the AMO.
(h) An AMO shall make the capability list(s) available on the premises for inspection by the public and the Authority.
(i) Documentation of the self-evaluation shall be available on the premises for inspection by the Authority.
(j) The AMO shall retain the capability list(s) and self-evaluation(s) for two years from the date accepted by the accountable manager.

6.5.1.4 CONTRACT MAINTENANCE

(a) An AMO shall be approved for the work that is to be contracted and shall have the capability to assess the competence of the contractor.

(b) An AMO may contract a maintenance function pertaining to an aeronautical product to an outside source provided:

    (1) The Authority has approved the maintenance function to be contracted to the outside source; and

    (2) The AMO maintains and makes available to the Authority in a form and manner acceptable to the Authority, the following information:

        (i) The maintenance functions contracted to each outside source, and

        (ii) The name of each outside source to whom the AMO contracts maintenance functions and the type of certificate and ratings, if any, held by each source.

(c) An AMO may contract a maintenance function pertaining to an aeronautical product to a unlicensed person provided:

    (1) The unlicensed person follows a quality control system equivalent to the system followed by the AMO;

    (2) An AMO remains directly in charge of the work performed by the unlicensed person; and

(3) An AMO verifies, by test and/or inspection, that the work has been performed satisfactorily by the unlicensed person and that the aeronautical product is airworthy before approving it for return to service.

(d) Before approving an aeronautical product for return to service following contract maintenance, overhaul, modification, or repair, the AMO shall verify by test and/or inspection that the work has been performed satisfactorily and in accordance with approved methods.

(e) If an AMO performs maintenance functions for another AMO within its own approval scope this is not considered to be subcontracting for the purpose of this subsection.

(f) A list of contractors used by the AMO may be included in the AMO Procedures Manual or in a separate document.

6.5.1.5 PRIVILEGES OF THE AMO

(a) The AMO shall perform the following tasks as permitted by these regulations and in accordance with the AMO Procedures Manual:

(1) Maintain or modify any aircraft or aeronautical product for which it is rated at the location identified in the AMO's approval;

(2) Maintain any aircraft or aeronautical product for which it is rated at any location subject to the need for such maintenance arising from unserviceability of the aircraft or aeronautical product;

(3) Perform the activities in support of a specific air operator where that the operator has requested the services of the AMO at locations other than the location identified on the AMO certificate and the AMO is has been rated to maintain the aircraft of that specific operator at the requested location in the AMO operations specifications approved by the Authority; and

(4) Issue an approval for return to service with respect to paragraphs 6.5.1.5 (a) (1), (2), and (3) of this subsection upon completion of maintenance in accordance with limitations applicable to the AMO.

(b) The AMO may maintain or modify any aircraft or aeronautical product for which it is rated at a place other than the AMO, if:

(1) The task will be performed in the same manner as when performed at the AMO and in accordance with this Subpart;

(2) All necessary housing, facilities, equipment, tools, material, approved and technical data, and certifying staff are available at the place where the work is to be performed; and

(3) The AMO Procedures Manual sets forth approved procedures governing work to be performed at a place other than the AMO.

(c) The AMO may contract out maintenance, overhaul, modifications, repairs, and inspections, other than a complete type certificated product, in accordance with 6.5.1.4 of this part

6.5.1.6 LIMITATIONS OF THE AMO

(a) The AMO shall maintain or modify an aircraft or aeronautical product for which it is approved only when all necessary housing, facilities, equipment, tools, material, approved technical data and certifying staff

are available.

(b) An AMO shall not contract out the maintenance, overhaul, modification, repair, or inspection of a complete type-certificated product.

(c) An AMO shall not provide an approval for return to service of an aircraft or aeronautical product following contract maintenance, overhaul, modification, repair, or inspection without verifying by test or inspection that the work has been performed satisfactorily and in accordance with approved methods.

6.5.1.7 APPROVAL FOR RETURN TO SERVICE OF AN AIRCRAFT OR AERONAUTICAL PRODUCT

(a) An approval for return to service of an aircraft shall be made by appropriately authorized certifying staff when they are satisfied that all required maintenance of the aircraft has been properly performed by the AMO in accordance with the AMO Procedures Manual.

(b) An approval for return to service shall be required at the completion of any maintenance on an aeronautical product or assembly when off the aircraft.

(c) An approval for return to service shall be used for the return of an aircraft or aeronautical product or assembly and shall adhere to the following items.

(1) An approval for return to service shall contain the following statement: “Certifies that the work specified was performed in accordance with current regulations and in respect to that work the aircraft or aeronautical product is considered approved for return to service.”

(2) An approval for return to service shall reference the data specified in the manufacturer's maintenance instructions or instructions for continuing airworthiness.

(3) Where instructions include a requirement to insure that a dimension or test figure is within a specific tolerance as opposed to a general tolerance, the dimension or test figure shall be recorded. It is not sufficient to state that the dimension or the test figure is within tolerance.

(4) The date such maintenance was performed shall include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.

(5) When extensive maintenance has been performed, it shall be acceptable for the approval for return to service to indicate the maintenance as long as there is a cross-reference to the continuing airworthiness record containing full details of the maintenance performed. Dimensional information shall be retained in the continuing airworthiness record.

(6) The person issuing the approval for return to service shall use a full signature and preferably a certification stamp except in a case in which a computer return to service system is used. In this latter case, the Authority will need to be satisfied that only the particular person can electronically issue the approval for return to service.

(7) An aeronautical product that has been maintained off the aircraft requires the issue of an approval for return to service using a CCAA Form 1 for such maintenance and another approval of return to service of the aircraft in regard to maintenance being properly accomplished on the aircraft. The return to service of the aircraft shall be made by the AMO in the aircraft technical log continuing airworthiness records section

(8) When an aeronautical product is returned to service, the AMO shall complete a (CCAA Form 1) on a form and in a manner as prescribed in IS 6.5.1.7. can be obtained at the CCAA.

6.5.1.8 CONTINUING AIRWORTHINESS RECORDS

(a) The AMO shall record, on a form and in a manner acceptable to the Authority, all details for maintenance work performed.

(b) The AMO shall provide a copy of each approval for return to service to the aircraft operator, together with a copy of any specific airworthiness data used for repairs or modifications performed.

(c) The AMO shall retain a copy of all detailed continuing airworthiness records and any associated airworthiness data for two years from the date the aircraft or aeronautical product to which the work relates was returned to service from the AMO.

(d) Records kept in accordance with subsection6.5.1.8 shall be maintained in a form and format that ensures readability, security and integrity of the records at all times.

(e) Each person who maintains, overhauls, modifies, repairs, or inspects an aircraft or aeronautical product shall make an entry in the continuing airworthiness records of that equipment including:

(1) A description and reference to data acceptable to the Authority of work performed.

(2) The date of completion of the work performed.

(3) The name of the person performing the work if other than the person specified in this subsection.

(4) If the work performed on the aircraft or aeronautical product has been performed satisfactorily, the authorized signature, the AMO certificate number, and the type of licence or certificate held by the person approving the work.

(5) The authorized signature, the AMO certificate number, and the type of licence held by the person approving or disapproving for return to service the aircraft, or aeronautical product.

(6) The signature constitutes the approval for return to service only for the work performed.

(f) In addition to the entry required by paragraph 6.5.1.8(e) of this subsection, each person performing a major repairs or major modification shall record such work on a form, and shall dispose of the form in the manner prescribed by IS 5.6.1.1(B) of these regulations.

(g) No person shall describe in any required maintenance entry or form an aircraft or aeronautical product as being overhauled unless:

(1) Using methods, techniques, and practices acceptable to the Authority, it has been disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled; and

(2) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the TC, the STC, or a material, part, process, or appliance approval under a TSO.

(h) No person may describe in any required maintenance entry or form, an aircraft or other aeronautical product as being rebuilt unless it has been:

(1) Disassembled, cleaned, and inspected as permitted;

(2) Repaired as necessary; and

(3) Reassembled and tested to the same tolerances and limits as a new item, using either new parts or used parts that either conform to new part tolerances and limits, or to approved oversized or undersized dimensions.

(4) No person may approve for return to service any aircraft or aeronautical product that has undergone repair or modification unless:

(5) The appropriate continuing airworthiness entry has been made; and

(6) The repair or modification form authorized by or furnished by the Authority has been executed in a manner prescribed by the Authority;

(i) If a repair or modification results in any change in the aircraft operating limitations or flight data contained in the manufacturer's AFM, those operating limitations or flight data shall be appropriately revised and set forth as prescribed by the Authority.

(j) ENTRIES FOR INSPECTIONS. The person approving or disapproving for return to service an aircraft after any inspection performed in accordance with this regulation shall make, in the continuing airworthiness record of that equipment, an entry containing the following information:

(1) The type of inspection and a brief description of the extent of the inspection;

(2) The date of the inspection and aircraft total time in service;

(3) The authorized signature, the AMO certificate number, and the type of licence held by the person approving or disapproving for return to service the aircraft, or aeronautical product, or portions thereof;

(4) If the aircraft is found to be airworthy and approved for return to service, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with [TYPE] inspection and was determined to be in airworthy condition;

(5) If the aircraft is not approved for return to service because of needed maintenance, or non-compliance with the applicable specifications, ADs, or other approved data, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with TYPE] inspection and a list of discrepancies and unairworthy items dated [MM/DD/YYYY] has been provided for the aircraft owner or operator; and

(6) If an inspection is conducted under an inspection programme provided for in this part, the entry shall identify the inspection programme accomplished, and shall contains a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme.

(k) Listing of discrepancies. If the person performing any inspection required by this part finds that the aircraft is not airworthy or does not meet the applicable type certificate data sheet, ADs, or other approved data upon which its airworthiness depends, that person shall give the owner or lessee a signed and dated list of those discrepancies.

6.5.1.9 AIRWORTHINESS - DATA INSTRUCTIONS FOR CONTINUING AIRWORTHINESS

(a) The AMO shall be in receipt of all airworthiness data appropriate to support the work performed from the Authority, the aircraft or aeronautical product design organization, and any other approved design organization in the State of Manufacture or State of Design, as appropriate.

(b) The Authority may classify data from another authority or organization as mandatory and may require the AMO to hold such data.

(c) Where the AMO revises airworthiness data specified in paragraph 6.5.1.9 (a) of this subsection to a format or presentation more useful for its maintenance activities, the AMO shall submit to the Authority an amendment to its AMO Procedures Manual for any such proposed revisions for acceptance by the Authority.

(d) All airworthiness data used by the AMO shall be kept current and made available to all personnel who require access to that data to perform their duties.

(e) Detailed requirements concerning airworthiness data are prescribed in IS 6.5.1.9.

6.5.1.10 REPORTING OF UNAIRWORTHY CONDITIONS

(a) The AMO shall report to the Authority and the aircraft design organization of the State of Design any identified fault, malfunction, defect, or other occurrence that could present a serious hazard to the aircraft.

(b) Reports shall be made in a form and manner prescribed by the Authority and shall contain all information about the condition known to the AMO. Each report shall contain at least the following items:

(1) The aircraft registration number;

(2) The type, make and model of the aeronautical product;

(3) The date of the discovery of the fault, malfunction, defect, or other occurrence;

(4) The time elapsed since the last overhaul, if applicable;

(5) The nature of the fault, malfunction, defect, or other occurrence;

(6) The apparent cause of the fault, malfunction, defect, or other occurrence; and

(7) Other pertinent information that is necessary for more complete identification, determination of seriousness, or corrective action.

(c) Where the AMO is contracted by an AOC holder to carry out maintenance functions, that AMO shall report to the holder any fault, malfunction, defect, or other occurrence affecting the continuing airworthiness of the aircraft or other aeronautical product.

(d) Reports shall be made as soon as practicable, but in any case within three days of the AMO identifying the fault, malfunction, defect, or other occurrence to which the report relates.

6.5.1.11 AMO PERFORMANCE STANDARDS

(a) An AMO that performs any maintenance, overhaul, modification, repair, or inspection for an air operator that is certificated under Part 9 of these regulations, has an approved maintenance programme under 9.5.1.12, and has an approved reliability programme under 9.4.1.13 shall perform that work in accordance with the AOC holder's manuals.

(b) Except as provided in paragraph 6.5.1.11(a) of this subsection, each AMO shall perform its maintenance functions in accordance with the applicable requirements of Part 5 of these regulations.

(c) Each AMO shall maintain, in current condition, all manufacturer's service manuals, instructions, and SBs that relate to the aeronautical product it maintains or modifies.

(d) In addition, each AMO with an avionics rating shall comply with those requirements of Part 5 of

these regulations that apply to electronic systems and shall use materials that conform to approved specifications for equipment appropriate to its rating. It shall use test apparatus, shop equipment, performance standards, test methods, modifications, and calibrations that conform to the manufacturer's specifications or instructions, approved specifications, and if not otherwise specified, to accepted safe practices of the aircraft avionics industry.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 6 — IMPLEMENTING STANDARDS

PART 6 IMPLEMENTING STANDARDS

IS: 6.2.1.3 AMO CERTIFICATE

FORM: CCAA-AMO-02

Page 1 of 1

Curaçao Civil Aviation Authority

MAINTENANCE ORGANIZATION CERTIFICATE

AMO certificate number: …….

Pursuant to CCAR Part 6 (write the complete regulation name PB……. and subject to the conditions specified below, the Curaçao Civil Aviation Authority hereby certifies:

[COMPANY NAME AND ADDRESS]

as a maintenance organization in compliance to CCAR Part 6 (write the complete regulation name PB, approved to maintain the products, parts and appliances listed in the attached terms of approval and issue related certificates of release to service using the above references As specified CCAR Part 6 (write the complete regulation name PB.. for those aircraft listed in the attached terms of approval.

CONDITIONS:

1. This certificate is limited to what is specified in the scope of work section of the approved maintenance organization procedure manual as referred to in subsection 6.5.1.1 of CCAR Part 6; and
2. This certificate requires compliance with the procedures specified in the approved maintenance organization procedure manual; and
3. This certificate is valid whilst the approved maintenance organization remains in compliance with CCAR Part 6.
4. Subject to compliance with the foregoing conditions, this certificate shall remain valid until expiration date as specified on the certificate unless the certificate has been surrendered, superseded, suspended or revoked before that date.

Date of original issue: .....

Date of this revision: .....

Expire date:……

Revision No: ……

Signed:
For the Curaçao Civil Aviation Authority:

Form: CCAA-AMO-02

MAINTENANCE ORGANISATION TERMS OF APPROVAL

Reference: AMO certificate number……..

Organisation: [COMPANY NAME AND ADDRESS]

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT (**)	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(****)	[YES/NO] (**)	[YES/NO] (**)
ENGINES (**)	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs (**)	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
SPECIALISED SERVICES (**)	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)
	(***)	(***)	[YES/NO] (**)	[YES/NO] (**)

These terms of approval are limited to the products, parts and appliances and to the activities specified in the scope of work section of the approved maintenance organization procedure manual.
Maintenance organization procedure manual reference:
……

Date of original issue: ……

Date of last revision approved: …… Revision No: ……

Form: CCAA AMO-02

(*) if Curaçao is the authority.

(**) Delete as appropriate if the organization is not approved.

(***) Complete with the appropriate rating and limitation.

(****) Complete with the appropriate limitation

IS: 6.2.1.5 APPLICATION FORM: CCAA- AMO-01.

Application for a CCAR Part 6 Approval

1. Your Reference	Please provide a brief, unique identifier that we will use to refer to your application

2. Applicant Address and Contact Data		
2.1 Applicant Data		
2.1.1 Name and Address (registered (business) name and address/legal seat of the company)	Reference Number	CURCW/.../... (if known)
	Registered Name	Registered Name as specified in the Certificate of Incorporation
	Trading Name	if applicable, enter Trading Name/Doing Business-as Name
	Address	
	Country	
2.1.2 Contact Person (responsible for this application)	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title	
	Phone / Fax	
	Email	
Important Note: An approval may be granted to an organization which may be either a natural person, a legal entity or part of a legal entity. Would you therefore please include with this application confirmation of the legal status of your organization and enclose a copy of your Certificate of Incorporation.		
2.2 Date of Certificate of Incorporation (CoI)		dd/mm/yyyy
2.3 Billing Data (may be left blank, if same as 2.1 Applicant Data)		
2.3.1 Billing Address (CCAA Fees & Charges invoices will state the address entered here)	Company Name	Same as in section 2.1.1 (other name only in exceptional cases)
	Address	
	PO Box	
	Post Code	
	City	
	Country	

2.3.2 Contact Person (Responsible for ensuring the CCAA terms of payment are honored.)	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title	
	Phone / Fax	
	Email	
2.3.3 Invoice Recipient (The electronic invoice will be issued to the email address indicated here)	Email	
2.4 Shipping Data (may be left blank, if same as 2.1 Applicant Data)		
2.4.1 Delivery Address (for the shipping of original CCAA documents)	Company Name	
	Street / Nr	
	PO Box	
	Post Code	
	City	
	Country	
2.4.2 Contact Person (shipping)	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title	
	Phone / Fax	
	Email	

Technical Application Data		
3. References		
CCAA CCAR Part 6°	Please enter your CCAA approval number XXXX) or enter N/A in case of inital application	
4. Addresses of location (s) requiring approval		
4.1 Principal place of business (may be left blank, if same as 2.1 Applicant Data)	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	*Enter IATA code of the Airport or "N/A" if not applicable*
4.2 Additional locations Enter "Not applicable" in the case the Additional Location where maintenance or continuing airworthiness functions are exercised are the same as 3.1 Principal Place of Business.		
4.2.1 Location 1	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.2.2 Location 2	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.2.n Location n	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable

[duplicate table as applicable]

4.3 Line Maintenance Location(s) Enter "Not applicable" in the case the Line Maintenance Location is the same as 4.1 Place of Business or in the case of Form CCAA AMO-02 used for CCAR Part-6 AMO applications/approvals.		
4.3.1 Location 1	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.3.2 Location 2	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable
4.3.n Location n	Street / Nr	
	Post Code	
	City	
	Country	
	Airport Code	Enter IATA code of the Airport or "N/A" if not applicable

[duplicate table as applicable]

5. Contacts		
5.1 Accountable Manager	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title/Position	
	Phone/Fax	
	Email	
5.2. Quality/Safety Manager	Title	☐ Mr ☐ Ms
	Name	
	First name	
	Job title/Position	
	Phone/Fax	
	Email	
5.3. Organization Generic Email		This address will be used for all technical communication including the automatic technical notifications sent by the CCAA.

6. Identification of Activity

6.1 Application for	☐ CCAR Part 6 Approval
6.2 Application Type	☐ ***INITIAL APPLICATION*** ☐ Paragraph 6.2.1.5 (1).i of CCAR Part 6. ☐ Revision of initial application ☐ Organization name ☐ Scope ☐ Address data ☐ Contact detail(s) ☐ Nominated persons ☐ Number of staff ☐ Application for change ☐ Organization name ☐ Scope ☐ Others ☐ Address data ☐ Contact detail(s) ☐ Nominated persons ☐ Number of staff ☐ Notification of surrender
6.3 Terms of CCAR Part 6 AMO Approval and scope of work relevant to this application	Provide information on this application's scope - e.g.: A1 rating and D1 rating; Change of Quality Manager; Addition of a line station. Complete sections 8 to 10 (as applicable) for details of the scope of work.

7. Number of staff

a) The total number of staff employed by the organization in order to comply with CCAR Part-6

b) The number of contracted staff associated with the proposed approval

	a) Employees	b) Contractors
Total		

8. Scope of requested CCAR Part 6 AMO Approval (*)

(*) in case of application for change of the scope of work, only the parts of this table affected by the change shall be completed.

	RATING	LIMITATION	BASE		LINE	
			Yes	No	Yes	No
AIRCRAFT	**A1** Aeroplanes/airships above 5700 Kg	See completion instructions in this subpart				
	A2 Aeroplanes/airships 5700 Kg and below	See completion instructions in this subpart				
	A3 Helicopters	See completion instructions in this subpart				
	A4 Aircraft other than A1, A2 or A3	See completion instructions in this subpart				
ENGINES	**B1** Turbine	See completion instructions in this subpart				
	B2 Piston	See completion instructions in this subpart				
	B3 APU	See completion instructions in this subpart				
COMPONENTS OTHER THAN COMPLETE ENGINES OR AUXILIARY POWER UNITS	**C1** Air Cond & Press ☐ **C2** Auto Flight ☐ **C3** Comms and Nav ☐ **C4** Doors – Hatches ☐ **C5** Electrical Power & Lights ☐ **C6** Equipment ☐ **C7** Engine – APU ☐ **C8** Flight Controls ☐ **C9** Fuel ☐ **C10** Helicopter – Rotors ☐ **C11** Helicopter – Trans ☐ **C12** Hydraulic Power ☐ **C13** Indicating/Recording System ☐ **C14** Landing Gear ☐ **C15** Oxygen ☐ **C16** Propellers ☐ **C17** Pneumatic & Vacuum ☐ **C18** Protection Ice/Rain/Fire ☐ **C19** Windows ☐ **C20** Structural ☐ **C21** Water Ballast ☐ **C22** Propulsion Augmentation ☐	See completion instructions in this subpart			
SPECIALISED SERVICES	**D1** Non Destructive Testing	☐ Eddy Current Inspection ☐ Liquid Penetrant Inspection ☐ Magnetic Particle Inspection ☐ Radiography Inspection ☐ Shearography Inspection ☐ Thermography Inspection ☐ Ultrasonic Inspection	See completion instructions in this subpart			
		☐ Other Method	State particular NDT method(s)			
SPECIALISED ACTIVITIES IN THE COURSE OF MAINTENANCE		See completion instructions in this subpart				

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9. Scope of requested Subcontracted Organizations Approval (*)

Please do not enter any data in this table in case of CCAR Part-6 application

(*) in case of application for change of the scope of work, only the parts of this table affected by the change shall be completed.

Rating	Aircraft type/series/group (with engine type)	Subcontracted organizations	Permits to Fly	
A1 Aeroplanes/ airships above 5700 Kg				
A2 Aeroplanes/ airships 5700 Kg and below				
A3 Helicopters				
A4 Aircraft other than A1, A2 or A3				

10. Sub-contracted organizations address data

Name/Address	Enter N/A in case of CCAR Part 6
Name/Address	Enter N/A in case of CCAR Part 6

[add rows as applicable]

11. Other CCAA approvals held by the applicant

12. Applicant's declaration and acceptance of the General Conditions and Terms of Payment

I declare that I have the legal capacity to submit this application to CCAA and that all information provided in this application form is correct and complete.

I have understood that I am submitting an application for which fees or charges will be levied by CCAA in accordance with Regulation on the fees and charges levied by the CCAA, as last amended and available from www.ccaa.cw

☐ I hereby request a financial estimate of the fees or charges related to this application (please tick box if applicable).

In cases where, due to the expected complexity of the project, this estimate requires a prior technical analysis by the CCAA, this analysis shall be charged on an hourly basis, under a contractual agreement to be signed between the applicant and the CCAA. This estimate will be amended if it appears that the task is simpler or can be carried out faster than initially foreseen or, on the contrary, if it is more complex and takes longer to carry out than the CCAA could reasonably have foreseen. The estimate is for information purposes and has no binding effect on the CCAA or applicant. I am aware that CCAA is to continue the processing of this application only after the estimate has been accepted and, consequently the provision of an estimate will lead to a delayed project start.

I acknowledge that I have read and understood the CCAA Terms of Payment (see www.ccaa.cw > the CCAA > FAQs > > Fees & Charges > Downloads > Terms of Payment) and agree to abide by them. I declare to be aware that fees or charges, as well as all relevant travel costs must be paid whether or not the application is successful and that they might not be refundable. Moreover, I declare that I am aware of the consequences of non-payment.

Enter date/location	Enter name	
Date/Location	Name	Signature of Accountable Manager**
****Important note:** CCAA does not accept applications without signature. **The signature** of either the Accountable Manager or of the new proposed Accountable Manager **is always required.**		
This Application including all information as required by CCAR Part 6 should be sent by e-mail, as applicable to: civilair@gobiernu.cw		**Completion Instructions** Please refer to Form CCAA-AMO-01 instructions as amended

Form CCAA-AMO-1 filling instructions related to applications for an initial, change or surrender of CCAR Part 6 approval.

Administrative application data – applicable to all applications

It is strongly recommended to use the English language in completing Form: **CCAA- AMO-01.**
Please complete the form in a clearly legible way.

1. Your Reference	This is an optional information but highly recommended for tractability purposes. The field may be used to provide a unique internal reference to this application. This reference will be used as an identifier of your application in administrative communications, e.g. invoice/s, by CCAA .
2. Applicant Address and Contact Data	
2.1.1 Name and Address	Account N°: if known to you, please enter your CCAA reference Number which follows the pattern CURCW/.../... which can be found on any application acceptance letter received for previous applications. Registered Name: Please enter the full name of the company as it appears on the Certificate of Incorporation/Business Registration or similar legal document stating name of the company. Trading name: if you are using a Trade name differing from the registered company name, please indicate it here, otherwise enter "Not applicable". Street Number, Post Code, city and Country: Please enter the full Address of the company as it appears on the Certificate of Incorporation/Business Registration or similar legal document stating the seat of the company.
2.1.2 Contact Person	The name and contact details specified in this section are those of the person responsible for the application.
2.2 Date of the Certificate of Incorporation (CoI)	Please provide the date of the Certificate of Incorporation/Business Registration or similar legal document stating name and seat of the company. A copy of the Certificate of Incorporation/Business Registration or similar legal document stating name and address of legal seat of the company shall be provided together with an initial application or an application for name change. Additional translation in English language of this document should be submitted.
2.3.1 Billing Address	The (company) name and address specified in this section will be printed on the invoice/s CCAA will issue. A (company) name deviating from the one entered in section 1 "Applicant Registered Name" can only be accepted by CCAA upon justified request. A written statement, signed and stamped, from the legal entity which is taking responsibility to pay the CCAA. Please contact Applicant if in case of questions. Please leave blank if the Billing Address is the same as the registered name and address.
2.3.2 Contact Person	The name and contact details specified in this section are those of the person that will be contacted for all issues connected with the require payments. Responsible for ensuring the CCAA terms of payment are honored.
2.3.3 Invoice Recipient	An electronic invoice copy will be issued to the email address indicated here. The email address provided may also be a generic email address (can be the same as Organization Generic Email)
2.4.1 Delivery Address	The (company) name and postal address specified in this section is where CCAA will send the original certificate/approval. Please leave blank if the Shipping Address is the same as the registered name and address.
2.4.2 Contact Person	The contact person specified in this section is the person the original certificate/approval will be sent

1.1 Technical application data – Application for initial approval

3. References	
CCAR Part 6 Nº	Please enter "Not applicable" for initial approval.
4. Addresses of location (s) requiring approval	
4.1 Principal place of business	Enter the address of **the Principal Place of Business (PPB)**. PPB means the head office or the registered office of the undertaking within which the principal financial functions and operational control of the activities referred to in the Regulation are exercised.
4.2 Additional location(s)	Enter the address(es) of **any additional location(s)** used by the organization, except for Line Maintenance Locations to be listed in block 4.3. This block shall be used to identify locations(s) **in addition to the PPB**, where the organization is performing its activities or having offices (for example: office of the Accountable Manager, records archive, continuing airworthiness management office, base maintenance facilities, engine maintenance facilities, component maintenance facilities, NDT facilities, etc.). [Duplicate the table to add as many additional locations as necessary].
4.3 Line maintenance location(s)	Enter the address (es) of the line maintenance location(s). **All the line stations** shall be listed. This block is only applicable for organizations applying for CCAR Part 6, A1, A2, A3 & A4 ratings. [Duplicate the table to add as many additional locations as necessary].
5. Contacts	
5.1. Accountable Manager	Please enter the full details of the proposed Accountable Manager. The term "proposed" only remains applicable until the application has been approved.
5.2 Quality/Safety Manager	The person identified here as "Quality/Safety Manager" is intended to be the person in the organization who is in charge of maintaining the relationship with the Competent Authority. For CCAR Part 6 this person will be the quality / Safety manager. The "Quality/Safety Manager" will also act as the contact person in case CCAA has administrative questions related to the application.
5.3 Organization Generic Email	Enter the generic email address of the organization. The "generic" email address to be used by CCAA for formal email communication with your organization to ensure an efficient and stable communication channel. This email address will be used for all technical communication, including the automatic technical notifications sent by the CCAA. This address is aimed to be used even though people in charge leave the company. The address should remain independent from a person and therefore without people's name.
6. Identification of Activity	
6.1 Application for	Please indicate the application type: **Application for a CCAR Part 6 Approval** by ticking the box.
6.2 Application Type	**Initial application**: Tick this box when applying for an initial approval. Paragraph 6.2.1.5 (1).i of CCAR Part 6.
	Revision of the Initial Application: Tick this box in the case the organization intends to revise its application before the approval is granted. Please select the box corresponding to the type of change(s). [Multiple selection is possible].

6.3 Terms of CCAR Part 6 Approval and scope of work relevant to this application	Please describe the scope of the application. **For CCAR Part 6 only:** **In case of an initial application** basically the maintenance organization shall summarize the requested ratings without specifying the A/C, engine/APU types. For example: • A1 line and base maintenance; A2 line maintenance only • B1; C2; C14 • Specialized activities in the course of maintenance. **In case of application for revision of initial application**, **only indicate the relevant change**.
7. Number of staff	
(a) Employees	The total number of staff employed by the organization who are involved in the CCAA approval.
(b) Contractors	The total number of contracted staff who are involved in the CCAA approval.
8. Scope of requested CCAR Part 6 Approval	
Scope of requested CCAR Part 6 Approval	Please describe in detail the scope of the application with reference to the information included in block 6.3.
Aircraft: **Rating A limitation**	**A1 rating:** Quote the requested aircraft type(s) by indicating in the column limitation the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. A1 rating is reserved to Part-6 approvals and is not applicable to Part-MF approvals. **A2 rating:** Quote the requested aircraft type(s) by indicating in the column limitation the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. **A3 rating:** Quote the requested aircraft type(s) by indicating in the column limitation the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. **A4 rating:** Quote the requested aircraft series or type(s) by indicating in the column limitation the TC holder and models as defined in Appendix I to AMC to EASA Part-66 as amended. **Line & Base:** (Only applicable to Part-6 organizations) For each aircraft type, the maintenance organization must define the type of maintenance by marking Yes or No in the column Base and/or Line maintenance activity. The definition to be included within the column "Limitation" of the Form 2 is the one addressed within the column N° 3 "type rating endorsement" of Appendix I to AMC to EASA Part-66 as amended. For example, when an organization applies for: • A1 rating A319 (CFM56) Line, the limitation of the Form 2 must address the Airbus A318/A319/A320/A321(CFM56) Line • A1 rating A330 (GE CF6) Base + Line and A330 (PW4000) Line only and A330 (RR RB211 Trent 700) Base only, the limitation of the Form 2 must address all these type different aircraft - engine combination together the Line/Base limitation as applicable to the aircraft-engine combination

Engines: **Rating B limitation**	**B1 rating:** Quote the requested engine type(s) as defined in the engine TCDS. **B2 rating:** Quote requested engine manufacturer or group or type as defined by the OEM **B3 rating:** Quote the requested APU type(s) as defined by the OEM. The B rating is required for maintenance of engines/APUs according to the Engine/APU shop Maintenance Manual.
Components: **Rating C limitation**	**For the Cx ratings:** The requested class C rating shall be ticked. The Cx rating is required for maintenance of components according to the Component Maintenance Manual. Quote under the column limitations the aircraft type or aircraft manufacturer or the particular component and/or the maintenance task(s). Cross-refer to a capability list in the exposition.
Specialized Services Rating D1 limitation	**D1 rating:** The requested NDT method(s) shall be ticked. If the option "Other Method" is ticked, state the particular NDT method. Borescope inspection is not considered as being listed under the D1 rating. Note: Holding the rating D1 enables the organization to issue a Form CCAA-AMO-01 limited to the accomplishment of the NDT inspection.
Specialized Activities in the course of maintenance	Quote the specialized activities (such as NDT, painting, welding, plating, plasma spray, heat treatment, etc.) intended to be performed in the "course of maintenance" under any rating (Ax, Bx or Cx). These activities do not need to be mentioned if contracted to another CCAR Part 6 AMO (as listed in AMO MPM).
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09. Scope of requested Subcontracted organizations	
Scope of requested Subcontracted organizations Approval	Within the applicable rating, select the requested aircraft model and the engine type fitted thereon and subcontracted organizations **Please do not enter any data in this table in case of CCAR Part 6**
10. Subcontracted Organizations address data	
Subcontracted organizations address data	Please list address (es) data of subcontracted organization(s) working under this approval. Add rows as applicable. **Please do not enter any data in this table in case of CCAR Part 6**
11. Other CCAA approvals held by the applicant	
Other CCAA approval held by the applicant	If the organization holds other CCAA approval(s), please indicate the relevant approval number. Eg AOC, Aproved Training Organizations.

Technical application data – Application for change

3. References	
CCAR Part 6 Nº	In case of application for change pertaining to your CCAR Part 6 approval, please enter your CCAA .XXXX number. If your application for change does not pertain your CCAR Part 6 approval enter "Not applicable".
4. Addresses of location (s) requiring approval	
4.1 Principal place of business	In case of application for change pertaining to your principal place of business (PPB), please enter the address that requires approval. PPB means the head office or the registered office of the undertaking within which the principal financial functions and operational control of the activities referred to in the Regulation are exercised.
4.2 Additional location(s)	In case of application for a change pertaining to your additional location(s), please enter only the address affected by the change. This block shall be used to identify **locations(s) in addition to the PPB**, where the organization is performing its activities or having offices (for example: office of the Accountable Manager, records archive, continuing airworthiness management office, base maintenance facilities, engine maintenance facilities, component maintenance facilities, NDT facilities, etc). Line Maintenance Locations to be listed in block 4.3. [Duplicate the table to add as many additional locations as necessary].
4.3 Line maintenance location(s)	In case of application for a change pertaining to your line maintenance location(s), please enter only the address affected by the change. This block is only applicable for organizations holding a CCAR Part 6 A1, A2, A3 & A4 ratings. [Duplicate the table to add as many additional locations as necessary].
5. Contacts	
5.1. Accountable Manager	In case of application for a change pertaining to your Accountable Manager, please enter the full details of the proposed Accountable Manager.
5.2 Quality/Safety Manager	In case of application for a change pertaining to your Quality/Safety manager, please enter the full details of the proposed Quality/Safety manager. The person identified here as Quality/Safety Manager is intended to be the person in the organization who is in charge of maintaining the relationship with the Competent Authority. For CCAR Part 6 this person will be the Quality Manager. The name and contact details specified in this section are those of the person responsible for the application. The "Quality/Safety Manager" will also act as the contact person in case CCAA has administrative questions related to the application.
5.3 Organization Generic Email	In case of application for a change pertaining to your generic email address, please enter the new generic email address of the organization. The "generic" email address to be used by CCAA for formal email communication with your organization to ensure an efficient & stable communication channel. (This email address will be used for all technical communication including the automatic notifications sent by CCAA Inspection and Findings Reports Database Service. This address is aimed to be used even though people in charge leave the company. The address should remain independent from a person and therefore without people's name.

6. Identification of Activity	
6.1 Application for	Please indicate your existing approval affected by the change: **CCAR Part 6 approval** by ticking the appropriate box.
6.2 Application Type	Please tick **Application for change.** Please select the box corresponding to the type of change(s). • Organization name • Address(es) • Nominated persons • Scope (Rating(s), privileges, limitations, etc.) • Contact details • Number of staff Multiple selection is possible. If option "Others" is selected, please describe the type of change in 6.3. **Application for transition:** Tick the applicable box in case your organization is already the holder of a valid CCAA Part-6 No change in scope of work is possible when applying for transition.
6.3 Terms of CCAR Part 6 Approval and scope of work relevant to this application	Please describe the scope of the application for change. The organization is requested to record here only the change to the existing approval and not the whole scope. This field shall be used to detail, in an accurate manner, which kind of change(s) the organization is requesting, such as: - Name change; - Address change; - Addition or removal of location(s); - Removal or addition of rating(s) to the existing Scope; - Removal or addition of aircraft type/ series/ group to the existing scope; - Addition of privileges (e.g permits to fly); - Addition or removal of aircraft models in an existing aircraft type. For example addition of model 747-8F to the already approved aircraft rating Boeing 747-8 (GE GEnx))
	<u>For CCAR Part 6 only:</u> In the case of changes which apply to a specific location, one of the following terms shall be used to identify the change. - **Additional location**: when a new maintenance location is added; - **Deleted location**: when an existing maintenance location is deleted; - **Location upgrade**: when the scope of work of an existing location is upgraded to an upper level (ex. new rating, new aircraft type, etc); - **Location downgrade** when the scope of work of an existing location is downgraded to a lower level (ex. Deletion of a rating, or an aircraft type capability, etc.) A cross reference shall be made to block nr. 3 to link the above terms to a specific location. In addition, the rating affected by the change (at that location) shall be specified. Example 1: *The following changes are requested in the Locations identified in Block 4:* • *Block 4.2.1- XX Airport: Location Downgrade - rating D1 to be deleted* • *Block 4.2.2- YY Airport: Location Upgrade - rating C14 to be added* • *Block 4.3.1- ZZ Airport: Additional Location with rating A1 Line*

7. Number of staff	
(a) Employees	In case of application for a change pertaining to the total number of staff employed by the organization to comply with the applicable CCAR's, please indicate the new number of employed staff.
(b) Contractors	In case of application for a change pertaining to your number of contracted staff associated with the approval, please indicate the new number of contracted staff. **.**
8. Scope of requested CCAR Part 6 Approval	
Scope of requested CCAR Part- 6 approval	Please describe in detail the scope of the application with reference to the information included in block 6.3. In case of application for change of the scope of work, only the parts of this table affected by the change shall be compiled.
Aircraft: **Rating A limitation**	**A1 rating**: Quote the aircraft type(s) by indicating in the column **limitation** the Part-2 type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. A1 rating is reserved to CCAR Part 6 approvals. **A2 rating:** Quote the aircraft type(s) by indicating in the column **limitation** the type rating endorsement and the models as defined in Appendix I to AMC to EASA Part-66 as amended. **A3 rating:** Quote the aircraft type(s) by indicating in the column **limitation** the type rating endorsement and the models as defined in Appendix I to AMC to EASA Part 66 as amended**.** **A4 rating:** Quote the aircraft series or type(s) by indicating in the column **limitation** the TC holder and models as defined in Appendix I to AMC to EASA Part -66 as amended**.** **Line & Base:** For each aircraft type the maintenance organization must define the type of maintenance by marking Yes or No in the column Base and/or Line maintenance activity.
Engines: **Rating B limitation**	**B1 rating:** Quote the engine type(s) as defined in the engine TCDS to be added or removed. B2 rating: Quote engine manufacturer or group or type as defined by the OEM to be added or removed. **B3 rating:** Quote the APU type(s) as defined by the OEM, to be added or removed. **The B rating** is required for maintenance of engines according to the Engine Shop Maintenance Manual. **Note:** For engines on wing maintenance under the A rating refer to Appendix IV to Annex I (EASA Part M).
Components: **Rating C limitation**	The class C rating requested to be added or removed shall be ticked. The Cx rating is required for maintenance of components according to the Component Maintenance Manual.
	Quote under the column limitations the aircraft type or aircraft manufacturer or the particular component and/ or the maintenance task(s). Cross-refer to a capability list in the exposition.
Specialized Services **Rating D1 limitation**	**D1 rating:** The NDT method(s) to be added or removed shall be ticked. If the option "Other Method" is ticked, state the particular NDT method. Borescope inspection is not considered as being listed under the D1 rating. Note: Holding the rating D1 enables the organization to issue a CCAA Form 1 limited to the accomplishment of the NDT inspection.
Specialized Activities in the course of maintenance	Quote specialized activities (such as NDT, painting, welding, plating, plasma spray, heat treatment, etc.) to be added or to be removed. These specialized activities are performed in the "course of maintenance" under any rating (Ax, Bx or Cx) These activities do not need to be mentioned if contracted to another CCAR Part 6 AMO (as listed in AMO Procedure Manual.

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09. Scope of requested subcontracted organizations Approval	
Scope of requested subcontracted organizations **Approval**	Within the applicable rating, select the aircraft model and the engine type fitted thereon and subcontracted organizations related to the requested change. Please do not enter any data in this table in case of CCAR Part 6 application
10. Subcontracted Organizations address data	
Subcontracted Organizations address data	Please list all address(es) of subcontracted organization(s) working under this approval affected by the requested change. Add rows as applicable. **Please do not enter any data in this table in case of CCAR Part 6 application**
11. Other CCAA approvals held by the applicant	
Other CCAA approval held by the applicant	If the organization holds other CCAA approval(s), please indicate the relevant approval number. If the CCAA Part-6 approval is linked to an CCAA AOC or Approved Training Organization, the AOC and Approved Training Organization number shall be also reported.
12. Applicant's declaration and acceptance of the General Conditions and Terms of Payment	
Financial estimate	You may request a financial estimate for a task that is calculated on an hourly basis. This estimate will be amended if it appears that the task is simpler or can be carried out faster than initially foreseen or, on the contrary, if it is more complex and takes longer to carry out than the Agency could reasonably have foreseen. Please be aware that CCAA is to continue the processing of the application only after the estimation has been accepted and, consequently, the provision of an estimation will lead to a delayed project start. The estimation is for information purposes and has no binding effect on the Agency or applicant.
Date/Location	Enter the date of signature and the place in which the Accountable Manager* office is located.
Name of the Accountable Manager	Enter the name of the Accountable Manager*.
Signature of the Accountable Manager	Signature of the Accountable Manager*. **Important note:** Please do not forget to sign the application form. CCAA does not accept unsigned applications.
* In case of a new CCAR Part 6 Applicant or in case of change of Accountable the signature of the name, location of the proposed Accountable Manager is required.	

1.4 Technical application data – Notification of surrender

3. References	
CCAR Part 6 Nº	In case of notification of surrender pertaining to your CCAR Part 6 approval, please enter your CCAA Part 6 .XXXX number.
	In case of notification of surrender pertaining to your CCAA other approval, please enter your CCAA..XXXX number.
4. Addresses of location (s) requiring approval	
4.1 Principal place of business	Enter "Not applicable".
4.2 Additional location(s)	Enter "Not applicable".
4.3 Line maintenance location(s)	Enter "Not applicable".
5. Contacts	
5.1. Accountable Manager	Please enter the full details of the Accountable Manager.
5.2 Quality/Safety Manager	Please enter the full details of the Quality/Safety Manager.
5.3 Organization Generic Email	Please enter the generic email address.
6. Identification of Activity	
6.1 Application for	Enter "Not applicable".
6.2 Application Type	Please tick **Notification of surrender.**
6.3 Terms of CCAR Part 6 Approval and scope of work relevant to this application	Enter "Not applicable".
7. Number of staff	
(a) Number of staff	Enter "Not applicable".
(b) Number of staff	Enter "Not applicable".
8. Scope of requested CCAR Part 6 Approval	
Scope of requested Part 6 approval	Enter "Not applicable".

Aircraft: **Rating A limitation**	Enter "Not applicable".
Engines: **Rating B limitation**	Enter "Not applicable".
Components: **Rating C limitation**	Enter "Not applicable".
Specialized Services **Rating C limitation**	Enter "Not applicable".
Specialized Activities	Enter "Not applicable".
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09. Scope of requested Subcontracted organizations Approval	
Scope of requested Subcontracted organizations Approval	Enter "Not applicable".
10. Subcontracted Organizations address data	
Subcontracted Organizations address data	Enter "Not applicable".
11. Other CCAA approvals held by the applicant	
Other CCAA approval held by the applicant	Enter "Not applicable".
12. Applicant's declaration and acceptance of the General Conditions and Terms of Payment	
Financial estimate	You may request a financial estimate for a task that is calculated on an hourly basis. This estimate will be amended if it appears that the task is simpler or can be carried out faster than initially foreseen or, on the contrary, if it is more complex and takes longer to carry out than the Agency could reasonably have foreseen. Please be aware that CCAA is to continue the processing of the application only after the estimation has been accepted and, consequently, the provision of an estimation will lead to a delayed project start. The estimation is for information purposes and has no binding effect on the Agency or applicant.
Date/Location	Enter the date of signature and the place in which the Accountable Manager* office is located.
Name of the Accountable Manager	Enter the name of the Accountable Manager*.
Signature of the Accountable Manager.	Signature of the Accountable Manager*. **Important note:** Please do not forget to sign the application form. CCAA does not accept unsigned applications.

IS 6.2.1.9 AUTHORITY TO INSPECT

(a) The authority may raise findings in case of non-conformities with this Part.

(b) Depending on the severity of the identified situation, the authority will classify these findings as Level 1, 2 or 3.

(1) A level 1 finding is any finding of significant non-compliance with the requirements of this Part which lowers the safety standard and seriously endangers flight safety.

(2) A level 2 finding is any finding of non-compliance with the requirements of this Annex which may lower the safety standard and may endanger flight safety.

(3) Level 3 observation" is any item where it has been identified, by objective evidence, to contain potential problems that could lead to a non-compliance (it is to note that this does not meet the criteria to identify this as a Level 1 or Level 2 finding).

(4) After receipt of notification of findings, the holder of the maintenance organization approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

(5) When during audits or by other means evidence is found showing non-compliance with the requirements of this Part, the authority shall take the following actions:

(6) For level 1 findings, immediate action shall be taken by the authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organization approval, until successful corrective action has been taken by the organization.

(7) For level 2 findings, the corrective action period granted by the authority must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the competent authority may extend the three-month period subject to a satisfactory corrective action plan agreed by the competent authority.

(8) Action shall be taken by the authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the authority.

IS: 6.2.1.14 QUALITY SYSTEM

(a) In order to show compliance with 6.2.1.14 of this part, an AMO shall establish its quality system in accordance with the instruction and information prescribed in the following paragraphs.

1.0 General

1.1 Terminology.

1.1.1 The terms used in the context of the requirement for an AMO's quality system have the following meaning:

(a) **Accountable manager.** The person acceptable to the Authority, who has corporate authority for ensuring that all maintenance functions can be financed and performed to the standard required by the Authority and any additional requirements defined by the AMO.

(b) **Quality assurance.** As distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions that are required to provide adequate confidence that a product or service satisfies quality requirements.

1.2 Purpose of the Quality System.

1.2.1 The quality system shall enable an AMO to monitor compliance with these regulations, the AMO Procedures Manual, and any other standards specified by the AMO, or the Authority, to ensure safe maintenance practices and airworthy aircraft and aeronautical products.

1.3 Organizational Structure.

1.3.1 The AMO may specify the basic structure of the quality system according to the size and complexity of the AMO to be monitored.

1.3.2 An AMO shall be categorized according to the number of full-time personnel. AMOs that employ 5 or fewer full-time employees are considered to be "very small" organizations, while those employing between 6 and 20 full-time employees are regarded as "small" organizations, as far as quality systems are concerned. Full time in this context means employed for not less than 35 hours per week, excluding vacation periods.

1.3.3 Complex quality systems may be inappropriate for a small or very small organization, and the clerical effort required to develop manuals and quality procedures for a complex system may stretch that AMO's resources. It is therefore accepted that such an AMO may tailor its quality system to suit the size and complexity of the organization and allocate resources accordingly.

1.3.4 For small and very small AMOs, it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist shall have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken.

1.3.5 A small AMO may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and/or qualified organizations to perform the quality audits on behalf of the quality manager.

1.4 Scope.

1.4.1 As a minimum, the quality system shall address the following:

(a) Relevant terminology;

(b) The applicable requirements of these regulations;

(c) Any additional standards and maintenance practices of the organization;

(d) A description of the organization, including the organizational structure;

(e) Identification of those persons responsible for the development, establishment, and management of the quality assurance programme, including a description of their duties and responsibilities;

(f) Relevant portions of manuals, reports, and records, including a distribution list of all controlled copies;

(g) The organization's quality policy;

(h) Quality procedures;

(i) A quality assurance programme, including:

(1) The schedule of the monitoring process;

(2) Audit procedures;

(3) Reporting procedures;

(4) Follow-up and corrective action procedures; and

(5) A recording system.

(j) The required financial, material, and human resources; and

(k) Training requirements.

1.5 Safety Attributes.

1.5.1 Where appropriate, an AMO shall incorporate the following safety attributes into its policies, procedures, and processes:

(a) Authority;

(b) Responsibility;

(c) Procedures;

(d) Controls;

(e) Process measurements; and

(f) Interfaces.

1.6 Relevant Documentation.

1.6.1 The required quality system may be documented in the AMO Procedures Manual or in a separate Quality Manual. In either instance, the documentation shall:

(a) Contain instructions and information to allow the personnel concerned to perform their duties with a high degree of safety;

(b) Be easy to revise;

(c) Allow personnel to determine the current revision status;

(d) Have the date of the last revision on each page;

(e) Not be contrary to any applicable regulation or the organization's operations specifications; and

(f) Reference applicable regulations.

1.6.2 Each document defined within the structure of an AMO's quality system shall be subject to document control. Document control procedures shall ensure that the documents are:

(a) Authorized;

(b) Adequate;

(c) Security classified;

(d) Standardized when completed;

(e) Revised and amended when required;

(f) Appropriately distributed;

(g) Appropriately stored;

(h) Periodically reviewed; and

(i) Appropriately disposed of.

1.7 Quality Policy.

1.7.1 An AMO shall establish a formal, written quality policy statement that is a commitment by the accountable manager as to what the quality system is intended to achieve.

1.7.2 The quality policy shall reflect initial and continued compliance with these regulations, the AMO Procedures Manual, and any additional requirements defined by the AMO or the Authority.

1.7.3 The quality policy shall clearly define the AMO's purpose, structure, principal and objectives, and all the services rendered by the AMO.

1.8 Quality Management.

1.8.1 The accountable manager shall have overall responsibility for the AMO's quality system, including the frequency, format, and structure of the internal management evaluation activities as prescribed in paragraph 2.9 of this IS.

1.8.2 The function of the quality manager is to monitor compliance with, and the adequacy of, procedures required to ensure safe maintenance practices and airworthy aircraft and aeronautical products as required by these regulations.

1.8.3 The quality manager shall be responsible for ensuring that the quality assurance programme is properly established, implemented, and maintained.

1.8.4 The quality manager shall:

(a) Report to the accountable manager;

(b) Not be one of the required management personnel; and

(c) Have access to all parts of the AMO and, as necessary, to any contractor's or subcontractor's organization.

1.8.5 In the case of a very small or small AMO, as defined in 1.3.3 of this IS, the positions of the accountable manager and quality manager may be combined.

1.9 Feedback System.

1.9.1 The quality system shall include a feedback system to the accountable manager to ensure that corrective action is identified and promptly addressed.

1.9.2 The feedback system shall specify who is required to rectify discrepancies and non-compliance in each particular case, and the procedure to be followed if corrective action is not completed within an appropriate timescale.

2.0 Quality Assurance Programme

2.1 Introduction.

2.1.1 The quality assurance programme shall include all planned and systematic actions necessary to provide confidence that maintenance functions are conducted in accordance with all applicable requirements, standards, and procedures.

2.2 Quality Assurance Programme Plan.

2.2.1 An AMO shall describe its quality assurance duties, responsibilities, procedures, and organization in a programme plan.

2.2.2 Terms and elements defined in the plan shall be consistent with those outlined in the AMO Procedures Manual.

2.2.3 Copies of the programme plan shall be distributed to all personnel concerned.

2.2.4 Revisions shall be made as necessary to ensure the plan continues to reflect the organization's current quality assurance duties, responsibilities, procedures, and organization.

2.3 Monitoring.

2.3.1 The purpose of monitoring within the quality system is primarily to investigate and judge the effectiveness of the quality system and thereby to ensure that defined policy and maintenance standards are continuously complied with.

2.3.2 Monitoring activity is based upon:

(a) Quality inspections;

(b) Quality audits;

(c) Corrective action; and

(d) Follow-up.

2.3.3 The AMO shall establish and publish a quality procedure to monitor regulatory compliance on a continuing basis. This monitoring activity shall be aimed at eliminating the causes of unsatisfactory performance.

2.3.4 Any non-compliance identified as a result of monitoring shall be communicated to the manager responsible for taking corrective action or, if appropriate, to the accountable manager. Such non-compliance shall be recorded, for the purpose of further investigation, in order to determine the cause and to enable the recommendation of appropriate corrective action.

2.4 Quality Inspection.

2.4.1 The primary purpose of a quality inspection is to observe a particular event, action, document, etc., in order to verify whether established procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.

2.4.2 Typical subject areas for quality inspections are:

(a) Facility's size and segregation;
(b) Office accommodation;
(c) Work environment;
(d) Storage;
(e) Management changes;
(f) Personnel numbers and man-hour plan;
(g) Competence process;
(h) Qualifying certifying staff;

(i) Records of certifying staff;
(j) Issue of authorizations;
(k) Adequate equipment;
(l) Equipment control and calibration;
(m) Approved data held;
(n) Modified maintenance data;
(o) Data availability;
(p) Up-to-date data;
(q) Aircraft return to service;
(r) Release document contents;
(s) Release control;
(t) Details on work documents;
(u) Record retention;
(v) Reporting of unairworthy findings;
(w) Clear work orders;
(x) Procedures per AMO Procedures Manual;
(y) Suppliers and subcontractors;
(z) Acceptance of parts;
(aa) Parts control in storage area;
(bb) Use of tools;
(cc) Cleanliness standards;
(dd) Control of repairs;
(ee) Completion of aircraft maintenance programme;
(ff) Control of ADs;
(gg) Control of modifications;
(hh) Control of working documents;
(ii) Base maintenance findings;
(jj) Defective parts segregation;
(kk) Parts to outside contractors;
(ll) Computer maintenance systems;
(mm) Powerplant running;
(nn) Aircraft procedures;
(oo) Line maintenance parts control;
(pp) Line servicing control;
(qq) Line defect control;
(rr) Aircraft technical log – continuing airworthiness records section completion;
(ss) Pool and loan parts;
(tt) Return of defective parts to base;
(uu) Product maintenance exemption control;
(vv) Procedures deviation control;
(ww) Special services control (NDI);

(xx) Contractors' working teams;
(yy) Product audit;
(zz) Privileges and locations control;
(aaa) Limitation control; and
(bbb) Control of changes.

2.4.3 Typical methods used for quality inspections for maintenance include:

(a) Product sampling – the monitoring of a representative sample of aeronautical products of the aircraft fleet;

(b) Defect sampling – the monitoring of defect rectification performance;

(c) Concession sampling – the monitoring of any concession to not carry out maintenance on time;

(d) On-time maintenance sampling – the monitoring of when (flying hours, calendar time, flight cycles, etc.) aircraft and aeronautical products are brought in for maintenance; and

(e) Sample reports of unairworthy conditions and maintenance errors on aircraft and components.

2.5 Quality Audit.

2.5.1 A quality audit is a systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

2.5.2 Audits shall include at least the following quality assurance procedures and processes:

(a) A statement explaining the scope of the audit;

(b) Planning and preparation;

(c) Gathering and recording evidence; and

(d) Analysis of the evidence.

(e) Checks on:

(1) Aircraft undergoing scheduled maintenance;

(2) Airworthiness data;

(3) Stores and storage procedures;

(4) Maintenance facilities; and

(5) The AMO's general airworthiness control procedures.

2.5.3 Techniques that contribute to an effective audit are:

(a) Interviews or discussions with personnel;

(b) A review of published documents;

(c) The examination of an adequate sample of records;

(d) The observation of the activities that make up the operation; and

(e) The preservation of documents and the recording of observations.

2.6 Auditors.

2.6.1 An AMO may decide, depending upon the complexity of the organization, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team shall have relevant maintenance experience.

2.6.2 The responsibilities of the auditors shall be clearly defined in the relevant documentation.

2.7 Auditor's Independence.

2.7.1 Auditors shall not have any day-to-day involvement in the area of the maintenance activity that is to be audited. An AMO may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An AMO whose structure and size does not justify the establishment of full-time auditors may undertake the audit function by the use of part-time personnel from within its own organization or from external sources under the terms of an agreement acceptable to the Authority. In all cases, the AMO shall develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist is familiar with the type of organization and/or maintenance conducted by the AMO.

2.7.2 The AMO's quality assurance programme shall identify the persons within the company who have the experience, responsibility, and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record any concerns or findings and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific timescales; and

(e) Report directly to the quality manager.

2.8 Audit Scope.

2.8.1 An AMO shall monitor compliance with the maintenance procedures it has designed to ensure safe maintenance practices, airworthy aircraft and aeronautical products, and the serviceability of both maintenance and safety equipment. In doing so it shall, as a minimum and where appropriate, monitor:

(a) Organization;

(b) Plans and company objectives;

(c) Maintenance procedures;

(d) AMO certification, including operations specifications;

(e) Supervision;

(f) Mass, balance, and aircraft loading;

(g) Instruments and safety equipment;

(h) Manuals, logs, and records;

(i) Duty time limitations, rest requirements, and scheduling;

(j) Aircraft maintenance – operations interface;

(k) Use of the MEL;

(l) Maintenance programmes and continuing airworthiness;

(m) AD management;

(n) Maintenance accomplishment;

(o) Defect deferral;

(p) Dangerous goods;

(q) Security; and

(r) Training.

2.8.2 Whatever arrangements are made, an AMO shall retain the ultimate responsibility for the quality system and for the completion and follow-up of corrective action.

2.9 Audit Scheduling.

2.9.1 A quality assurance programme shall include a defined audit schedule and a periodic review cycle area by area.

2.9.2 An AMO shall establish a schedule of audits to be completed during a specified calendar period. All aspects of the AMO shall be reviewed within every 12-month period in accordance with the quality assurance programme unless an extension to the audit period is accepted as explained below. An AMO may increase the frequency of audits at its discretion but shall not decrease the frequency without the agreement of the Authority. Audit frequency shall not be decreased beyond a 24-month-period interval.

2.9.3 When an AMO defines the audit schedule, significant changes to the management, organization, operation, technologies, or these regulations shall be considered.

2.9.4 The schedule shall be flexible and shall allow unscheduled audits when trends are identified.

2.9.5 If the independent quality audit function is being conducted by external auditors, the audit schedule shall be shown in the relevant documentation.

2.10 Corrective Action and Follow-Up.

2.10.1 Corrective Action Plans

(a) The quality assurance programme shall include procedures to ensure that corrective action plans are developed in response to findings. These procedures shall monitor corrective actions to verify their effectiveness and ensure their completion. Organizational responsibility and accountability for the implementation of corrective action shall reside with the department cited in the report identifying the finding. The accountable manager shall have the ultimate responsibility for resourcing the corrective action and ensuring, through the quality manager, that the corrective action has re-established compliance with the requirements of the Authority and any additional requirements defined by the AMO.

(b) Subsequent to the quality inspection/audit, the individuals responsible for managing a quality assurance programme shall facilitate the corrective action process by establishing:

(1) The identification and seriousness of any findings or concerns and any need for immediate corrective action;

(2) The analysis of objective evidence to determine the root cause(s) of the finding or concern;

(3) The identification of planned corrective steps that will ensure that the apparent violation or concern does not recur;

(4) An implementation schedule, including a time frame for putting corrective steps in place; and

(5) The individuals or departments responsible for implementing the corrective action.

2.10.2 Follow-Up.

(a) Follow-up audits shall be scheduled when necessary to verify that corrective action has been performed and that it has been effective.

(b) The quality manager shall:

(1) Ensure that corrective action plans are developed in response to findings of non-compliance;

(2) Verify that corrective action plans include the elements outlined in paragraph 2.10.1 of this IS;

(3) Monitor the implementation and completion of corrective action plans;

(4) Provide management with an independent assessment of corrective action plan development, implementation, and completion; and

(5) Initiate scheduled and/or unannounced follow-up evaluations to ensure the effectiveness of corrective steps specified in corrective action plans.

2.11 Management Evaluation.

2.11.1 A management evaluation is a comprehensive, systematic, documented review by management of the quality system and the AMO's policies and procedures. The management evaluation shall consider:

(a) The results of quality inspections, audits, and any other indicators; and

(b) The overall effectiveness of the management organization in achieving stated objectives.

2.11.2 A management evaluation shall identify and correct trends and shall prevent, where possible, future nonconformities. Conclusions and recommendations made as a result of an evaluation shall be submitted in writing to the responsible manager for action. The responsible manager shall be a person who has the authority to resolve deficiencies or discrepancies and take action.

2.11.3 The accountable manager shall decide upon the frequency, format, and structure of internal management evaluation activities.

2.12 Recording.

2.12.1 The AMO shall maintain accurate, complete, and readily accessible records documenting the results of its quality assurance programme. Records are essential data that enable an organization to analyze and determine the root causes of non-compliance so that areas of non-compliance can be identified and addressed.

2.12.2 The following records shall be retained for a period of 5 years:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Special evaluation reports, including trends or other reasons associated with scheduling a special evaluation;

(d) Responses to findings or concerns contained in the reports;

(e) Corrective action plans and reports submitted in response to findings;

(f) Follow-up and closure reports; and

(g) Management evaluation reports.

2.12.3 An AMO shall maintain and secure the records on its premises.

2.12.4 All records shall be made available to the Authority for review.

2.12.5 Proprietary information shall be protected in accordance with applicable laws and regulations.

3.0 Quality Assurance Responsibility for Contractors

3.1 Contractors.

3.1.1 An AMO may decide to contract certain maintenance functions to external organizations for the provision of services related to areas such as:

(a) Maintenance;

(b) Training;

(c) Manual preparation; and

(d) Specialized service.

3.1.2 The ultimate responsibility for the product or service provided by the subcontractor shall remain with the AMO. A written agreement shall exist between the AMO and the contractor clearly defining the safety-related services and quality to be provided. The contractor's safety-related activities relevant to the agreement shall be included in the AMO's quality assurance programme.

3.1.3 The AMO shall ensure that the subcontractor has the necessary authorization or approval when required and the resources and competent personnel to undertake the task.

4.0 Quality-Related Briefings and Training

4.1 General.

4.1.1 An AMO shall establish effective, well-planned, well-resourced, quality-related briefings for all personnel.

4.1.2 Those responsible for managing the quality system shall receive training covering:

(a) An introduction to the concept of the quality system;

(b) Quality management;

(c) The concept of quality assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Reporting and recording; and

(g) The way in which the quality system functions in the organization.

4.1.3 Time shall be provided to train every person involved in quality management and to brief those not responsible for managing the quality system. The allocation of time and resources may be governed by the size and complexity of the AMO.

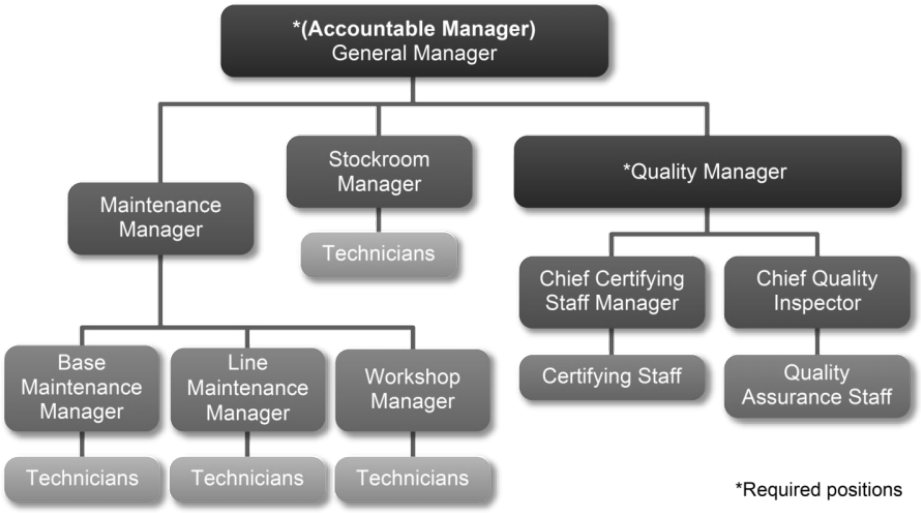
4.2 Sources of Training.

4.2.1 Quality management courses are available from the various National or International Standards Institutions, and an AMO may consider whether to offer such courses to those likely to be involved in the management of quality systems. An AMO with sufficient and appropriately qualified personnel may consider conducting in-house training.

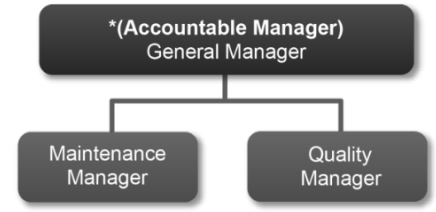
Quality System – Organization Examples

(b) The following diagrams illustrate two typical examples of AMO Quality organizations.

(1) A typical large AMO:



(2) A typical small AMO



IS: 6.3.1.2 HOUSING AND FACILITIES

(a) For ongoing continuing airworthiness of aircraft, the AMO shall have aircraft hangars available that are large enough to accommodate aircraft during continuing airworthiness activities.

(b) Where the hangar is not owned by the AMO, the AMO shall:

(1) Establish proof of authorization to use the hangar;

(2) Demonstrate sufficiency of hangar space to carry out planned base maintenance by preparing a projected aircraft hangar visit plan relative to the continuing airworthiness programme;

(3) Update the aircraft hangar visit plan on a regular basis;

(4) Ensure, for aeronautical product maintenance, that aeronautical product workshops are large enough to accommodate the products on planned continuing airworthiness;

(5) Ensure that aircraft hangar and aeronautical product workshop structures prevent the ingress of rain, hail, ice, snow, wind, dust, etc.;

(6) Ensure that workshop floors are sealed to minimize dust generation; and

(7) Demonstrate access to hangar accommodation for usage during inclement weather for minor scheduled work and/or lengthy defect rectification.

(c) Aircraft maintenance personnel shall be provided with an area where they may study manufacturer's maintenance instructions and complete continuing airworthiness records in a proper manner.

(d) It is acceptable to combine any or all of the above requirements into one office, subject to personnel having sufficient room to perform assigned tasks.

(e) Hangars used to house aircraft together with office accommodation shall be such as to insure a clean, effective and conformable working environment.

(1) Temperatures shall be maintained at a comfortable level.

(2) Dust and any other airborne contamination shall be kept to a minimum and shall not be permitted to reach a level in the work area where visible aircraft or aeronautical product surface contamination is evident.

(3) Lighting shall be such as to ensure each maintenance function may be adequately performed.

(4) Noise levels shall not be permitted to rise to the point of distracting personnel from performing maintenance functions. Where it is impractical to control the noise source, such personnel may be provided with the necessary personal equipment to stop excessive noise from causing distraction during maintenance functions and inspection tasks.

(f) Where a particular maintenance function requires the application of specific environmental conditions different from the foregoing, then such conditions shall be observed. (Specific conditions are identified in the manufacturer's continuing airworthiness instructions.)

(g) Where the working environment for line maintenance deteriorates to an unacceptable level with respect to temperature, moisture, hail, wind, light, dust/other airborne contamination; the particular maintenance function shall be suspended until satisfactory conditions are re-established.

(h) For both base and line maintenance where dust or other airborne contamination results in visible surface contamination, all susceptible systems shall be sealed until acceptable conditions are re-established.

(i) Storage facilities for serviceable aeronautical products shall be clean, well ventilated and maintained at an even dry temperature to minimize the effects of condensation.

(j) Manufacturer standards and recommendations shall be followed for specific aircraft and aeronautical products.

(k) Storage racks shall provide sufficient support for large aeronautical products such that the products are not distorted.

(l) All aeronautical products, wherever practicable, shall remain packaged in protective material to minimize damage and corrosion during storage.

IS: 6.3.1.3 EQUIPMENT, TOOLS, MATERIALS, AND TECHNICAL DATA

(a) All applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness shall be traceable to the National Institute of Standards and Technology (NIST) or equivalent.

(b) Except as provided in IS 6.3.1.3 (a), in the case of foreign manufactured tools, equipment, and test equipment, the standard provided by the county of manufacture may be used if approved by the Authority.

(c) Where the manufacturer specifies a particular tool, equipment, or test equipment then that tool, equipment, or test equipment shall be used unless the manufacturer has identified the use of an equivalent.

(d) Except as provided in IS 6.3.1.3(c), tools, equipment, or test equipment other than that recommended by the manufacturer shall be acceptable based on at least the following:

(1) An AMO shall have procedures in its AMO Procedures Manual if it intends to use equivalent tools, equipment, or test equipment other than that recommended by the manufacturer.

(2) An AMO shall have procedures to include:

(i) Describing the procedures used to establish the competence of personnel who make the determination of equivalency to tools, equipment, or test equipment.

(ii) Conducting and documenting the comparison made between the specification of a tool, equipment or test equipment recommended by the manufacturer and the equivalent tool, equipment, or test equipment proposed.

(iii) Ensuring that the limitations, parameters, and reliability of the proposed tool, equipment, or test equipment are equivalent to the manufacturer's recommended tools, equipment, or test equipment; and

(iv) Ensuring that the equivalent tool, equipment, or test equipment is capable of performing the appropriate continuing airworthiness task and all normal tests, or calibrations, and checking all parameters of the aircraft or aeronautical product undergoing continuing airworthiness or calibration.

(e) An AMO shall have full control (i.e., ownership, lease) of the equivalent tool, equipment, or test equipment.

(f) If authorized to perform base continuing airworthiness, an AMO shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft may be properly inspected.

(g) An AMO shall have a procedure to inspect/service and, where appropriate, calibrate tools, equipment, and test equipment on a regular basis and indicate to users that an item is within any inspection or

service or calibration time limit.

(h) An AMO shall, if it uses a standard (primary, secondary, or transfer standards) for performing calibration, have a procedure to ensure that standard may not be used to perform continuing airworthiness.

(i) An AMO shall use a clear system of labelling all tools, equipment, and test equipment to give information on when the next inspection, service, or calibration is due and to give status information if the item is unserviceable for any other reason that may not be obvious.

(j) An AMO shall use a clear system of labelling all tools, equipment, and test equipment to give information on when such tools, equipment, and test equipment are not used for product acceptance and/or for making a finding of airworthiness.

(k) An AMO shall maintain a register for all calibrated tools, equipment, and test equipment, together with a record of calibrations and standards used.

(l) An AMO shall perform inspection, service, or calibration on a regular basis in accordance with the equipment manufacturers' instructions except where the AMO can show, by results, that a different time period is appropriate in a particular case and is acceptable to the Authority.

IS 6.4.1.1 PERSONNEL

(a) An AMO may be subdivided under individual managers or may be combined in any number of ways, depending on the size of the AMO.

(b) An AMO shall have an accountable manager who is responsible for ensuring that all necessary resources are available to accomplish maintenance required to support the AMO.

(c) An AMO shall have a maintenance manager who is responsible for monitoring the AMO's compliance with the requirements of this part and for requesting remedial action, as necessary, by the base maintenance manager, line maintenance manager, workshop manager, or quality manager, as appropriate. The maintenance manager shall report to the accountable manager.

(d) An AMO shall have, dependent upon the extent of its approval, the following, all of whom shall report to the maintenance manager:

(h) A base maintenance manager shall be responsible for ensuring that all maintenance required to be performed in the hangar, plus any defect rectification performed during base maintenance, is performed to specified design and quality standards.

(i) A line maintenance manager shall be responsible for ensuring that all maintenance required to be performed on the line, including line defect rectification, is performed to the required standards.

(j) A workshop manager shall be responsible for ensuring that all work on aircraft components is performed to required standards.

(k) In small or very small AMOs, one or more of the above positions may be combined subject to approval by the Authority.

(l) An AMO shall have a quality manager who is responsible for:

(m) Monitoring the AMO's compliance with the requirements of this part; and

(n) Requesting remedial action, as necessary, by the base maintenance manager, line maintenance manager, or workshop manager, as appropriate.

(o) An AMO may adopt any title for managerial positions but shall identify to the Authority the titles and persons chosen to carry out these functions.

(p) Where an AMO chooses to appoint managers for all or any combination of the identified functions because of the size of the undertaking, these managers shall report ultimately through either the base maintenance manager, line maintenance manager, workshop manager, or quality manager and, as appropriate, to the accountable manager.

(q) The AMO shall identify the managers specified in this IS and shall submit their credentials to the Authority. To be accepted, such managers shall have relevant knowledge and satisfactory experience related to aircraft and aeronautical product maintenance as appropriate in accordance with these regulations.

(r) An AMO shall notify the Authority within 10 days of any change in personnel or any vacancy in any position listed.

(s) Each AMO holder shall make arrangements to ensure continuity of supervision if operations are conducted in the absence of any required management personnel.

(t) Required management personnel shall be contracted to work sufficient hours such that the management functions are fulfilled.

(u) A person serving in a required management position for an AMO holder may not serve in a similar position for any other AMO holder, unless an exemption is requested by the AMO certificate holder and issued by the Authority.

(v) The minimum entry qualifications for a base maintenance manager are:

1) Shall hold an AMT license issued in accordance with Part 2, Personnel Licensing for the relevant type(s) of aircraft on the AMO Ops Specs (Terms of Approval).
2) 5 years' experience in maintaining the same type of aircraft on the AMO Ops Specs including:
    - 5 years in the capacity of returning aircraft to service; and
    - 2-years supervisory experience maintaining the same category and class of aircraft maintain by the AMO certificate holder.

(w) The minimum entry qualifications for a line maintenance manager are:

1) Shall hold an AMT license issued in accordance with Part 2, Personnel Licensing for the relevant type(s) of aircraft on the AMO Ops Specs (Terms of Approval).
2) 3 years' experience in maintaining the same type of aircraft on the AMO Ops Specs (Terms of Approval) including:
    - 2 years in the capacity of returning aircraft to service; and
    - 1-year supervisory experience maintaining the same category and class of aircraft maintain by the AMO certificate holder.

(x) The minimum entry qualifications for a Quality Manager are:

1) Shall have a minimum 2 years' experience in quality compliance monitoring within in a maintenance organization.
2) Knowledge of and experience with auditing.
3) Knowledge of Safety management system.
4) Knowledge of continuing airworthiness methods.
5) Knowledge of applicable regulations.
6) Those responsible for managing the quality system should receive initial and recurrent training covering:

a) An introduction to the concept of the quality system;
b) Quality management;
c) The concept of quality assurance;
d) Quality manuals;
e) Audit techniques;
f) Reporting and recording; and
g) The way in which the quality system will function in the company.
h) Human factor
i) Additional, training as required by the authority

(y) An AMO shall have a production man-hours plan showing that it has sufficient man-hours for the intended work. If an AMO is authorized for base maintenance, the production man-hours plan shall relate to the aircraft hangar visit plan. An AMO shall regularly update production man-hour plans.

(z) Work performed on any aircraft registered outside Curaçao shall be taken into account if it impacts the production man-hours plan.

(aa) Quality monitoring compliance function man-hours shall be sufficient to meet the requirement of paragraph 6.2.1.14(c) of this part.

(bb) Planners, mechanics, supervisors, and certifying staff shall be assessed for competence by on-the-job evaluation or by examination relevant to their particular role within the AMO before unsupervised work is permitted.

(cc) To assist in the assessment of competence, job descriptions are recommended for each position. The assessment shall establish that:

(dd) Planners are able to interpret maintenance requirements into maintenance functions and have an appreciation that they have no authority to deviate from the aircraft maintenance programme.

(ee) Mechanics are able to carry out maintenance functions to any standard specified in the manufacturer's maintenance instructions and will notify supervisors of mistakes requiring rectification to re-establish required maintenance standards.

(ff) Supervisors are able to ensure that all required maintenance functions are performed, and where not performed or where it is evident that a particular maintenance function cannot be performed to the manufacturer's maintenance instructions, such problems will be reported to and agreed upon by the quality manager.

(gg) Certifying staff are able to determine when the aircraft or aeronautical product shall be approved for return to service.

(hh) Planners, supervisors, and certifying staff shall demonstrate their knowledge of AMO procedures relevant to their particular roles and responsibilities shall be demonstrated.

(ii) Training of certifying staff shall be performed by the AMO or by an institute selected by the AMO. In either case, the AMO shall establish the requirements and curriculum for training, as well as pre-qualification standards for the personnel intended for training. Pre-qualification standards are intended to ensure that the trainee has a reasonable chance of successfully completing any course.

(jj) Examinations shall be set at the end of each training course.

(kk) Initial training shall cover:

(i) Basic engineering theory relevant to the airframe structure and systems fitted to the class of aircraft the AMO maintains;

(2) Specific information on the actual aircraft type or aeronautical product on which the person is intended to become a certifying person, including the impact of repairs and

system or structural defects; and

(ii) Organizational procedures relevant to the certifying staff's tasks.

(ll) Continuation training shall cover changes in AMO procedures and changes in the standard of aircraft and/or aeronautical products maintained.

(mm) The training programme established for maintenance personnel and certifying staff by the AMO shall include:

(i) Details of the number of personnel who will receive initial training to qualify as certifying staff over specified time periods; and

Training in knowledge and skills related to human performance, including coordination with other maintenance personnel and certifying staff

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(nn) (1) For the purposes of subpart 2.6.1.6(a)(1) and 2.6.1.6(a)(3)(ii) personnel, minor scheduled line continuing airworthiness means any minor scheduled inspection/check up to and including a weekly check specified in the aircraft continuing airworthiness programme. For aircraft continuing airworthiness programmes that do not specify a weekly check, the Authority will determine the most significant check that is considered equivalent to a weekly check.

(2) Typical tasks permitted after appropriate task training to be carried out by the 2.6.1.6(a)(1) and 2.6.1.6(a)(3)(ii) personnel, for the purpose of these personnel issuing an aircraft certificate of release to service as specified in 6.5.1.7 as part of minor scheduled line maintenance or simple defect rectification are contained in the following list:

a. Replacement of wheel assemblies.

b. Replacement of wheel brake units.

c. Replacement of emergency equipment.

d. Replacement of ovens, boilers and beverage makers.

e. Replacement of internal and external lights, filaments and flash tubes.

f. Replacement of windscreen wiper blades.

g. Replacement of passenger and cabin crew seats, seat belts and harnesses.

h. Closing of cowlings and refitment of quick access inspection panels.

i. Replacement of toilet system components but excluding gate valves.

j. Simple repairs and replacement of internal compartment doors and placards but excluding doors forming part of a pressure structure.

k. Simple repairs and replacement of overhead storage compartment doors and cabin furnishing items.

l. Replacement of static wicks.

m. Replacement of aircraft main and APU aircraft batteries.

n. Replacement of inflight entertainment system components other than public address.

o. Routine lubrication and replenishment of all system fluids and gases.

p. The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the authority as a simple task.

q. Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers or the use of special tools.

r. Replacement of any other component as agreed by the Authority for a particular aircraft type only where it is agreed that the task is simple.

s. Any other task agreed by the Authority as a simple task for a particular aircraft type. This may include defect deferment when all the following conditions are met:

a. There is no need for troubleshooting; and

b. The task is in the MEL; and

c. The continuing airworthiness action required by the MEL is agreed by the authority to be simple. In the particular case of helicopters, and in addition to the items above, the following:

t. Removal and installation of Helicopter Emergency Medical Service (HEMS) simple internal medical equipment.

u. Removal and installation of external cargo provisions (i.e., external hook, mirrors) other than the hoist.

v. Removal and installation of quick release external cameras and search lights.

w. Removal and installation of emergency float bags, not including the bottles.

x. Removal and installation of external doors fitted with quick release attachments.

y. Removal and installation of snow pads/skid wear shoes/slump protection pads.

(3) No task which requires troubleshooting should be part of the authorized continuing airworthiness actions. Release to service after rectification of deferred defects should be permitted as long as the task is listed above.

(4) The requirement of having appropriate aircraft rated certifying staff qualified as category B1, B2, B3, as appropriate, in the case of aircraft line maintenance does not imply that the organization must have B1, B2 and B3 personnel at every line station. The AMO procedures manual should have a procedure on how to deal with defects requiring B1, B2 or B3 certifying staff.

(5) The Authority may accept that in the case of aircraft line maintenance an organization has only B1, B2 or B3 certifying staff, as appropriate, provided that the Authority is satisfied that the scope of work, as defined in the AMO procedures manual does not need the availability of all B1, B2 and B3 certifying staff. Special attention should be taken to clearly limit the scope of scheduled and non-scheduled line maintenance (defect rectification) to only those tasks that can be certified by the available certifying staff category.

(oo) In accordance with subpart 6.4.1.1(k) and subpart 6.4.1.7, the qualification requirements (basic licence, aircraft ratings, recent experience and continuation training) are identical for certifying staff and for support staff. The only difference is that support staff cannot hold certification privileges when performing this role since during base maintenance the release to service will be issued by category C certifying staff.

Nevertheless, the organization may use as support staff (for base maintenance) persons who already hold certification privileges for line maintenance.

(pp) 1. Holding a Part-2 licence with the relevant type/group rating, does not mean by itself that the holder is qualified to be authorized as certifying staff and/or support staff. The organization is responsible to assess the competence of the holder for the scope of maintenance to be authorized.

2. The sentence, subpart 6.4.1.7(a) "the organization shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organization procedures" means that the person has received training and has been successfully assessed on:

(i) the type of aircraft or component;

(ii) the differences on:

a. the particular model/variant;

b. the particular configuration.

The organization should specifically ensure that the individual competencies have been established with regard to:

(a) relevant knowledge, skills and experience in the product type and configuration to be maintained, taking into account the differences between the generic aircraft type rating training that the person received and the specific configuration of the aircraft to be maintained.

(b) appropriate attitude towards safety and observance of procedures.

(c) knowledge of the associated organization and operator procedures (i.e. handling and identification of components, MEL use, Technical Log use, independent checks, etc.).

3. Some special maintenance tasks may require additional specific training and experience, including but not limited to:

(a) in-depth troubleshooting;

(b) very specific adjustment or test procedures;

(c) rigging;

(d) engine run-up, starting and operating the engines, checking engine performance characteristics, normal and emergency engine operation, associated safety precautions and procedures;

(e) extensive structural/system inspection and repair;

(f) other specialized maintenance required by the maintenance programme.

(g) For engine run-up training, simulators and/or real aircraft should be used.

(h) Fuel Tank Safety training:

Phase 1 – Awareness training.

Phase 2 – Detailed training

Applicable for Post holders working for AMO's managing a/c with max pax capacity of 30 or more

(i) EWIS Training (Electrical Wiring Interconnection System)

Applicable for Post holders working for AMO's managing a/c with max pax capacity of 30 or more.

4. The satisfactory assessment of the competence should be conducted in accordance with a procedure approved by the Authority (item 4.4 of the AMO procedures manual, as described in IS 6.5.1.1.

5. The organization should hold copies of all documents that attest the competence and recent experience for the period described in paragraph 6.4.1.7(j).

Additional information is provided in paragraph 2.6.1.6(b)2 (Part-2).

(qq) The organization issues the certification authorization when satisfied that compliance has been established with the appropriate paragraphs of Part-6 and Part-2. In granting the certification authorization the maintenance organization approved under Part-6 needs to be satisfied that the person holds a valid Part-2 aircraft maintenance licence and may need to confirm such fact with the authority.

(rr) For the interpretation of "6 months of actual relevant aircraft continuing airworthiness experience in any consecutive 2-year period", the provisions of paragraph 2.6.1.6(b)2 of (Part-2) are applicable.

(ss) 1. Continuation training is a two-way process to ensure that certifying staff remain current in terms of procedures, human factors and technical knowledge and that the organization receives feedback on the adequacy of its procedures and continuing airworthiness instructions. Due to the interactive nature of this training, consideration should be given to the possibility that such training has the involvement of the quality department to ensure that feedback is actioned. Alternatively, there should be a procedure to ensure that feedback is formally passed from the training department to the quality department to initiate action.

2. Continuation training should cover changes in relevant requirements such as Part-6, changes in organization procedures and the modification standard of the products being maintained plus human factor issues identified from any internal or external analysis of incidents. It should also address instances where staff failed to follow procedures and the reasons why particular procedures are not always followed. In many cases the continuation training will reinforce the need to follow procedures and ensure that incomplete or incorrect procedures are identified to the company in order that they can be corrected. This does not preclude the possible need to carry out a quality audit of such procedures.

3. Continuation training should be of sufficient duration in each 2-year period to meet the intent of 6.4.1.7(d) and may be split into a number of separate elements. 6.1.4.7(d) requires such training to keep certifying staff updated in terms of relevant technology, procedures and human factors issues which means it is one part of ensuring quality. Therefore, sufficient duration should be related to relevant quality audit findings and other internal / external sources of information available to the organization on human errors in continuing airworthiness. This means that in the case of an organization that maintains aircraft with few relevant quality audit findings, continuation training could be limited to days rather than weeks, whereas a similar organization with a number of relevant quality audit findings, such training may take several weeks. For an organization that maintains aircraft components, the duration of continuation training would follow the same philosophy but should be scaled down to reflect the more limited nature of the activity. For example certifying staff who release hydraulic pumps may only require a few hours of continuation training whereas those who release turbine engine may require a few days of such training. The content of continuation training should be related to relevant quality audit findings and it is recommended that such training is reviewed at least once in every 24-month period.

4. The method of training is intended to be a flexible process and could, for example, include a Part-3 continuation training course, aeronautical college courses, internal short duration courses, seminars, etc. The elements, general content and length of such training should be specified in the maintenance procedure manual unless such training is undertaken by an organization approved under Part-3 when such details may be specified under the approval and cross referenced in the maintenance procedure manual.

(tt) The programme for continuation training should list all certifying staff and support staff and when training will take place, the elements of such training and an indication that it was carried out reasonably on time as planned. Such information should subsequently be transferred to the certifying staff and support staff record as required by paragraph 6.4.1.7(j).

(uu) As stated in paragraph 6.4.1.7(f), except where any of the unforeseen cases of paragraph 6.4.1.1(l)(3) applies, all prospective certifying staff and support staff should be assessed for competence related to their intended duties in accordance with IS:6.4.1.1(p) and IS 6.4.1.4, as applicable.

(vv) 1. The following minimum information as applicable should be kept on record in respect of each staff and support staff:

a. Name
b. Date of Birth
c. Basic Training
d. Type Training
e. Continuation Training
f. Experience
g. Qualifications relevant to the authorization
h. Scope of the authorization
i. Date of first issue of the authorization
j. If appropriate – expiry date of the authorization
k. Identification Number of the authorization

2. The record may be kept in any format but should be controlled by the organization's quality department. This does not mean that the quality department should run the record system.

3. Persons authorized to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorized manner or that such confidential records become accessible to unauthorized persons.

4. The Authority is an authorized person when investigating the records system for initial and continued approval or when the Authority has cause to doubt the competence of a particular person.

(ww) 1. It is the responsibility of the Part-6 organization issuing the category A certifying staff authorization to ensure that the task training received by this person covers all the tasks to be authorized. This is particularly important in those cases where the task training has been provided by a Part-3 organization or by a Part-6 organization different from the one issuing the authorization.

2. "Appropriately approved in accordance with (Part-3)" means an organization holding an approval to provide category A task training for the corresponding aircraft type.

3. "Appropriately approved in accordance with (Part-6)" means an organization holding a maintenance organization approval for the corresponding aircraft type.

(xx) 1. The privilege for a B2 licence holder to release minor scheduled line maintenance and simple defect rectification in accordance with paragraph 2.6.1.6(a)(3)(ii)(Part-2) can only be granted by the Part-6 approved organization where the licence holder is employed/contracted after meeting all the requirements specified in paragraph 6.4.1.7(o). This privilege cannot be transferred to another Part-6 approved organization.

2. When a B2 licence holder already holds a certifying staff authorization containing minor scheduled line maintenance and simple defect rectification for a particular aircraft type, new tasks relevant to category A can be added to that type without requiring another 6 months of experience. However, task training (theoretical plus practical hands-on) and examination/assessment for these additional tasks is still required.

3. When the certifying staff authorization intends to cover several aircraft types, the experience may be combined within a single 6-month period.

For the addition of new types to the certifying staff authorization, another 6 months should be required unless the aircraft is considered similar per paragraph 2.6.1.6(b)2, (Part-2) to the one already held.

4. The term "6 months of experience" may include full-time employment or part-time employment. The important aspect is that the person has been involved during a period of 6 months (not necessarily every day) in those tasks which are going to be part of the authorization.

IS 6.4.1.2 INDOCTRINATION, INITIAL, RECURRENT, SPECIALIZED AND REMEDIAL TRAINING.

(a) An AMO shall provide indoctrination training for employees that includes at least 40 hours of instruction in at least the following subjects:

(1) Regulations of Curaçao – particularly those associated with AMO maintenance functions and authority as reflected on the certificate and the associated operations specifications.

(2) Company manuals, policies, procedures and practices, including quality control processes, particularly those associated with ensuring compliance with continuing airworthiness procedures established to show compliance with this part;

(3) Dangerous goods requirements of subsection 6.4.1.3 of this part, including other local and Curaçao, laws requiring training for different categories of personnel;

(4) Human performance, including coordination with other maintenance personnel and certifying staff;

(5) Maintenance human factors – the elements of which should focus on aviation continuing airworthiness and safety related issues.

(6) Computer systems and software – as applicable to the AMO's continuing airworthiness, overhaul, modification, repair, and inspection systems and procedures, and

(7) Facility security - which shall include company security objectives, specific security procedures, personnel responsibilities, actions to take in the event of a security breach, and the organizational security structure.

(b) Initial training. Each AMO shall provide initial training for employees that includes at least 80 hours of instruction in at least the following subjects consistent with the specific employee position and assigned job activities:

(1) General review;

(2) Specific job task training;

(3) Workshop safety;

(4) Records and recordkeeping;

(5) Materials and parts;

(6) Test equipment, including ground support equipment;

(7) Tools;

(8) Maintenance human factors, and

(9) Any other items as required by the Authority.

(c) Recurrent training. Each AMO shall provide recurrent training for employees that include at least 8 hours of instruction in the subjects below:

(1) Refresher of subjects covered in initial training

(2) New items introduced in the AMO since completion of initial training;

(3) Any other items required by the Authority.

(d) Specialized training. Each AMO shall provide specialized training, including initial and recurrent, for employees whose duties require a specific skill. Examples of specialized skills include: flame and/or plasma spray operations, special inspection or test techniques, special machining operations, complex welding operations, aircraft inspection techniques or complex assembly operations.

(e) Remedial training. Each AMO shall provide remedial training to rectify an employee's demonstrated lack of knowledge or skill by providing information as soon as possible. In some instances, remedial training may consist of an appropriately knowledgeable person reviewing procedures with an employee through on-the-job training. Remedial training shall be designed to fix an immediate knowledge or skill deficiency and may focus on one individual. Successful remedial training should show an individual what occurred, why it occurred, and in a positive manner, how to prevent it from occurring again.

(f) Each AMO, in developing training for employees, shall take into account the various training, experience, and skill levels of:

(1) Employees who hold an AMT licence;

(2) Employees with experience performing similar tasks at another AMO;

(3) Employees with applicable military aviation continuing airworthiness experience; and

(4) Employees with no prior skills, experience, or knowledge.

(g) Each AMO shall have procedures to determine the frequency of recurrent training and the need for specialized and remedial training.

(h) Each AMO shall assess the competency of an employees in performing his or her assigned duties after completion of initial, recurrent, specialized and/or remedial training. This assessment of competency shall be appropriately documented in the employee's training records and shall be accomplished by using any of the following methods, depending upon the size of the AMO, its capabilities and the experience of its employees:

(1) A written test.

(2) The completion of a training course.

(3) A skill test;

(4) A group exercise;

(5) An on-the-job assessment; and

(6) An oral examination in the working environment.

IS: 6.4.1.3 DANGEROUS GOODS TRAINING PROGRAMME

(a) Dangerous goods training, at a minimum, shall include at least 8 hours' instruction in at least the following:

(1) General awareness/familiarization training —. Is designed to provide familiarity with the requirements of this part and the dangerous goods requirements in Parts 8 and 9 of these regulations and to enable the employee to recognize and identify dangerous goods.

(2) Function-specific training —Concerns the specific requirements of this part and the dangerous goods requirements in Parts 8 and 9 of these regulations, or exemptions or special permits issued, relating to the specific functions the employee performs. Includes safety training concerning.

(i) Emergency response.

(ii) Measures to protect the employee from the hazards associated with the dangerous goods to which they may be exposed in the work place, including specific measures the employer has implemented to protect employees from exposure.

(iii) Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing dangerous goods.

(3) Security/awareness training — Addresses the security risks associated with dangerous goods transportation and the methods designed to enhance transportation security. This training shall also include a component covering how to recognize and respond to possible security threats.

(4) In-depth security training ——Includes company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

(5) Any other training required by the Authority.

(6) Recurrent training shall be provided within 24 months of previous training

IS: 6.4.1.4 HUMAN FACTORS AND HUMAN PERFORMANCE

(a) In respect to the understanding of the application of human factors and human performance issues, all maintenance organization personnel should have received an initial and continuation human factors training. This should concern to a minimum:

i. Post-holders, managers, supervisors;
ii. Certifying staff, support staff and mechanics;
iii. Technical support personnel such as planners, engineers, technical record staff;
iv. Quality control/assurance staff;
v. Specialized services staff;
vi. Human factors staff/human factors trainers;
vii. Store department staff, purchasing department staff;
viii. Ground equipment operators.

(b) Initial human factors training should cover all the topics of the training syllabus specified in ICAO DOC 9824 Chapter 5, Appendix B, either as a dedicated course or else integrated within other training. The syllabus may be adjusted to reflect the particular nature of the organization. The

syllabus may also be adjusted to meet the particular nature of work for each function within the organization. For example:

i. small organizations not working in shifts may cover in less depth subjects related to teamwork and communication;
ii. planners may cover in more depth the scheduling and planning objective of the syllabus and in less depth the objective of developing skills for shift working.

All personnel, including personnel being recruited from any other organization should receive initial human factors training compliant with the organization's training standards prior to commencing actual job function, unless their competence assessment justifies that there is no need for such training. Newly directly employed personnel working under direct supervision may receive training within 6 months after joining the maintenance organization.

(c) The purpose of human factors continuation training is primarily to ensure that staff remain current in terms of human factors and also to collect feedback on human factors issues. Consideration should be given to the possibility that such training has the involvement of the quality department. There should be a procedure to ensure that feedback is formally passed from the trainers to the quality department to initiate action where necessary.

Human factors continuation training should be of an appropriate duration in each two-year period in relation to relevant quality audit findings and other internal/external sources of information on human errors in continuing airworthiness available to the organization.

(d) Human factors training may be conducted by the maintenance organization itself, or independent trainers, or any training organizations acceptable to the Authority.

(e) The human factors training procedures should be specified in the maintenance procedure manual.

IS: 6.4.1.5 RECORDS OF MANAGEMENT AND SUPERVISORY PERSONNEL AND CERTIFYING STAFF

(a) The AMO shall keep the following minimum information on record with respect to each management, supervisory, inspection, and certifying person:

(1) Name;
(2) Date of birth;
(3) Basic training;
(4) Type training;
(5) Continuation training;
(6) Experience;
(7) Qualifications relevant to the approval;
(8) Scope of the authorization;
(9) Date of first issue of the authorization;
(10) Expiration date of the authorization (if appropriate); and
(11) Identification number of the authorization.

(b) Records of these individuals shall be controlled.

(c) The number of persons authorized to access the system shall be limited to minimize the possibility of records being altered in an unauthorized manner and to limit confidential records from become accessible to unauthorized persons.

(d) A certifying person shall be given, on request, reasonable access to his or her records.

(e) The Authority is authorized to and may investigate the records system for initial and continued approval, or when the Authority has cause to doubt the competence of a particular certifying person.

(f) The AMO shall keep the records of these individuals for at least 2 years after they have ceased employment with the AMO or after withdrawal of their authorization. Upon request, a certifying person shall be furnished with a copy of his or her record on leaving the AMO.

(g) Authorized persons, apart from the AMO's quality department or continuing airworthiness supervisors/managers, include the Authority.

IS: 6.5.1.1 AMO PROCEDURES MANUAL

(a) The AMO procedures manual shall contain the following content.

1.0 General:

1.1 A general description of the scope of work authorized under the organization's terms of approval;

1.2 A description of the organization's procedures and quality assurance programme or inspection system in accordance with 6.5.1.2 of this part.

1.3 A general description of the organization's facilities;

1.4 the names, tasks, duties and responsibilities of the person or persons required to ensure the maintenance organization is in compliance with the regulations of Curaçao;

1.5 A description of the procedures used to establish the competence of maintenance personnel as required by 6.5.1.2 and 6.4.1.3 of this part;

1.6 A description of the method used for the completion and retention of the *continuing airworthiness records* required by 6.5.1.8 of this part.

1.6.1 The records shall show that all requirements for signing of the maintenance release have been met.

1.6.2 The records shall be kept for a minimum period of one year after signing approval for return to service

1.7 A description of the procedure for preparing the approval for return to service and the circumstances under which it is to be signed;

1.8 The names of personnel authorized to sign the approval for return to service and the scope of their authorization. The person signing the approval for return to service shall be qualified in accordance with Part 2 of these regulations;

1.9 A description, when applicable, of the additional procedures for complying with an operator's maintenance procedures and requirements;

1.10 A description of the procedures with respect to aeroplanes and helicopters, whereby information on faults, malfunctions, defects, and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is transmitted to the organization responsible for the type design of that aircraft and to the operator's airworthiness authority.

1.11 A description of the procedure for receiving, assessing, amending, and distributing within the maintenance organization all necessary airworthiness data from the TC holder or type design organization;

1.12 If the manual is also used to comply with the requirements of the maintenance programme for an aircraft, a maintenance programme.

1.13 A description of the AMO's SMS, required by 6.4.1.6 and 1.6 of these regulations, with reference to a separate manual, or inclusion of the SMS practices within the AMO Procedures Manual

2.0 Management

2.1 A statement signed by the accountable manager confirming that the manual defines the organization's procedures and associated personnel responsibilities and will be complied with at all times;

2.2 An organization chart showing the associated chains of responsibility of the person or persons nominated to ensure the organization is in compliance with the applicable regulations.

2.3 Procedures for notifying the Authority regarding changes to the organization's activities, approval, location, or personnel;

2.4 liaison or contractual arrangements with other organizations that provide services associated with the approval; and

2.5 Procedures for amending the manual.

3.0 Maintenance Procedures

3.1 Supplier evaluation procedure;

3.2 Acceptance/inspection of aeronautical products, including materials from outside contractors;

3.3 Storage, labelling/tagging, and release of aeronautical products and materials to aircraft maintenance;

3.4 acceptance of tools and equipment;

3.5 Calibration of tools and equipment, including alternate tools;

3.6 Use of tools and equipment by personnel (including alternate tools);

3.7 Cleanliness standards of maintenance facilities;

3.8 Maintenance instructions and relationship to aircraft or aeronautical product manufacturers' service information, including updating and availability to personnel;

3.9 Repair procedures;

3.10 Procedures for compliance with an operator's maintenance programme;

3.11 AD procedures;

3.12 Mandatory continuing airworthiness information handling procedures

3.13 Optional modification procedures;

3.14 Maintenance documentation in use and completion of same;

3.15 Technical record control;

3.16 Procedures for handling of defects arising during maintenance;

3.17 Issue of the approval for return to service required by 6.5.1.7 of this part

3.18 Records for the operator (if the organization is not an operator itself);

3.19 Reporting of defects and other occurrences as required by the Authority;

3.20 Return of defective aeronautical products to store;

3.21 Control of defective aeronautical products sent to outside contractors for overhaul, etc.;

3.22 Control of computer maintenance record systems;

3.23 Reference to specific maintenance procedures such as engine running procedures, aircraft pressure run procedures, aircraft towing procedures; and aircraft taxiing procedures;

3.24 Contract/subcontract procedures;

3.25 Human factors.

3.26 Procedures that designate the individual responsible for briefing the arriving shift's supervisors and personnel of the exact status of in-progress maintenance.

3.27 Rest and duty limitations for persons performing maintenance functions

3.28 Line maintenance procedures (when applicable)

3.28.1 Control of aircraft components, tools, equipment, etc.;

3.28.2 Procedures related to servicing, fueling, de-icing, etc.;

3.28.3 Control of defects and repetitive defects;

3.28.4 Pooled parts and loan parts; and

3.28.5 Return of defective parts removed from aircraft.

3.29 Inspection procedures, appropriate to the ratings sought, for:

3.29.1 **Incoming inspections.** A system or method for the inspection of incoming aeronautical products and/or materials, including the inspection of:

(a) New aeronautical products and/or materials received from the manufacturer for:

(1) Shipping damage;

(2) Traceability of life limits, if applicable; and

(3) Identification and tagging of parts to manufacturer's invoices.

(b) Overhauled or repaired parts from an approved agency for:

(1) Shipping damage;

(2) Traceability of life limits, if applicable; and

(3) Traceability of overhaul records and/or AATs.

© Items sent out for contracted maintenance functions for:

(1) Shipping damage; and

(2) Conformity to the Authority's and the manufacturer's specifications, including material type and state of preservation.

(d) Items of unknown origin for.

(1) Shipping damage;

(2) Conformity to the Authority's and the manufacturer's specifications, drawings, or dimensions, including material type and state of preservation;

(3) Airworthiness status, including ADs and traceability of life limits, if applicable; and

(4) Functional tests, as applicable.

3.29.2 Preliminary inspections. A system or method for the preliminary inspection of aeronautical products to be repaired for.

(a) State of preservation;

(b) Functional operation prior to disassembly, if applicable;

© Traceability of life limits and/or time since overhaul, if applicable; and

(d) Identification and tagging of parts to manufacturer's invoices.

3.29.3 Hidden damage inspections. A system or method for inspecting damaged parts for hidden damage that ensures items are disassembled as necessary and inspected for hidden damage in adjacent areas

3.29.4 Progressive inspections. A system or method of inspection, testing, and/or calibration during and after disassembly and at various stages while work is in progress.

3.29.5 Final inspections. A system or method for final inspection, testing, and/or calibration of units when work is completed.

4.0 Quality Assurance Programme or Inspection System

4.1 Quality audit of organization procedures;

4.2 Quality audit of aircraft;

4.3 Quality audit findings.

4.4 Remedial action procedures.

4.5 Qualification and training procedures for certifying staff issuing an approval for return to service.

4.6 Records of certifying staff;

4.7 Qualification and training procedures for quality audit personnel;

4.8 Qualification and training procedures for mechanics;

4.9 Exemption process control;

4.10 Concession control for deviation from the organization's procedures;

4.11 Qualification procedure for specialized activities such as non-destructive testing NDT, welding, etc.;

4.12 When required, control of the manufacturer's working teams based at the premises of the organization, engaged in tasks that interface with activities included in the approval

4.13 quality audit of sub-contractors (or acceptance of accreditation by third parties, e.g. use of NDT organizations approved by a State regulatory body other than the airworthiness authority).

4.14 Quality assurance audit procedures, including the following principal audit checks:

4.14.1 Checks on aircraft while undergoing scheduled maintenance for:

(a) Compliance with maintenance programme and mandatory continuing airworthiness requirements and ensuring that only work instructions reflecting the latest amendment standards are used;

(b) Completion of work instructions, including the transfer of defects to additional worksheets, their control, and final collation; action taken with respect to items carried forward and/or not completed during the particular inspection or maintenance task;

(c) Compliance with the manufacturer's AMM and the organization's procedures;

(d) Standards of inspection and workmanship;

(e) The condition of corrosion prevention and control treatments and other protective processes,

(f) Aircraft maintenance which is not limited to the normal working day; procedures adopted during shift changeover of personnel to ensure continuity of inspection and responses; and

(g) Precautions taken to ensure that, on completion of any work or maintenance, all aircraft are checked for loose tools and miscellaneous small items such as split pins, wire, rivets, nuts, bolts, and other debris, and for general cleanliness and housekeeping.

4.14.2 Checks on airworthiness data for.

(a) Adequacy of aircraft manuals and other technical information appropriate to each aircraft type, including aeronautical products and other equipment, and the continuing receipt of revisions and amendments and availability of continuing airworthiness data (e.g., ADs, life limits);

(b) Assessment of the manufacturer's service information, determining its application to aircraft types maintained-and the recording of compliance or embodiment;

(c) Maintenance of a register of manuals and technical literature held within the organization, with their locations and current amendment status; and

(d) Assurance that all the organization's manuals and documents, both technical and procedural, are kept up-to-date.

4.14.3 Checks on stores and storage procedures for.

(a) Adequacy of stores and storage conditions for rotatable products, small parts, perishable items, flammable fluids, engines, and bulky assemblies in accordance with the specifications adopted by the organization;

(b) Adequacy of stores and storage conditions for rotatable products, small parts, perishable items, flammable fluids, engines, and bulky assemblies in accordance with the specifications adopted by the organization;

(c) The "batch recording" of goods received and identification of raw materials, the acceptance of part life items into stores, and the requisition procedures for the issue of items from stores; and

(d) Labelling procedures, including:

(1) The use of serviceable/unserviceable/ repairable labels and their certification and final disposal after installation;

(2) The internal release procedure to be used when components are to be forwarded to other locations within the organization;

(3) The procedure to be adopted for the release of goods or overhauled items to other organizations (should also cover items being sent away for rectification or calibration);

(4) The procedure for the requisitioning of tools together with the system for ensuring that the location of tools and their calibration and continuing airworthiness status are known at all times; and

(5) Control of shelf life and storage conditions of stores, control of the free issue dispensing of standard parts, identification, and segregation

4.14.4 Checks on continuing airworthiness facilities for:

(a) Cleanliness; state of repair; correct functioning of hangars, hangar facilities, and special equipment; and the continuing airworthiness of mobile equipment

(b) Adequacy and functioning of special services and techniques, including welding, NDI, weighing, and painting;

(c) Viewer/printer equipment provided for use with electronic media ensuring that regular continuing airworthiness takes place and an acceptable standard of screen reproduction and printed copy is achieved;

(d) Adequacy of special tools and equipment appropriate to each type of aircraft, including aeronautical products and other equipment; and

(e) Calibration and continuing airworthiness of tools and measuring equipment; and environmental controls.

4.15.5 Checks on the AMO's general airworthiness control procedures for:

(a) Monitoring of the practices of the organization with respect to scheduling or preplanning continuing airworthiness tasks to be performed in the open air, and the adequacy of the facilities provided;

(b) Operation of the system for service difficulty reporting required by the Authority;

(c) Authorization of personnel to issue an approval for return to service with respect to inspections and continuing airworthiness tasks and the effectiveness and adequacy of training, including continuation training and the recording of personnel experience, training, and qualifications for grant of authorization;

(d) The effectiveness of technical instructions issued to continuing airworthiness personnel, including:

(1) Adequacy of personnel in terms of qualifications, numbers, and ability in all areas required to support the activities included in the approval granted by the airworthiness authority;

(2) Efficacy and completeness of the quality assurance programme;

(3) Maintaining logbooks and other required records and confirming that these documents are assessed in accordance with the requirements of Curaçao;

(4) Ensuring that repairs are performed only in accordance with approved repair schemes and practices;

(5) Control of subcontractors;

(6) Control of activities subcontracted, such as management of the operator's continuing airworthiness programme;

(7) Monitoring of exemption process control and concession control for deviation from the organization's procedures; and

(8) Follow-up on internal reporting/occurrences.

5.0 System of Standard Forms and Documents

5.1 Introduction.

5.1.1 An AMO shall develop a system of standard forms and documents that it intends to utilize, including forms and documents for functions associated with activities undertaken under the terms, conditions, and limitations of the approval, such as:

(a) Daily maintenance;

(b) Line maintenance;

(c) Contract continuing airworthiness;

(d) Work performed at another location;

(e) Work performed for an air operator;

(f) Major modification and repair of aeronautical products;

(g) Approval for return to service after major repairs;

(h) Inspections and in-progress continuing airworthiness;

(i) Corrective actions; and

(j) Technical record control.

5.2 Examples of forms and documents.

5.2.1 The AMO Procedures Manual shall include examples of standard forms and documents, instructions for completing the forms, and procedures for retaining the forms and documents.

5.2.2 The instructions for completing a form may be on the form or in a separate document.

5.2.3 The number and content of the forms may depend on the size and complexity of the organization and the variety of aircraft and aeronautical products for which ratings are issued.

5.2.4 Revisions or additions to the forms section of the AMO Procedures Manual shall follow the documented revision procedures.

5.2.5 The AMO Procedures Manual may refer to a separate document of forms that provides samples of the forms with instructions.

5.2.6 The forms included in the manual shall be samples of each form, tag, and label described in the procedures within the AMO Procedures Manual, such as a.

(a) Work order;

(b) Discrepancy log;

(c) Record of employee training;

(d) Calibration report;

(e) Approval for return to service;

(f) Mechanical reliability report; and

(g) Malfunction and defect report.

IS: 6.5.1.7 AIRWOTHINESS APPROVAL TAG (CCAA FORM 1)

APPROVAL FOR RETURN TO SERVICE OF AN AIRCRAFT OR AERONAUTICAL PRODUCT

(b) The following form shall be used when an AMO approves an aeronautical product for return to service.

<table>
<tr><td colspan="2"> 
CCAA / Curaçao</td><td colspan="4">2. Approval for Return to Service
CCAA Form 1
Airworthiness Approval Tag</td><td colspan="2">3. System tracking ref. number:</td></tr>
<tr><td colspan="6">4. Organization name and address:</td><td colspan="2">5. Work order, contract, or invoice number:</td></tr>
<tr><td>6. Item:</td><td>7. Description:</td><td>8. Part number:</td><td>9. Eligibility:
(Installer shall check eligibility with applicable technical data)</td><td>10. Quantity:</td><td>11. Serial/ batch number:</td><td>12. Status/ work:</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7">13. Remarks:</td></tr>
<tr><td colspan="3">14. Certifies that the items identified above were manufactured in conformity to:
☐ Approved design data and are in condition for safe operation
☐ Non-approved design data as specified in block 13</td><td colspan="4">19. Certifies that unless otherwise specified in block 13 (or attached), the work identified in block 12 and described in block 13 was accomplished in accordance with CCAA airworthiness regulations and, with respect to that work, the item(s) is (are) approved for return to service.
☐ 5.6.1.3, Return to Service
☐ Other regulation specified in block 13</td></tr>
<tr><td colspan="2">15. Authorized signature:</td><td>16. Approval/authorization number:</td><td colspan="2">20. Authorized signature:</td><td colspan="2">21. Approval/certificate number:</td></tr>
<tr><td colspan="2">17. Name (typed or printed):</td><td>18. Date (dd/mm/yyyy):</td><td colspan="2">22. Name (typed or printed):</td><td colspan="2">23. Date (dd/mm/yyyy):</td></tr>
</table>

CCAA Form 1

Instructions for Completion of an Approval for Return to Service and/or Airworthiness Approval Tag

Block 1. [STATE] (pre-printed).

Block 2. Approval for Return to Service/Airworthiness Approval Tag (pre-printed).

Block 3. System tracking reference number.

(c) Fill in the unique number established by the Authority-approved numbering system.

(d) If the form is computer generated, it may be produced as programmed by the computer.

Note: Shippers shall establish a numbering system for traceability in order to fill out block 3 of the form. This system shall also provide a means of cross referencing the number(s) and product(s) being shipped.

Block 4. Organization name and address. Fill in the full name and address of the organization.

Block 5. Work order, contract, or invoice number.

(e) Fill in the contract, work order, or invoice number related to the shipment list or approval for return to service and state the number of pages attached to the form, including dates, if applicable. If the shipment list contains the information required in blocks 6 through 12, the respective blocks may be left blank if an original, or true copy, of the list is attached to the form. In this case, the following statement shall be entered in block 13: "This is the certification statement for the aeronautical products listed on the attached document dated _____, containing pages _____ through _____."

(f) In addition, the shipment list shall cross reference the number located in block 3. The shipment list may contain more than one item, but it is the responsibility of the shipper to determine whether the Authority of the importing jurisdiction will accept bulk shipments under a single AAT. If the Authority does not permit bulk shipments under a single form, blocks 6 through 12 of each form shall be filled in for each product shipped.

Block 6. Item. When the AAT is issued, a single item number or multiple item numbers may be used for the same product number. Multiple items shall be numbered in sequence. If a separate listing is used, enter "List Attached."

Note: The blank form may be computer generated. However, the format shall not be changed, nor may any words be added or deleted. Pre-printing of some information is permissible (e.g., the information in blocks 1, 2, 3, 4, and 19). The size of the blocks may be varied slightly, but the form shall remain readily recognizable. The form may also be reduced in overall size.

Block 7. Description. Enter the name or description of the product/part as shown on the design data. For products/parts that do not have design data available, the name as referenced in a product catalogue, overhaul manual, etc., may be used.

Block 8. Part number. Enter each part number of the product.

Block 9. Eligibility. State the aircraft or aeronautical product make and model on which the parts manufacture approval is eligible for installation. If a part is eligible for installation on more than one model, enter the words "to be verified by installer" or "TBV by installer." Where parts are TSO aeronautical products, state "TSO Aeronautical Product N/A" since eligibility for installation for TSO aeronautical products is determined at the time of installation.

Note: For TSO aeronautical products, the AAT does not constitute authority to install an aeronautical product on a particular aircraft. The user or installer is responsible for confirming that the product is eligible for installation by reference to overhaul manuals, service bulletins, etc., as applicable.

Block 10. Quantity. State the quantity of each aeronautical product shipped.

Block 11. Serial/batch number. State the serial number or equivalent (identified on the product) on the form for each aeronautical product shipped. If a serial number or equivalent is not required on the part, enter "N/A."

Block 12. Status/work. Enter "Newly overhauled" for those products that have not been operated or placed in service since overhaul. Enter "Prototype" for products/parts submitted to support type certification programmes. Other permissible/appropriate terms to describe the status of the product/part include: "Inspected," "Repaired," "Overhauled," or "Modified."

Block 13. Remarks. Enter any information or references to support documentation necessary for the user or installer to make a final determination of airworthiness of the aeronautical products listed in block 7. Each statement shall specify which item identified in block 6 is related. Examples of the type of information to be supplied are as follows:

(g) Any restrictions (e.g., prototype only).

(h) Alternative approved part number.

(i) Compliance or non-compliance with ADs or SBs.

(j) Information on life-limited parts.

(k) Manufacturing, cure, or shelf-life data.

(l) Drawing and revision level.

(m) When used for conformity, the word "CONFORMITY" shall be entered in capital letters. In addition, an explanation of the product's/part's use (e.g., pending approved data, TC pending, for test only) should be provided. Information concerning a conformity inspection such as design data, revision level, date, project number, and special instructions shall be included in this block.

(n) When used for spare parts, identify whether the parts are from the original manufacturer or another approved source and are made to the TSO. In addition, if the AAT is for spare parts or subcomponents of a CAA-approved replacement part, the TSO authorization should be listed in block 13.

(o) When used for return to service, this block should contain the data required by 5.6.1.2 of the aviation regulations.

Blocks 14, 15, 16, 17 and 18. These blocks shall not be used for maintenance tasks by AMOs certificated under Part 6 of the aviation regulations. These blocks are specifically reserved for return/certification of newly manufactured items in accordance with certification procedures of products and parts of the State of Design or State of Manufacture.

Block 19. Return to service. The information is pre-printed in the block.

Block 20. Authorized signature. The signature of the individual authorized by the air agency, the air operator, or the manufacturer shall be entered in accordance with 5.6.1.1 of the aviation regulations. The approval signature shall be manually applied at the time and place of issuance.

Block 21. Approval/certificate number. Enter the AMO certificate or AOC number. For manufacturers returning to service after overhauling aeronautical products, the production approval number shall be entered.

Block 22. Name. Enter the typed or printed name of the individual identified in block 20.

Block 23. Date. Enter the date the approval for return to service is signed and the product is returned to service. This does not need to be the same as the shipping date, which may occur at a later date.

IS: 6.5.1.9 AIRWORTHINESS DATA- INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

(a) The AMO shall be in receipt of all airworthiness data appropriate to support the work performed from the Authority, the aircraft or aeronautical product design organization, and any other approved design organization in the State of Manufacture or State of Design, as appropriate. Some examples of airworthiness-related documents are:

(b) Applicable Aviation regulations.

(1) Associated advisory material.

(2) ADs.

(3) The manufacturers' AMM.

(4) Repair manuals.

(5) Supplementary structural inspection documents.

(6) SBs.

(7) Service letters.

(8) Service instructions.

(9) Modification leaflets.

(10) The aircraft continuing airworthiness programme; and.

(11) The NDT Manual.

(c) Paragraph 6.5.1.9(a) primarily refers to maintenance data that has been transcribed from the Authority and all TC holders into the AMO's format, such as customized maintenance cards or computer-based data.

(d) To obtain acceptance from the Authority, it quires that accuracy of transcription is assured.

(e) A procedure shall be established to monitor the amendment status of all data, and to maintain a check that all amendments are being received, by subscribing to any document amendment scheme.

(f) Airworthiness data shall be made available in the work area in close proximity to the aircraft or aeronautical product being maintained for supervisors, mechanics, and certifying staff to study.

(g) Where computer systems are used to maintain airworthiness data, the number of computer terminals shall be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.

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CURAÇAO CIVIL AVIATION REGULATIONS

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PART 7 – INSTRUMENTS AND EQUIPMENT

7.1 GENERAL

Note: The requirements of this part are written such that approvals are granted to AOC holders through operations specifications, and approvals are granted to non-AOC holders, such as general aviation operators, through letters of authorisation.

7.1.1.1 APPLICABILITY

(a) This part prescribes the minimum instrument and equipment requirements for all aircraft in all operations.

(b) The requirements of this part use the following key designators:

(1) AAC. All aircraft – non-AOC holders and AOC holders appropriate to the subject of the regulations, e.g., an AAC regulation may only refer to seaplanes but will include seaplanes operated by non-AOC holders and AOC seaplanes.

(2) AOC. AOC holders are operators engaged in commercial air transport. Where AOC requirements are more detailed, the AOC requirements will be followed.

7.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

7.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AAC –** all aircraft

(2) **ACAS –** airborne collision avoidance system

(3) **AED –** automated external defibrillator

(4) **ADF –** automatic direction finder

(5) **ADFR –** automatic deployable flight recorder

(6) **ADRS –** aircraft data recording system

(7) **AFM –** Aircraft Flight Manual

(8) **AIR –** airborne image recorder

(9) **AIRS –** airborne image recording system

(10) **AOC –** air operator certificate

(11) **ASE –** altimetry system error

(12) **ATS –** air traffic service(s)

(13) **CARS –** cockpit audio recording system

(14) **CAT I –** Category I

(15) **CAT II –** Category II

(16) **CAT III –** Category III

(17) **CG –** centre of gravity

(18) **CVR –** cockpit voice recorder

(19) **CVS –** combined vision system

(20) **DH –** decision height

(21) **DLC –** data link communications

(22) **DLR –** data-link recorder

(23) **DLRS –** data-link recording system

(24) **DME –** distance measuring equipment

(25) **EASA –** European Union Aviation Safety Agency

(26) **ECAM –** electronic centralised aircraft monitor

(27) **EFB –** electronic flight bag

(28) **EFIS –** electronic flight instrument systems

(29) **EICAS –** engine indication and crew alerting system

(30) **ELT –** emergency locator transmitter

(31) **EUROCAE –** European Organisation for Civil Aviation Equipment

(32) **EVS –** enhanced vision system

(33) **FDR –** flight data recorder

(34) **FL –** flight level

(35) **GPWS –** ground proximity warning system

(36) **HUD –** head-up display

(37) **ICAO –** International Civil Aviation Organization

(38) **IFR –** instrument flight rules

(39) **ILS –** instrument landing system

(40) **IMC –** instrument meteorological conditions

(41) **LRNS –** long-range navigation system

(42) **MEL –** minimum equipment list

(43) **MHz –** megahertz

(44) **MLS –** microwave landing system

(45) **MNPS –** minimum navigation performance specifications

(46) **OM –** Operations Manual

(47) **PBC –** performance-based communication

(48) **PBCS –** performance-based communication and surveillance

(49) **PBE –** protective breathing equipment

(50) **PBN –** performance-based navigation

(51) **PBS –** performance-based surveillance

(52) **PIC –** pilot-in-command

(53) **RCP –** required communication performance

(54) **RNAV –** area navigation

(55) **RSP –** required surveillance programme

(56) **RTCA –** Radio Technical Commission for Aeronautics

(57) **RVR –** runway visual range

(58) **RVSM –** reduced vertical separation minimum

(59) **SARPs –** Standards and Recommended Practices

(60) **STPD –** Standard Temperature Pressure Dry

(61) **SVS –** synthetic vision system

(62) **TAWS –** terrain awareness warning system

(63) **TC –** type certificate

(64) **TVE** – total vertical error

(65) **VFR –** visual flight rules

(66) **VOR –** VHF omnidirectional radio range

7.1.1.4 GENERAL INSTRUMENT AND EQUIPMENT REQUIREMENTS

(a) [AAC] In addition to the minimum equipment necessary for the issuance of a certificate of airworthiness, the instruments, equipment, and flight documents prescribed in this part shall be installed or carried, as appropriate, in aircraft according to the aircraft used and to the circumstances under which the flight is to be conducted.

(b) [AAC] All required instruments and equipment shall be approved and installed in accordance with applicable airworthiness requirements.

(c) [AAC] Prior to operation in Curaçao of any aircraft that is not registered in Curaçao and that uses an airworthiness inspection programme approved or accepted by the State of Registry, the owner or operator shall ensure that instruments and equipment required by Curaçao but not installed in the aircraft are properly installed and inspected in accordance with the requirements of the State of Registry.

(d) [AOC] No person shall commence a flight in commercial air transport operations unless the required equipment:

(1) Meets the minimum performance standard, all operational and airworthiness requirements, and the relevant provisions of ICAO Annex 10, Volume IV;

(2) Is installed such that the failure of any single unit required for either communication or navigation purposes, or both, will not result in the inability to communicate and/or navigate safely on the route being flown; and

(3) Is in operable condition for the type of operation being conducted, except as provided in the MEL.

(e) [AAC] If equipment is to be used by one flight crew member at that flight crew member's station during flight, it shall be installed so as to be readily operable from that flight crew member's station.

(f) [AAC] When a single item of equipment is required to be operated by more than one flight crew member, it shall be installed so that the equipment is readily operable from any station at which the equipment is required to be operated.

7.2 FLIGHT INSTRUMENTS

7.2.1.1 GENERAL REQUIREMENTS

(a) [AAC] All aircraft shall be equipped with flight instruments that enable the flight crew to:

(1) Control the flight path of the aircraft;

(2) Carry out any required procedural manoeuvres; and

(3) Observe the operating limitations of the aircraft in the expected operating conditions.

(b) [AAC] When a means is provided for transferring an instrument from its primary operating system to an alternative system, the means shall include a positive positioning control and shall be marked to indicate clearly which system is being used.

(c) [AAC] Those instruments that are used by any one pilot shall be so arranged as to permit the pilot to see the indications readily from either pilot station, with the minimum practicable deviation from the position and line of vision the pilot normally assumes when looking forward along the flight path.

7.2.1.2 MINIMUM FLIGHT INSTRUMENTS

(a) [AAC] No person may operate any powered aircraft unless the aircraft is equipped with the following flight instruments:

(1) An airspeed indicating system calibrated in knots, miles per hour, or kilometers per hour;

(2) A sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight;

(3) An accurate timepiece indicating time in hours, minutes, and seconds;

(i) For non-AOC operations, either equipage or carriage is acceptable;

(4) A magnetic compass; and

(5) Any other equipment as prescribed by the Authority.

Note: This applies to both VFR and IFR operations in addition to the requirements for IFR operations prescribed elsewhere in this part.

(b) [AAC] No person may operate an aircraft in VFR flight as a controlled flight unless the aircraft is equipped with the instruments required by 7.2.1.4 of this part.

7.2.1.3 INSTRUMENTS FOR OPERATIONS REQUIRING TWO PILOTS IN DAY VISUAL FLIGHT RULES

(a) [AOC] Whenever two pilots are required, each pilot's station shall have separate flight instruments as follows:

(1) An airspeed indicating system calibrated in knots, miles per hour, or kilometers per hour;

(2) A sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight;

(3) A vertical speed indicator;

(4) A turn and slip indicator, or a turn coordinator incorporating a slip indicator;

(5) An attitude indicator;

(6) A stabilised direction indicator; and

(7) Any other equipment as required by the Authority.

7.2.1.4 INSTRUMENTS REQUIRED FOR INSTRUMENT FLIGHT RULES OPERATIONS

(a) [AAC] All aircraft when operated in IFR, or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:

(1) A means of measuring and displaying:

(i) Magnetic heading (standby compass);

(ii) The time in hours, minutes, and seconds;

(A) For non-AOC operations, either equipage or carriage is acceptable;

(iii) Barometric altitude;

(iv) Indicated airspeed, with a means of preventing malfunctioning due to either condensation or icing;

(v) Turn and slip;

(vi) Aircraft attitude;

(vii) Stabilised aircraft heading;

Note: The requirements of paragraphs 7.2.1.4(a)(v), (vi), and (vii) of this subsection may be met by combinations of instruments or by integrated flight director systems, provided that the safeguards against total failure, inherent in the three separate instruments, are retained.

(viii) Whether the supply of power to the gyroscopic instruments is adequate;

(ix) Outside air temperature; and

(x) Rate-of-climb and descent.

(2) In addition, aeroplanes with a maximum certificated take-off mass of over 5 700 kg or equipped with one or more turbojet engines shall be equipped with:

(i) An emergency power supply for electrically operated attitude indicating instruments:

(A) Independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the PIC; and

(B) Automatically operative after the total failure of the main electrical generating system and clear indication given on the instrument panel that the attitude indicator(s) is being operated by emergency power;

(ii) For aeroplanes with advanced flight deck automation systems (glass flight decks), system redundancy that provides the flight crew with attitude, heading, airspeed, and altitude indications in case of failure of the primary system or display; and

(iii) Such additional instruments or equipment as may be prescribed by the Authority.

(b) [AOC] All aircraft when operated in IFR, or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:

(1) For all aeroplanes:

(i) A magnetic compass;

(ii) An accurate timepiece indicating the time in hours, minutes, and seconds;

(iii) Two sensitive pressure altimeters with counter drum-pointer or equivalent presentation;

Note: Neither three-pointer nor drum-pointer altimeters satisfy this requirement.

(iv) An airspeed indicating system with a means of preventing malfunctioning due to either condensation or icing;

(v) A turn and slip indicator aeroplanes or a slip indicator for helicopters;

(vi) Attitude indicator (artificial horizon);

(vii) A heading indicator (directional gyroscope);

Note: The requirements of paragraphs 7.2.1.4(b)(v), (vi), and (vii) of this subsection may be met by combinations of instruments or by integrated flight director systems provided that the safeguards against total failure, inherent in the separate instruments are retained.

(viii) A means of indicating whether the supply of power to the gyroscopic instruments is adequate;

(ix) A means of indicating in the flight crew compartment the outside air temperature; and

(x) A rate-of-climb and descent indicator; and

(2) In addition, aeroplanes with a maximum certificated take-off mass exceeding 5 700 kg or equipped with one or more turbojet engines shall be equipped with:

(i) An emergency power supply for electrically operated attitude indicating instruments;

(ii) Independent of the main electrical generating system for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the PIC, and

(iii) Automatically operative after the total failure of the main electrical generating system and clear indication given on the instrument panel that the attitude indicator(s) is being operated by emergency power; and

(iv) Such additional instruments or equipment as may be prescribed by the Authority.

(c) [AOC] No person may operate an aeroplane under IFR, or under VFR over routes that cannot be navigated by reference to visual landmarks, unless the aeroplane is equipped with navigation equipment in accordance with the requirements of ATS in the area(s) of operation.

(1) [AOC] No person may conduct single-pilot IFR operations unless the aeroplane is equipped with an autopilot with at least altitude hold and heading mode.

(2) [AAC] No person may operate an aeroplane under IFR unless the aeroplane is equipped with an audio selector panel accessible to each required flight crew member.

(3) [AOC] No person may conduct single-pilot IFR or night operations in commercial air transport operations unless the aeroplane is equipped with a headset with boom microphone or equivalent and a transmit button on the control wheel.

(d) [AAC] All helicopters, unless otherwise indicated, when operated in IFR or when the helicopter cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:

(1) For all helicopters:

(i) A magnetic compass;

(ii) The time in hours, minutes, and seconds;

(A) For non-AOC operations, either equipage or carriage is acceptable;

(iii) A pressure altimeter:

(A) [AAC] A sensitive pressure altimeter;

(B) [AOC] Two sensitive pressure altimeters;

Note: Due to the long history of misreadings, the use of drum-pointer altimeters is not recommended.

(iv) An airspeed indicating system with a means of preventing malfunctioning due to either condensation or icing;

(v) A slip indicator;

(vi) Attitude indicator (artificial horizon) for each required pilot and one additional attitude indicator;

(vii) A heading indicator (directional gyroscope);

(viii) A means of indicating whether the supply of power to the gyroscopic instruments is adequate;

(ix) A means of indicating on the flight deck the outside air temperature;

(x) A rate-of-climb and descent indicator;

(xi) A stabilisation system, unless it has been demonstrated to the satisfaction of the Authority that the helicopter possesses, by nature of its design, adequate stability without such a system;

(2) [AOC] An emergency power supply for electrically operated attitude indicating instruments:

(i) Independent of the main electrical generating system for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the PIC; and

(ii) Automatically operative after the total failure of the main electrical generating system and clear indication given on the instrument panel that the attitude indicator(s) is being operated by emergency power; and

(3) Such additional instruments or equipment as may be prescribed by the Authority.

Note: A helicopter, when operating in accordance with IFR and having a maximum certificated take-off mass in excess of 3 175 kg or a maximum passenger seating configuration of more than nine, should be equipped with a GPWS that has a forward-looking terrain avoidance function.

7.2.1.5 INSTRUMENTS FOR OPERATION AT NIGHT

(a) [AAC] No person may operate an aeroplane at night unless the aeroplane is equipped with the following:

(1) The instruments specified in 7.2.1.4 of this part appropriate to the aircraft and operation; and

(2) The lights specified in 7.5 of this part.

(b) [AOC] No person may operate an aeroplane at night unless the aeroplane is equipped with the following:

(1) The instruments specified in 7.2.1.4 of this part appropriate to the aircraft and operation; and

(2) The lights specified in 7.5 of this part.

(c) [AAC] No person may operate a helicopter at night unless the helicopter is equipped with the following:

(1) The instruments specified in 7.2.1.4 of this part appropriate to the aircraft and operation;

(2) An attitude indicator (artificial horizon) for each required pilot;

(3) A slip indicator;

(4) A heading indicator (directional gyroscope);

(5) A rate of climb and descent indicator;

(6) The lights specified in 7.5 of this part; and

(7) Such additional instruments or equipment as may be prescribed by the Authority.

7.2.1.6 STANDBY ATTITUDE INDICATOR

(a) [AAC] No person may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg or a performance Class 1 or 2 helicopter unless that aeroplane or helicopter is equipped with a single standby attitude indicator (artificial horizon) that:

(1) Operates independently of any other attitude indicating system;

(2) Is powered continuously during normal operation; and

(3) After a total failure of the normal electrical generating system is automatically powered for a minimum of 30 minutes from a source independent of the normal electrical generating system.

(b) [AAC] When the standby attitude indicator is being operated by emergency power, it shall be clearly operating and illuminated to the flight crew.

(c) [AAC] Where the standby attitude indicator has its own dedicated power supply there shall be an associated indication, either on the instrument or on the instrument panel, when this supply is in use.

(d) [AAC] If the standby attitude instrument system is installed and usable through flight attitudes of 360 degrees of pitch and roll, the turn and slip indicators may be replaced by slip indicators.

7.2.1.7 INSTRUMENTS AND EQUIPMENT FOR CATEGORY II OPERATIONS

(a) The instruments and equipment listed in this subsection shall be installed, approved, and maintained in accordance with IS 7.2.1.7 for each aircraft operated in a CAT II operation:

Note: This subsection does not require duplication of instruments and equipment required by 7.2.1.2 or any other requirements of this part.

(1) Group I is comprised of the following equipment, which shall be inspected within 3 calendar months of the previous inspection and shall also have a bench inspection within 12 months of the previous bench inspection using procedures contained in the approved maintenance programme:

(i) Two localiser and glide slope receiving systems;

Note: Each system shall provide a basic ILS display and each side of the instrument panel shall have a basic ILS display. However, a single localiser antenna and a single glide slope antenna may be used.

(ii) A communications system that does not affect the operation of at least one of the ILS systems;

(iii) A marker beacon receiver that provides distinctive aural and visual indications of the outer and the middle markers;

(iv) Two gyroscopic pitch and bank indicating systems;

(v) Two gyroscopic direction indicating systems;

(vi) Two airspeed indicators;

(vii) Two sensitive altimeters adjustable for barometric pressure, having markings at 20-foot intervals and each having a placarded correction for altimeter scale error and for the wheel height of the aircraft;

(viii) One self-monitoring radio altimeter with dual display;

(ix) Two vertical speed indicators;

(x) A flight control guidance system that consists of either an automatic approach coupler or a flight director system; and

Note: A flight director system shall display computed information as steering command in relation to an ILS localiser and, on the same instrument, either computed information as pitch command in relation to an ILS glide slope or basic ILS glide slope information. An automatic approach coupler shall provide at least automatic steering in relation to an ILS localiser. The flight control guidance system may be operated from one of the receiving systems required by paragraph 7.2.1.7(a)(1)(i) of this subsection.

(xi) For CAT II operations with DHs below 150 feet, a radio altimeter is required.

(2) Group II is comprised of the following equipment, which shall be inspected within 12 months of the previous inspection using procedures contained in the approved maintenance programme and which, with the exception of the static system, does not require special maintenance procedures other than those necessary to retain the original approval condition:

(i) Warning systems for immediate detection by the pilot of system faults in the items listed in paragraphs 7.2.1.7(a)(1)(i), (iv), (v), and (x) of this subsection;

(ii) Dual controls;

(iii) An externally vented static pressure system with an alternate static pressure source;

(iv) A windshield wiper or equivalent means of providing adequate flight deck visibility for a safe visual transition by either pilot to touchdown and rollout; and

(v) A heat source for each airspeed system pitot tube installed or an equivalent means of preventing malfunctioning due to icing of the pitot system.

Note: See also ICAO Doc 9365, Manual of All-Weather Operations*, and the current edition of FAA AC 120-29,* Criteria for Approval of Category I and Category II Weather Minima for Approach.

7.2.1.8 INSTRUMENTS AND EQUIPMENT FOR CATEGORY III OPERATIONS

(a) The following instruments and equipment shall be installed, approved, and maintained in each aircraft operated in a CAT III operation, in accordance with acceptable international criteria and the AFM:

Note 1: This subsection does not require duplication of instruments and equipment required by 7.2.1.2, 7.2.1.7, or any other requirements of this part.

Note 2: Acceptable international criteria may include: ICAO Doc 9365, Manual of All-Weather Operations; the current edition of FAA AC 120-28; or JAR AWO.

(1) AIRBORNE SYSTEMS FOR CAT IIIA MINIMA NOT LESS THAN RVR 200 M (600 FT). The following equipment, in addition to the instruments and navigation equipment required by this part for IFR flight and CAT II operations, is the minimum aircraft equipment required for CAT IIIA operations:

(i) A redundant flight control or guidance system demonstrated in accordance with acceptable international criteria. Acceptable flight guidance or control systems include the following:

(A) A Fail Operational or Fail Passive automatic landing system at least to touchdown;

(B) A Fail Operational or Fail Passive manual flight guidance system providing suitable head-up or head-down command guidance, and suitable monitoring capability at least to touchdown;

(C) A hybrid system, using automatic landing capability as the primary means of landing at least to touchdown; or

(D) Another system that can provide an equivalent level of performance and safety.

(ii) An automatic throttle or automatic thrust control system that meets approved criteria as specified in the AFM. However, for operations with a 15 m (50 ft) DH, or for other operations that have been specifically evaluated, such as for engine inoperative landing capability, automatic throttles may not be required if it has been demonstrated that operations can be safely conducted, with an acceptable workload, without their use.

(iii) At least two independent navigation receivers/sensors providing lateral and vertical position or displacement information, typically with the first pilot's station receiving the information from one and the second pilot's station receiving the information from the other. The navigation receivers/sensors shall meet the criteria specified for CAT IIIA operations.

(iv) At least two approved radio altimeter systems that meet the performance criteria as specified in the AFM, typically with the first pilot's station receiving information from one and the second pilot's station receiving information from the other.

(v) Failure detection, annunciation, and warning capability, as determined acceptable by criteria in the AFM.

(vi) Missed approach guidance provided by one or more of the following means:

(A) Attitude displays that include calibrated pitch attitude markings, or a pre-established computed pitch command display;

(B) An approved flight path angle display; or

(C) An automatic or flight guidance go-around capability.

(vii) Suitable forward and side flight deck visibility for each pilot, as specified in the AFM.

(viii) Suitable windshield rain removal, ice protection, or defog capability, as specified in the AFM.

(2) AIRBORNE SYSTEMS FOR CAT IIIB MINIMA LESS THAN RVR 200 M (600 FT) BUT NOT LESS THAN RVR 125 M (400 FT). The following equipment, in addition to the instruments and navigation equipment required by this part for IFR flight and CAT II and

CAT IIIA operations, is the minimum aircraft equipment required for CAT IIIB operations:

(i) A redundant flight control or guidance system demonstrated in accordance with acceptable international criteria. Acceptable flight guidance or control systems include the following:

(A) A Fail Operational landing system with a Fail Operational or Fail Passive automatic rollout system;

(B) A Fail Passive landing system, limited to touchdown zone RVR not less than RVR 200 m (600 ft), with Fail Passive rollout provided automatically or by a flight guidance system providing suitable head-up or head-down guidance, and suitable monitoring capability;

(C) A Fail Operational hybrid automatic landing and rollout system with compatible manual flight guidance system, using automatic landing capability as the primary means of landing; or

(D) Another system that can provide an equivalent level of performance and safety.

(ii) An automatic throttle or automatic thrust control system that meets the appropriate criteria, as specified in the AFM. However, for operations with a 15 m (50 ft) DH, automatic throttles may not be required if it has been demonstrated that operations can safely be conducted, with an acceptable workload, without their use.

(iii) At least two independent navigation receivers/sensors providing lateral and vertical position or displacement information, typically with the first pilot's station receiving information from one and the second pilot's station receiving information from the other. The navigation receivers/sensors shall meet the criteria specified in the AFM.

(iv) At least two approved radio altimeter systems that meet the performance criteria outlined in the AFM, typically with the first pilot's station receiving information from one and the second pilot's station receiving information from the other.

(v) Failure detection, annunciation, and warning capability, as determined acceptable by the criteria in the AFM.

(vi) Missed approach guidance provided by one or more of the following means:

(A) Attitude displays that include calibrated pitch attitude markings, or a pre-established computed pitch command display;

(B) An approved flight path angle display; or

(C) An automatic or flight guidance go-around capability.

(vii) Suitable forward and side flight deck visibility for each pilot, as specified in the AFM.

(viii) Suitable windshield rain removal, ice protection, or defog capability, as specified in the AFM.

(3) AIRBORNE SYSTEMS FOR CAT IIIC MINIMA LESS THAN RVR 75 M (300 FT). The following equipment, in addition to the instruments and navigation equipment required by this part for IFR flight and CAT II, CAT IIIA, and CAT IIIB operations, is the minimum aircraft equipment required for CAT IIIC operations:

(i) A Fail Operational automatic flight control system, or a manual flight guidance system designed to meet Fail Operational system criteria, or a hybrid system in which both the Fail Passive automatic system and the monitored manual flight

guidance components provide approach and flare guidance to touchdown, and in combination provide full Fail Operational capability; and

(ii) A Fail Operational automatic, manual, or hybrid rollout control system.

Note: See also ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS)*, Volume II; ICAO Doc 9365,* Manual of All-Weather Operations; *and JAR AWO.*

7.2.1.9 AEROPLANES AND HELICOPTERS EQUIPPED WITH AUTOMATIC LANDING SYSTEMS, HEAD-UP DISPLAYS OR EQUIVALENT DISPLAYS, ENHANCED VISION SYSTEMS, SYNTHETIC VISION SYSTEMS, AND/OR COMBINED VISION SYSTEMS

(a) No person shall operate an aircraft equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS, CVS, or any combination of those systems into a hybrid system, unless the aircraft is approved by the Authority and is in accordance with the criteria for the safe operation of an aircraft established by the State of the Operator, which will ensure that:

(1) The equipment meets the appropriate airworthiness certification requirements;

(2) The operator/owner has carried out a safety risk assessment of the operations supported by the automatic landing systems, a HUD or equivalent displays, EVS, SVS, or CVS; and

(3) The operator/owner has established and documented the procedures for the use of, and the training requirements for, a HUD or equivalent displays, EVS, SVS, or CVS.

Note: Information regarding automatic landing systems and a HUD or equivalent displays, EVS, SVS, or CVS, is contained in ICAO Doc 9365, Manual of All-Weather Operations.

7.2.1.10 ELECTRONIC FLIGHT BAGS

(a) No person shall operate an EFB on board an aircraft unless the EFB is issued a specific approval by the State of the Operator in accordance with the appropriate airworthiness requirements and the criteria for the safe operation of an aircraft, which:

(1) Assess the EFB equipment and its associated installation hardware, including interaction with aircraft systems if applicable, to meet the appropriate airworthiness certification requirements;

(2) Assess the risks associated with the operations supported by the EFB function(s);

(3) Establish requirements for redundancy of the information (if appropriate) contained in and displayed by the EFB function(s);

(4) Establish and document procedures for the management of the EFB function(s), including any databases it may use; and

(5) Establish and document the procedures for the use of, and the training requirements for, the EFB function(s).

(b) No person shall operate an EFB on board an aircraft unless the PIC and/or operator/owner has ensured that the EFB does not affect the performance of the aircraft systems or equipment or the ability to operate the aircraft and has:

(1) Assessed the safety risk(s) associated with each EFB function;

(2) Established and documented the procedures for the use of, and the training requirements for, the device and each EFB function; and

(3) Ensured that, in the event of an EFB failure, sufficient information is readily available to the flight crew for the flight to be conducted safely.

Note 1: Guidance on EFB equipment, functions, and specific approval is contained in ICAO Doc 10020, Manual on Electronic Flight Bags (EFBs).

Note 2: Guidance on safety risk assessments is contained in ICAO Doc 9859, Safety Management Manual (SMM).

7.3 COMMUNICATION EQUIPMENT

7.3.1.1 RADIO EQUIPMENT

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with radio communication equipment required for the type of operation being conducted.

(b) [AAC] All aircraft operated in VFR as a controlled flight; in IFR; at night; as an extended flight over water; or over land designated by the Authority as especially difficult for search and rescue shall be equipped with radio communication equipment:

(1) Capable of conducting two-way communication at any time with ATS or aeronautical stations;

(2) Capable of conducting communications on those frequencies prescribed by the Authority;

(3) Capable of receiving meteorological information at any time during the flight;

(4) Capable of conducting communications on the aeronautical emergency frequency 121.5 MHz;

(5) Approved and installed in accordance with applicable requirements, including the minimum performance requirements;

(6) Installed such that the failure of any single unit required for communication will not result in the failure of another unit required for communication purposes; and

(7) Meeting any other requirements as prescribed by the Authority.

Note: The requirements in paragraphs 7.3.1.1(b)(1) through (3) of this subsection are considered fulfilled if the ability to conduct the communications specified therein is established during radio propagation conditions that are normal for the route.

(c) [AAC] For operations where communication equipment is required to meet an RCP specification for PBC, an aeroplane shall, in addition to the requirements in paragraphs 7.3.1.1(a) and (b) of this subsection:

(1) Be provided with communication equipment that will enable it to operate in accordance with the prescribed RCP specification;

(2) Have information relevant to the aircraft RCP specification capabilities listed in the AFM or other aircraft documentation approved by the Authority; and

(3) Have information relevant to the aircraft RCP specification capabilities included in the MEL.

Note: Information on the PBCS concept and guidance material on its implementation are contained in ICAO Doc 9869, Performance-based Communication and Surveillance (PBCS) Manual.

(d) [AAC] No person shall operate an aircraft without meeting the established criteria where an RCP specification for PBC has been prescribed by the Authority.

(e) [AAC] For operations where an RCP specification for PBC has been prescribed, the operator shall establish and document:

(1) Normal and abnormal procedures, including contingency procedures;

(2) Flight crew qualification and proficiency requirements, in accordance with appropriate RCP specifications;

(3) A training programme for relevant personnel consistent with the intended operations; and

(4) Appropriate maintenance procedures to ensure continuing airworthiness, in accordance with appropriate RCP specifications.

(f) [AAC] The operator shall ensure to provide the Authority in respect of those aircraft mentioned in paragraph 7.3.1.1(c) of this subsection, the following:

(1) Reports of observed communication performance issued by monitoring programmes established in accordance with ICAO Annex 11: 3.3.5.2; and

(2) Corrective action for individual aircraft, aircraft types, or operators identified in such reports as not complying with the RCP specification.

(g) [AOC] No person may operate an aircraft in commercial air transport operations, or as otherwise specified by the Authority, unless the aircraft is equipped with two independent radio communication systems, appropriate to the route and airspace used.

(h) [AAC] When more than one communication equipment unit is required, each unit shall be independent of the other unit(s) to the extent that a failure in any one unit will not result in the failure of any other.

7.3.1.2 FLIGHT CREW AND CREW MEMBER INTERPHONE SYSTEM FOR AEROPLANES

(a) [AOC] No person may operate an aeroplane in commercial air transport operations on which a flight crew of more than one is required unless the aeroplane is equipped with a flight crew interphone system, including headsets and microphones, not of a handheld type, for use by all members of the flight crew.

(b) [AOC] No person may operate an aeroplane in commercial air transport operations with a maximum certificated take-off mass of over 15 000 kg, or having an approved passenger seating capacity of 19 or more, or having a flight crew compartment door, unless the aeroplane is equipped with a crew member interphone system that:

(1) Operates independently of the public address system except for handsets, headsets, microphones, selector switches, and signalling devices;

(2) Provides a means of two-way communication between the flight crew compartment and each:

(i) Passenger compartment;

(ii) Galley located on other than a main passenger deck level; and

(iii) Remote crew compartment that is not on the passenger deck and is not easily accessible from a passenger compartment;

(3) Is readily accessible for use:

(i) From each of the required flight crew stations in the flight crew compartment; and

(ii) At required cabin crew member stations close to each separate or pair of floor-level emergency exits;

(4) Has an alerting system incorporating aural or visual signals for use by flight crew members to alert the cabin crew, and for use by cabin crew members to alert the flight crew in the event of suspicious activity or security breaches in the cabin;

(5) Has a means for the recipient of a call to determine whether it is a normal call or an emergency call; and

(6) When the aeroplane is on the ground, provides a means of two-way communication between ground personnel and at least two flight crew members.

7.3.1.3 PUBLIC ADDRESS SYSTEM

(a) [AOC] No AOC holder may operate a passenger-carrying aeroplane with a maximum approved passenger seating configuration of more than 19 unless a public address system is installed that:

(1) Operates independently of the interphone systems except for handsets, headsets, microphones, selector switches, and signalling devices;

(2) Is readily accessible for immediate use from each required flight crew member station;

(3) For each required floor-level passenger emergency exit that has an adjacent cabin crew seat, has a microphone that is readily accessible to the seated cabin crew member, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated cabin crew members;

(4) Is capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which its use is accessible; and

(5) Is audible and intelligible at all passenger seats, lavatories, and cabin crew seats and workstations.

(b) [AOC] No AOC holder may operate a passenger-carrying helicopter with a maximum approved passenger seating configuration of more than 19 unless a public address system is installed that:

(1) Operates independently of the interphone systems except for handsets, headsets, microphones, selector switches, and signalling devices;

(2) Is readily accessible for immediate use from each required flight crew member station;

(3) For each required floor-level passenger emergency exit that has an adjacent cabin crew seat, has a microphone that is readily accessible to the seated cabin crew member, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated cabin crew members;

(4) Is capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which its use is accessible;

(5) Is audible and intelligible at all passenger seats, lavatories, and cabin crew seats and workstations; and

(6) Following a total failure of the normal electrical generating system, provides reliable operation for a minimum of 10 minutes.

(c) [AOC] No AOC holder may operate a passenger-carrying helicopter with a maximum approved passenger seating configuration of more than 9 but less than 19 without a public address system installed unless:

(1) The helicopter is designed without a bulkhead between pilot and passengers; and

(2) The operator is able to demonstrate in a manner acceptable to the Authority that, when the helicopter is in flight, the pilot's voice is audible and intelligible at all passenger seats.

7.3.1.4 MICROPHONES

(a) EQUIPAGE. No person may operate the following aircraft or in the following conditions unless the aircraft is equipped with a boom or throat microphone available at each required flight crew member flight duty station:

(1) [AAC-Aeroplane] Any aeroplane in IFR conditions;

(2) [AOC-Aeroplane] Any aeroplane in commercial air transport operations; or

(3) [AAC-Helicopter] Any helicopter.

(b) USAGE. All flight crew members required to be on flight deck duty shall communicate through boom or throat microphones under the following operations or conditions:

(1) [AAC-Aeroplane] During IFR operations;

(2) [AOC-Aeroplane] Below the transition level/altitude; or

(3) [AAC-Helicopter] At all times.

7.4 NAVIGATION EQUIPMENT

7.4.1.1 GENERAL

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with navigation equipment that will enable it to proceed in accordance with:

(1) Its operational flight plan; and

(2) The requirements of ATS.

(b) No person may operate an aircraft in defined portions of airspace, including MNPS, RVSM, or any other routes where a navigation specification for PBN has been prescribed, unless:

(1) Information relevant to the aircraft navigation specification capabilities is listed in the AFM or other aircraft documentation approved by the State of Design;

(2) The aircraft is equipped with the navigation equipment to enable it to operate in accordance with the prescribed navigation specification(s);

(3) The aircraft is equipped with navigation equipment that continuously provides information to the flight crew of adherence to or departure from track with respect to the required degree of accuracy at any point along that track; and

(4) Where the aircraft is operated in accordance with a MEL, information relevant to the aircraft navigation specification capabilities is included in the MEL.

Note 1: Guidance on aircraft documentation is contained in ICAO Doc 9613, Performance-based Navigation (PBN) Manual*.*

Note 2: See ICAO Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive*, for guidance relating to the specific approval for operations in RVSM airspace.*

(c) No person shall operate an aircraft unless the aircraft has sufficient navigation equipment that will enable the aircraft to navigate in accordance with paragraphs 7.4.1.1(a) and (b) of this subsection, such that:

(1) In the event of the failure of any piece of navigation equipment at any stage of flight, the remaining equipment will enable the aircraft to continue to navigate; and

(2) The failure of any single unit required for communication, navigation, or surveillance purposes, or any combination thereof, will not result in the failure of another unit required for communication, navigation, or surveillance purposes.

(d) No person shall operate an aircraft in PBN operations unless such operations have been approved by the Authority.

(e) When and where a navigation specification for PBN has been prescribed by the Authority, the operator shall establish and document the following before using the PBN procedure:

(1) Normal and abnormal procedures, including contingency procedures;

(2) Flight crew qualification and proficiency requirements, in accordance with the appropriate navigation specifications;

(3) A training programme for relevant personnel, consistent with the intended operations; and

(4) Appropriate maintenance procedures to ensure continuing airworthiness, in accordance with the appropriate navigation specifications.

Note 1: Guidance on safety risks and mitigations for PBN operations, in accordance with ICAO Annex 19, is contained in ICAO Doc 9997, Performance-based Navigation (PBN) Operational Approval Manual.

Note 2: Electronic navigation data management is an integral part of normal and abnormal procedures.

Note: Guidance on specific approvals for PBN authorisation required navigation specifications is contained in ICAO Doc 9997, Performance-based Navigation (PBN) Operational Approval Manual.

(f) The equipment requirements in paragraph 7.4.1.1(a) of this subsection do not apply in instances where the Authority has authorised VFR by visual reference to landmarks.

Note: See ICAO Doc 9613, Performance-based Navigation (PBN) Manual*, for information on the implementation and approval process for PBN and for a list of references to other documents produced by States and international bodies concerning navigation systems.*

(g) [AAC] No person may operate an aeroplane under IFR, or under VFR over routes that cannot be navigated by reference to visual landmarks, unless the aeroplane is equipped with navigation equipment in accordance with the requirements of ATS in the area(s) of operation.

(h) [AAC] All aircraft intended to land in IMC or at night shall be provided with radio navigation equipment capable of receiving signals providing guidance to:

(1) A point from which a visual landing may be effected;

(2) Each aerodrome at which it is intended to land in IMC; and

(3) Any designated alternate aerodromes.

7.4.1.2 SURVEILLANCE EQUIPMENT

(a) No person may operate an aircraft unless it is provided with surveillance equipment that will enable it to operate in accordance with the requirements of ATS.

(b) For operations where surveillance equipment is required to meet an RSP specification for PBS, an aircraft shall, in addition to the requirements specified in paragraph 7.4.1.2(a) of this subsection:

(1) Be provided with surveillance equipment that will enable it to operate in accordance with the prescribed RSP specification(s);

(2) Have information relevant to the aircraft RSP specification capabilities listed in the AFM or other aircraft documentation approved by the Authority; and

(3) Have information relevant to the aircraft RSP specification capabilities included in the MEL.

Note 1: Information on surveillance equipment is contained in ICAO Doc 9924, Aeronautical Surveillance Manual*.*

Note 2: Information on RSP specifications for PBS is contained in ICAO Doc 9869, Performance-based Communication and Surveillance (PBCS) Manual*.*

(c) When and where an RSP specification for PBS has been prescribed by the Authority, the operator shall establish and document the following before using the PBS procedure:

(1) Normal and abnormal procedures, including contingency procedures;

(2) Flight crew qualification and proficiency requirements, in accordance with appropriate RSP specifications;

(3) A training programme for relevant personnel, consistent with the intended operations; and

(4) Appropriate maintenance procedures to ensure continuing airworthiness, in accordance with appropriate RSP specifications.

(d) The operator shall:

(1) Provide to the Authority the reports of observed surveillance performance issued by established monitoring programmes (ATS); and

(2) Take immediate corrective action for individual aircraft or aircraft types identified in such reports as not complying with the RSP specification(s).

7.4.1.3 MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS

(a) [AAC] No person may operate an aeroplane in MNPS airspace unless the aeroplane is equipped with navigation equipment that:

(1) Continuously provides indications to the flight crew of adherence to or departure from track to the required degree of accuracy at any point along that track; and

(2) Has been authorised by the Authority for the MNPS operations concerned through either operations specifications, for non-AOC holders, or a letter of authorisation, for general aviation.

Note: Equipment shall comply with MNPS prescribed in ICAO Doc 7030, Procedures for Air Navigation Services — Regional Supplementary Procedures*, in the form of Regional Supplementary Procedures.*

(b) [AAC] The navigation equipment required for operations in MNPS airspace shall be visible and usable by either pilot seated at either duty station.

(c) [AAC] For unrestricted operation in MNPS airspace, an aeroplane shall be equipped with two independent LRNS.

(d) [AAC] For operation in MNPS airspace along notified special routes, an aeroplane shall be equipped with one LRNS, unless otherwise specified.

7.4.1.4 REDUCED VERTICAL SEPARATION MINIMUM

(a) [AAC] For flights in defined portions of airspace where, based on a Regional Air Navigation Agreement, an RVSM of 300 m (1 000 ft) is applied between FL 290 and FL 410 inclusive, an aeroplane:

(1) Shall have equipment that is capable of:

(i) Indicating to the flight crew the flight level being flown;

(ii) Automatically maintaining a selected flight level;

(iii) Providing an alert to the flight crew when a deviation occurs from the selected flight level; the threshold for the alert shall not exceed ± 90 m (300 ft); and

(iv) Automatically reporting pressure altitude.

(2) Shall be authorised for operation in the airspace concerned by:

(i) The State of the Operator through operations specifications, for AOC holders; or

(ii) The State of Registry through a specific approval for operations for non-AOC holders.

(b) Prior to granting the RVSM specific approval required by paragraph 7.4.1.4(a)(2) of this subsection, the Authority shall be satisfied that:

(1) The vertical navigation performance capability of the aeroplane satisfies the requirements specified in IS 7.4.1.4;

(2) The operator has instituted appropriate procedures with respect to continuing airworthiness (maintenance and repair) practices and programmes; and

(3) The operator has instituted appropriate flight crew procedures for operations in RVSM airspace.

Note: An RVSM specific approval is valid globally on the understanding that any operating procedures specific to a given region will be stated in the OM or appropriate crew guidance.

(c) RVSM. Curaçao, in consultation with the State of Registry, if appropriate, shall ensure that, with respect to those aeroplanes mentioned in paragraph 7.4.1.4(a)(2) of this subsection, adequate provisions exist for:

(1) Receiving the reports of height-keeping performance issued by the monitoring agencies established in accordance with ICAO Annex 11: 3.3.5.1; and

(2) Taking immediate corrective action for individual aircraft, or aircraft type groups, identified in such reports as not complying with the height-keeping requirements for operations in airspace where RVSM is applied.

(d) An operator with RVSM specific approval shall ensure that a minimum of two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored at least once every 2 years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specified period.

(e) An operator shall ensure that each aeroplane shall be sufficiently provided with navigation equipment to ensure that, in the event of the failure of one item of equipment at any stage of the flight, the remaining equipment will enable the aeroplane to navigate in accordance with paragraphs 7.4.1.1(a) and (b) and 7.4.1.3 and 7.4.1.4 of this subsection.

(f) The Authority will take appropriate action with respect to aircraft and operators found to be operating in RVSM airspace in Curaçao without a valid RVSM specific approval.

Note 1: These provisions and procedures shall address both the situation where the aircraft in question is operating without specific approval in the airspace of the State, and the situation where an operator for which the State has regulatory oversight responsibility is found to be operating without the required approval in the airspace of another State.

Note 2: See ICAO Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive*, for guidance relating to the specific approval for operations in RVSM airspace.*

7.4.1.5 ELECTRONIC NAVIGATION DATA MANAGEMENT

(a) [AAC] No person shall employ electronic navigation data products that have been processed for application in the air and on the ground unless the Authority has approved:

(1) The operator's procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them;

(2) The operator's programme for continual monitoring of both the process and products; and

(3) The operator's procedures to ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

Note: Guidance relating to the processes that data suppliers may follow is contained in RTCA DO-200A/EUROCAE ED-76 *and* RTCA DO-201A/EUROCAE ED-77*.*

7.4.1.6 PRESSURE-ALTITUDE REPORTING TRANSPONDER

(a) [AAC] No person may operate an aeroplane or helicopter unless the aeroplane or helicopter is equipped with an operative pressure-altitude reporting transponder that operates in accordance

with the requirements of Curaçao ATS and the relevant provisions of ICAO Annex 10, Volume IV.

(b) [AAC] No person may operate an aircraft in airspace that requires a pressure-altitude reporting transponder unless that equipment is operative.

(c) [AOC] No person may operate an aeroplane unless the aeroplane is equipped with a data source that provides pressure altitude information with a resolution of 7.62 m (25 ft) or better.

(d) [AOC] No person may operate an aeroplane that is equipped with an automatic means of detecting airborne or on-the-ground status unless the aeroplane is equipped with a Mode S transponder.

Note 1: These requirements will improve the effectiveness of ACASs as well as ATS that employ Mode S radar. In particular, tracking processes are significantly enhanced with a resolution of 7.62 m (25 ft) or better.

Note 2: Mode C replies of transponders always report pressure altitude in 30.50 m (100 ft) increments irrespective of the resolution of the data source

7.5 AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION

7.5.1.1 ENGINE INSTRUMENTS

(a) [AAC] Unless the Authority allows or requires different instrumentation for turbine-engine-powered aeroplanes to provide equivalent safety, no person may operate any powered aircraft without the following engine instruments:

(1) A means for indicating fuel quantity in each fuel tank to be used;

(2) An oil pressure indicator for each engine;

(3) An oil temperature indicator for each engine;

(4) A manifold pressure indicator for each engine; and

(5) A tachometer for each engine.

(b) [AOC] Unless the Authority allows or requires different instrumentation for turbine-engine-powered aeroplanes to provide equivalent safety, in addition to the listed equipment requirements in paragraph 7.5.1.1(a) of this subsection, no person may operate any powered aircraft without the following engine instruments:

(1) A carburettor air temperature indicator for each reciprocating engine;

(2) A cylinder head temperature indicator for each air-cooled reciprocating engine;

(3) A fuel pressure indicator for each engine;

(4) A fuel flowmeter or fuel mixture indicator for each engine not equipped with an automatic altitude mixture control;

(5) An oil quantity indicator for each oil tank when a transfer or separate oil reserve supply is used;

(6) An independent fuel pressure warning device for each engine or a master warning device for all engines with a means for isolating the individual warning circuits from the master warning device; and

(7) A device for each reversible propeller, to indicate to the pilot when the propeller is in reverse pitch, that complies with the following:

(i) The device may be actuated at any point in the reversing cycle between the normal low pitch stop position and full reverse pitch, but it may not give an indication at or above the normal low pitch stop position; and

(ii) The source of indication shall be actuated by the propeller blade angle or shall be directly responsive to it.

7.5.1.2 REQUIRED AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION

(a) [AAC] All aircraft operated at night shall be equipped with:

(1) A landing light;

(2) Navigation/position lights;

(3) Illumination for all flight instruments and equipment that are essential for the safe operation of the aircraft;

(4) Lights in all passenger compartments; and

(5) An independent portable light for each crew member station (approval not required).

(b) All aircraft type certificated with an aviation red or an aviation white anti-collision system shall have the anti-collision system operative in both day and night. In the event of the failure of any light of the anti-collision light system, operation of the aircraft may continue to a location where repairs or replacement can be made.

7.5.1.3 REQUIRED AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(a) [AOC] No person may operate an aircraft in commercial air transport operations unless the aircraft is equipped with:

(1) Two landing lights or a single light having two separately energised filaments;

(2) An anti-collision light system;

(3) Illumination for all flight instruments and equipment that are essential for the safe operation of the aircraft;

(4) Lights in all passenger compartments;

(5) An independent portable light for each crew member station;

(6) Navigation/position lights;

(7) Lights to conform to the International regulations for preventing collisions at sea, if the aircraft is a seaplane or an amphibian aircraft; and

(8) For helicopters – a landing light that is trainable, at least in the vertical plane.

7.6 RESERVED

7.7 WARNING INSTRUMENTS AND SYSTEMS

7.7.1.1 MACH NUMBER INDICATOR

(a) [AAC] All aeroplanes with speed limitations expressed in terms of Mach number shall be equipped with a Mach number indicator.

7.7.1.2 LOSS OF PRESSURISATION INDICATOR

(a) [AAC] All pressurised aircraft intended to be operated at flight altitudes above 25 000 ft (7 600 m) shall be equipped with a device to provide positive warning to the flight crew of any dangerous loss of pressurisation.

7.7.1.3 LANDING GEAR INDICATOR POSITION AND AURAL WARNING DEVICE

(a) [AAC] Each powered civil aircraft with retractable landing gear shall have a landing gear indicator position.

(b) [AOC] Each aeroplane with retractable landing gear shall have an aural warning device that functions continuously under the following conditions:

(1) For aeroplanes with an established approach wing-flap position, whenever the wing flaps are extended beyond the maximum certificated approach climb configuration position in the AFM and the landing gear is not fully extended and locked; and

(2) For aeroplanes without an established approach climb wing-flap position, whenever the wing flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.

(c) [AOC] The warning system required by paragraph 7.7.1.3(b) of this subsection:

(1) Shall not have a manual shutoff;

(2) Shall be in addition to the throttle-actuated device installed under the type certification airworthiness requirements; and

(3) May utilise any part of the throttle-actuated system, including the aural warning device.

(d) [AOC] The flap position sensing unit required to comply with paragraph 7.7.1.3(b) of this subsection may be installed at any suitable place in the aeroplane.

7.7.1.4 ALTITUDE ALERTING SYSTEM

(a) [AAC] No person may operate a turbine-engined aeroplane with a maximum certificated take-off mass of over 5 700 kg or having a maximum approved passenger seating configuration of more than nine seats, or a turbojet-powered aeroplane, unless the aeroplane is equipped with an altitude alerting system capable of:

(1) Alerting the flight crew upon approaching a preselected altitude in either ascent or descent; and

(2) Alerting the flight crew by at least an aural signal when deviating above or below a preselected altitude.

(b) [AAC] For operations in defined portions of airspace where, based on a Regional Air Navigation Agreement, an RVSM of 300 m (1 000 ft) is applied between FL 290 and FL 410, an aircraft shall be provided with equipment that is capable of providing an alert to the flight crew when a deviation occurs from the selected flight level. The threshold for the alert may not exceed ± 90 m (300 ft).

7.7.1.5 GROUND PROXIMITY WARNING SYSTEM

(a) [AAC] No operator may operate a turbine-engined aeroplane, or a reciprocating-engine aeroplane of a maximum certificated take-off mass of over 5 700 kg or authorised to carry more than nine passengers, unless the aeroplane is equipped with a GPWS that has a forward looking terrain avoidance function.

(b) The operator shall implement database management procedures that ensure the timely distribution and update of current terrain and obstacle data to the GPWS.

(c) [AAC] Each GPWS shall automatically provide, by means of aural signals that may be supplemented by visual signals, timely and distinctive warning to the flight crew of the following circumstances:

(1) Excessive descent rate;

(2) Excessive terrain closure rate;

(3) Excessive altitude loss after take-off or go-around;

(4) Unsafe terrain clearance while not in landing configuration:

(i) Gear not locked down; and

(ii) Flaps not in a landing position; and

(5) Excessive descent below the instrument glide path.

7.7.1.6 WEATHER RADAR

(a) [AOC] No person may operate an aeroplane in commercial air transport operations when carrying passengers in an area where thunderstorms or other potentially hazardous weather conditions may be expected unless the aeroplane is equipped with weather radar.

(b) [AOC] No person may operate a helicopter in commercial air transport operations when carrying passengers in an area where thunderstorms or other potentially hazardous weather conditions may be expected unless the helicopter is equipped with weather radar.

7.7.1.7 AIRBORNE COLLISION AVOIDANCE SYSTEM

(a) [AAC] Any ACAS installed on an aircraft in Curaçao shall be approved by the Authority.

(b) [AAC] Each person operating an aircraft equipped with an ACAS shall have that system on and operating.

(c) [AAC] No person may operate a turbine-engined aeroplane with a maximum certificated take-off mass of over 5 700 kg, or that is authorised to carry more than 19 passengers, unless the aeroplane is equipped with an ACAS II.

(d) [AAC] An ACAS shall operate in accordance with the relevant provisions of ICAO Annex 10, Volume IV.

(e) [AOC] No person may operate a turbine-engined aeroplane with a maximum certificated take-off mass of over 5 700 kg, or that is authorised to carry more than 19 passengers, unless the aeroplane is equipped with an ACAS II.

7.7.1.8 FORWARD LOOKING WIND SHEAR WARNING SYSTEM – TURBOJET AEROPLANES

(a) [AOC] All turbojet aeroplanes with a maximum certificated take-off mass of over 5 700 kg or authorised to carry more than nine passengers shall be equipped with a forward looking wind shear warning system.

(b) [AOC] The forward looking wind shear warning system shall be capable of providing the pilot with a timely aural and visual warning of wind shear ahead of the aircraft and the information required to permit the pilot to safely commence and continue a missed approach or go-around or to execute an escape manoeuvre if necessary.

(c) [AOC] The forward looking wind shear warning system shall also provide an indication to the pilot when the limits specified for the certification of automatic landing equipment are being approached, when such equipment is in use.

7.7.1.9 LOCATION OF AN AEROPLANE IN DISTRESS

(a) Until 31 December 2024, all aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 01 January 2023, shall autonomously transmit information from which a position can be determined by the operator at least once every minute, when in distress.

(b) As of 01 January 2025, all aeroplanes of a maximum certificated take-off mass of over 27 000 kg for which the individual certificate of airworthiness is first issued on or after 01 January 2024, shall autonomously transmit information from which a position can be determined by the operator at least once every minute, when in distress.

(c) No person may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg, for which the certificate of airworthiness is first issued on or after 01 January 2023, unless the aeroplane is equipped to autonomously transmit information from which a position can be determined by the operator at least once every minute, when in distress.

(d) ACTIVATION/DEACTIVATION. The equipment shall:

(1) Automatically activate immediately or within 5 seconds after detection of an activation event;

(2) Be capable of manual activation; and

(3) Be capable of deactivation using the same mechanism that activated it.

(e) TRANSMISSION. The equipment shall meet the following criteria:

(1) Location within a 6 NM radius, including after any accident;

(2) Timestamp of the position information; and

(3) The accuracy of position information shall, as a minimum, meet the position accuracy requirements established for ELTs.

(f) The operator shall make position information of a flight in distress available to the appropriate organisations, as established by the Authority.

Note 1: Aircraft behaviour events may include, but are not limited to, unusual attitudes, unusual speed conditions, collision with terrain, total loss of thrust/propulsion on all engines, and ground proximity warnings.

Note 2: A distress alert may be triggered using criteria that may vary as a result of aircraft position and phase of flight. Further guidance regarding in-flight event detection and triggering criteria may be found in the EUROCAE ED-237, Minimum Aviation System Performance Specification (MASPS) for Criteria to Detect In-Flight Aircraft Distress Events to Trigger Transmission of Flight Information.

Note 3: A State's procedures to address aircraft in distress are typically found in government agreements implementing ICAO Annexes 12 and 13. These procedures will contain coordination information with the appropriate organisations.

7.8 FLIGHT RECORDERS

7.8.1.1 FLIGHT RECORDER SYSTEMS

(a) Crash-protected flight recorders, for both aeroplanes and helicopters, shall comprise one or more of the following:

(1) An FDR;

(2) A CVR;

(3) An AIR; or

(4) A DLR.

Note: When image or data link information is required to be recorded on a crash-protected flight recorder, it is permissible to record it on either the CVR or the FDR.

(b) Lightweight flight recorders for aeroplanes shall comprise one or more of the following:

(1) An ADRS;

(2) A CARS;

(3) An AIRS; or

(4) A DLRS.

Note: When image or data link information is required to be recorded on a lightweight flight recorder, it is permissible to record it on either the CARS or the ADRS.

(c) Combination recorders (FDR/CVR) may be used to meet the equipage requirements for helicopters.

7.8.1.2 CONSTRUCTION AND INSTALLATION

(a) Flight recorders shall be constructed, located, and installed so as to provide maximum practical protection for the recordings in order that the recorded information may be preserved, recovered, and transcribed. Flight recorders shall meet the prescribed crashworthiness and fire protection specifications.

(b) Non-deployable flight recorder containers shall be painted a distinctive orange colour.

(c) Non-deployable crash-protected flight recorders shall:

(1) Carry reflective material to facilitate their location; and

(2) Have securely attached an automatically activated underwater locating device operating at a frequency of 37.5 kHz. At the earliest practical date, but not later than 01 January 2018, this device shall operate for a minimum of 90 days.

(d) ADFR containers shall:

(1) Be painted a distinctive orange colour; however, the surface visible from outside the aircraft may be of another colour;

(2) Carry reflective material to facilitate their location;

(3) Have an integrated automatically activated ELT; and

(4) Have specific requirements that can be found in IS 7.8.1.2.

(e) Flight recorder systems shall be installed so that:

(1) The probability of damage to the recordings is minimised;

(2) There is an aural or visual means for pre-flight checking that the flight recorder systems are operating properly; and

(3) If the flight recorder systems have an erasure device, the installation shall be designed to prevent operation of the device during flight time or crash impact;

(4) For aircraft for which the individual certificate of airworthiness is first issued on or after 01 January 2023, a flight-crew-operated erase function shall be provided on the flight deck which, when activated, modifies the recording of a CVR and AIR so that it cannot be retrieved using normal replay or copying techniques. The installation shall be designed to prevent activation during flight. In addition, the probability of an inadvertent activation of an erase function during an accident shall also be minimised; and

(5) They meet the prescribed crashworthiness and fire protection specifications.

(f) The crash-protected flight recorders shall be installed so that they receive electrical power from a bus that provides the maximum reliability for operation of the flight recorders without jeopardising service to essential or emergency loads.

(g) The lightweight flight recorders shall be connected to a power source having the characteristics which ensure proper and reliable recording in the operational environment.

(h) The flight recorder systems, when tested by methods approved by the State of Design, shall be demonstrated to be suitable for the environmental extremes over which they are designed to operate.

(i) Means shall be provided for an accurate time correlation between the flight recorder systems' recordings.

(j) The flight recorder system manufacturer shall provide the State of Design with the following information with respect to the flight recorder systems:

(1) Manufacturer's operating instructions, equipment limitations, and installation procedures;

(2) Parameter origin or source and equations that relate counts to units of measurement;

(3) Manufacturer's test reports; and

(4) Detailed information to ensure the continued serviceability of the flight recorder system.

(k) The holder of the airworthiness approval for the installation design of the flight recorder system shall make available the relevant continuing airworthiness information to the operator of the aeroplane to be incorporated in the continuing airworthiness maintenance programme. This continuing airworthiness information shall cover in detail all the tasks required to ensure the continued serviceability of the flight recorder system.

Note 1: For aircraft for which the application for type certification is submitted to a Contracting State before 01 January 2016, specifications applicable to crash-protected flight recorders may be found in EUROCAE ED-112A Minimum Operational Performance Specifications (MOPS)*, or earlier equivalent documents.*

Note 2: For aircraft for which the application for type certification is submitted to a Contracting State on or after 01 January 2016, specifications applicable to crash-protected flight recorders may be found in EUROCAE ED-112A, Minimum Operational Performance Specification (MOPS)*, or equivalent documents.*

Note 3: Specifications applicable to lightweight flight recorders may be found in EUROCAE ED-155, Minimum Operational Performance Specification (MOPS)*, or equivalent documents*

Note 4: Chapter 1, Section II, contains requirements for States regarding the use of voice, image, and/or data recordings and transcripts.

Note 5: The erase function is intended to prevent access to CVR and AIR recordings by normal replay or copying means, but shall not prevent accident investigation authorities access to such recordings by specialised replay or copying techniques.

Note 6: Lightweight flight recorders comprise one or more of the following: an ADRS; a CARS; an AIRS; or a DLRS. Image and data link information may be recorded on either a CARS or an ADRS.

Note 7: The flight recorder system is composed of the flight recorder as well as any dedicated sensors, hardware, and software that provide information prescribed by IS 7.8.2.1(A) and IS 7.8.2.1(B)

Note 8: Conditions related to the continued serviceability of a flight recorder system are defined in IS 7.8.1.4. ICAO Doc 10104, The Manual on Flight Recorder System Maintenance (FRSM), *provides guidance on maintenance tasks associated with flight recorder systems.*

7.8.1.3 OPERATION

(a) Flight recorder systems shall not be switched off during flight time.

(b) To preserve flight recorder records, flight recorders shall be deactivated upon completion of flight time following an accident or incident. The flight recorders shall not be reactivated before their disposition as determined in accordance with the accident/incident regulations of Curaçao.

Note 1: The need for removal of the flight recorder records from the aircraft will be determined by the investigation authority in the State conducting the investigation, with due regard to the seriousness of an occurrence and the circumstances, including the impact on the operation.

Note 2: The operator's responsibilities regarding the retention of flight recorder records are contained in the accident and incident regulations of Curaçao.

7.8.1.4 CONTINUED SERVICEABILITY AND INSPECTION OF FLIGHT RECORDER SYSTEMS

(a) The operator shall conduct operational checks and evaluations of recordings from the flight recorder systems to ensure the continued serviceability of the recorders.

(b) The procedures for the inspection of the flight recorder systems are prescribed in IS 7.8.1.4.

7.8.1.5 FLIGHT RECORDER ELECTRONIC DOCUMENTATION

(a) Operators shall provide to [ACCIDENT INVESTIGATION AUTHORITIES] the documentation of flight recording systems parameters in electronic format and in accordance with [INDUSTRY SPECIFICATIONS].

Note: Industry specification for documentation concerning flight recorder parameters may be found in the ARINC 647A, Flight Recorder Electronic Documentation*, or equivalent document.*

7.8.1.6 COMBINATION RECORDERS

(a) [AAC] No person may operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg which is required to be equipped with both an FDR and a CVR unless the aeroplane is equipped with:

(1) An FDR and a CVR; or

(2) Two combination recorders (FDR/DVR).

(b) [AOC] No person may operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg which is required to be equipped with both an FDR and a CVR unless:

(1) The aeroplane is equipped with an FDR and a CVR or, alternatively, equipped with two combination recorders (FDR/CVR); or

(2) For aeroplanes type certificated on or after 01 January 2016, the aeroplane is equipped with two combination recorders (FDR/CVR).

Note: The requirement may be satisfied by equipping the aeroplanes with two combination recorders (one forward and one aft) or separate devices.

(c) [AOC] No person may operate an aeroplane of a maximum certificated take-off mass of over 15 000 kg which is required to be equipped with both a CVR and an FDR and was type certificated on or after 01 January 2016 unless:

(1) The aeroplane is equipped with two combination recorders (FDR/CVR); and

(2) One recorder is located as close to the flight deck as practicable and the other recorder located as far aft as practicable.

(d) [AOC] No person may operate a multi-engined turbine-engined aeroplane of a maximum certificated take-off mass of 5 700 kg or less unless the aeroplane is equipped with:

(1) An FDR and/or a CVR; or

(2) One combination recorder (FDR/CVR).

7.8.1.7 FLIGHT RECORDER DATA RECOVERY

(a) All aeroplanes of a maximum certificated take-off mass of over 27 000 kg which are authorised to carry more than 19 passengers, and for which the application for type certification is submitted to a Contracting State on or after 01 January 2021, shall be equipped with a means approved by the Authority to recover flight recorder data and make it available in a timely manner.

(b) In approving the means to make flight recorder data available in a timely manner, the Authority shall take into account the following:

(1) The capabilities of the operator;

(2) Overall capability of the aeroplane and its systems as certified by State of Design;

(3) The reliability of the means to recover the appropriate CVR channels and appropriate FDR data; and

(4) Specific mitigation measures.

Note: Guidance on approving the means to make flight recorder data available in a timely manner is contained in ICAO Doc 10054, Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery.

7.8.2 FLIGHT DATA RECORDERS AND AIRCRAFT DATA RECORDING SYSTEMS

(a) The FDR or ADRS shall start to record prior to the aircraft moving under its own power and shall record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power.

7.8.2.1 TYPES AND PARAMETERS

(a) AEROPLANE. Aeroplane FDR shall record the parameters prescribed in IS 7.8.2.1(A).

(b) HELICOPTER. Helicopter FDR shall record the parameters prescribed in IS 7.8.2.1(B).

7.8.2.2 AIRCRAFT EQUIPAGE FOR OPERATIONS

(a) No person may operate the following aeroplane unless the aeroplane is equipped with an FDR capable of recording the aural environment of the flight deck during flight time.

(b) [AAC] All turbine-engined aeroplanes with a seating configuration of more than 5 passenger seats and a maximum certificated take-off mass of 5 700 kg or less, for which the application for a TC is first made to the appropriate Authority on or after 01 January 2016, shall be equipped with:

(1) An FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters displayed to the pilot(s) as prescribed in IS 7.8.2.2; or

(3) An ADRS that shall record at least the first 7 parameters prescribed in IS 7.8.2.2.

(i) If further ADRS recording capacity is available, the recording of any parameters from 8 onwards defined in IS 7.8.2.2 shall be considered.

Note: TC first issued refers to the date of issuance of the original TC for the aeroplane type, not the date of certification of particular aeroplane variants or derivative models.

(c) [AOC] All turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less, for which the individual certificate of airworthiness is first issued on or after 01 January 2016, shall be equipped with:

(1) An FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters displayed to the pilot(s) as defined in IS 7.8.2.2; or

(3) An ADRS that shall record at least the first 7 parameters listed in IS 7.8.2.2.

(d) [AAC] All aeroplanes of a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 32 parameters prescribed in IS 7.8.21(A).

(e) [AAC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A).

(f) [AOC] All multi-engined turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less, for which the individual certificate of airworthiness is first issued on or after 01 January 1990, shall be equipped with an FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A).

(g) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 5 700 kg, except those in paragraph 7.8.1.2(h) of this part, for which the individual certificate of airworthiness

was first issued before 01 January 1989, shall be equipped with an FDR that shall record at least the first five parameters prescribed in IS 7.8.2.1(A).

(h) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 5 700 kg, except those in 7.8.1.2 of this part, for which the individual certificate of airworthiness was first issued on or after 01 January 1987 but before 01 January 1989, shall be equipped with an FDR that shall record at least the first nine parameters prescribed in IS 7.8.2.1(A).

(i) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness was first issued on or after 01 January 1987, but before 01 January 1989, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with an FDR that shall record at least the first 16 parameters prescribed in IS 7.8.2.1(A).

(j) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness was first issued before 01 January 1987, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with an FDR that shall record, in addition to the first five parameters prescribed in IS 7.8.2.1(A), such additional parameters as are necessary to meet the objectives of determining:

(1) The attitude of the aeroplane in achieving its flight path; and

(2) The basic forces acting upon the aeroplane resulting in the achieved flight path and the origin of such basic forces.

(k) [AAC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued after 01 January 2005, shall be equipped with an FDR that shall record at least the first 78 parameters prescribed in IS 7.8.2.1(A).

(l) All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the application for type certification is submitted on or after 01 January 2023, shall be equipped with an FDR capable of recording at least the 82 parameters prescribed in IS 7.8.2.1(A).

(m) All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2023, shall be equipped with an FDR capable of recording at least the 82 parameters prescribed in IS 7.8.2.1(A).

(n) No person may operate the following helicopter unless the helicopter is equipped with an FDR capable of recording the aural environment of the flight deck during flight time.

(o) [AAC] All helicopters with a maximum certificated take-off mass of over 3 175 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2016, shall be equipped with an FDR that shall record at least the first 48 parameters prescribed in IS 7.8.2.1(B).

(p) [AAC] All helicopters with a maximum certificated take-off mass of over 7 000 kg, or having a passenger seating configuration of more than 19, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 30 parameters prescribed in IS 7.8.2.1(B).

(q) [AAC] All helicopters with a maximum certificated take-off mass of over 3 175 kg, up to and including 7 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1989, shall be equipped with an FDR that shall record at least the first 15 parameters prescribed in IS 7.8.2.1(B).

(r) [AOC] All turbine-engined helicopters of a maximum certificated take-off mass of over 2 250 kg, up to and including 3 175 kg, for which the application for a TC is first made to the appropriate Authority on or after 01 January 2018, shall be equipped with:

(1) An FDR that shall record at least the first 48 parameters prescribed in IS 7.8.2.1(B);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters

displayed to the pilot(s), as defined in IS 7.8.2.2; or

(3) An ADRS that shall record the first 7 parameters prescribed in IS 7.8.2.2.

(s) [AOC] All helicopters of a maximum certificated take-off mass of 3 175 kg or less, for which the individual certificate of airworthiness is first issued on or after 01 January 2018, shall be equipped with:

(1) An FDR that shall record at least the first 48 parameters prescribed in IS 7.8.2.1(B);

(2) A Class C AIR or AIRS that shall record at least the flight path and speed parameters displayed to the pilot(s), as defined in IS 7.8.2.2; or

(3) An ADRS that shall record the first 7 parameters prescribed in IS 7.8.2.2.

(t) All helicopters of a maximum certificated take-off mass of over 3 175 kg, for which the application for type certification is submitted on or after 01 January 2023, shall be equipped with an FDR capable of recording at least the 53 parameters prescribed in IS 7.8.2.1(B).

(u) All helicopters of a maximum certificated take-off mass of over 3 175 kg for which the individual certificate of airworthiness is first issued on or after 01 January 2023 shall be equipped with an FDR capable of recording at least the 53 parameters prescribed in IS 7.8.2.1(B)

7.8.2.3 RECORDING TECHNOLOGY

(a) FDRs, ADRS, AIRs, or AIRS shall not use engraving metal foil, frequency modulation, photographic film, or magnetic tape in aircraft registered in Curaçao or operated in commercial air transport operations in Curaçao.

7.8.2.4 DURATION

(a) FDRs on aeroplanes shall be capable of retaining the information recorded during at least the last 25 hours of operation, with the exception of those installed on aeroplanes referenced in paragraph 7.8.2.2(f) of this part for which the FDR shall retain the information recorded during at least the last 30 minutes of operation, and, in addition, sufficient information from the preceding take-off for calibration purposes.

(b) FDRs on helicopters shall retain the information recorded during at least the last 10 hours of operation.

7.8.3 COCKPIT VOICE RECORDERS AND COCKPIT AUDIO RECORDING SYSTEMS

7.8.3.1 START AND STOP LOGIC – COCKPIT VOICE RECORDERS AND COCKPIT AUDIO RECORDING SYSTEMS

(a) The CVR and CARS shall start to record prior to the aircraft moving under its own power and shall record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power.

(b) In addition, depending on the availability of electrical power, the CVR or CARS shall start to record as early as possible during the flight deck checks prior to engine start at the beginning of the flight until the flight deck checks immediately following engine shutdown at the end of the flight.

(c) The CVR shall record simultaneously on four separate channels, or more, at least the following:

(1) Voice communication transmitted from or received in the aircraft by radio;

(2) Aural environment on the flight deck;

(3) Voice communication of flight crew members on the flight deck using the aircraft's interphone system, if installed; and

(4) Digital communications with ATS, unless recorded by the FDR.

(d) The preferred CVR audio allocation shall be as follows:

(1) PIC audio panel;

(2) Co-pilot audio panel;

(3) Additional flight crew positions and time reference; and

(4) Flight deck area microphone.

(e) The CARS shall record simultaneously on two separate channels, or more, at least the following:

(1) Voice communication transmitted from or received in the aircraft by radio;

(2) Aural environment on the flight deck; and

(3) Voice communication of flight crew members on the flight deck using the aircraft's interphone, if installed.

(f) The preferred CARS audio allocation shall be as follows:

(1) Voice communication; and

(2) Aural environment on the flight deck.

(g) On a tape-based CVR, to ensure accurate time correlation between channels, the recorder shall record in an in-line format. If a bi-directional configuration is used, the in-line format and channel allocation shall be retained in both directions.

7.8.3.2 AIRCRAFT EQUIPAGE FOR OPERATIONS USING COCKPIT VOICE RECORDERS AND COCKPIT AUDIO RECORDING SYSTEMS

(a) No person may operate an aeroplane unless the aeroplane is equipped with a CVR and CARS as listed below:

(1) [AAC] All turbine-engined aeroplanes required to be operated by more than one pilot and for which the application for a TC is first submitted to the appropriate Authority on or after 01 January 2016 shall be equipped with either a CVR or a CARS.

(2) [AAC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1987, shall be equipped with a CVR.

(3) [AOC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2003, shall be equipped with a CVR capable of retaining the information recorded during at least the last 2 hours of its operation.

(4) [AOC] All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 1987, shall be equipped with a CVR.

(5) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness was first issued before 01 January 1987, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with a CVR.

(6) [AOC] All turbine-engined aeroplanes with a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, for which the individual certificate of airworthiness was first issued before 01 January 1987, that are of types of which the prototype was certificated by the appropriate Authority after 30 September 1969, shall be equipped with a CVR.

(b) No person may operate a helicopter unless the helicopter is equipped with a CVR as listed below:

(1) [AAC] All helicopters of a maximum certificated take-off mass of over 7 000 kg shall be equipped with a CVR. For helicopters not equipped with an FDR, at least main rotor speed shall be recorded on the CVR.

(2) [AAC] All helicopters of a maximum certificated take-off mass of over 3 175 kg, for which the individual certificate of worthiness is first issued on or after 01 January 1987, shall be equipped with a CVR. For helicopters not equipped with an FDR, at least main rotor speed shall be recorded on the CVR.

7.8.3.3 DISCONTINUATION

(a) CVRs and CARS shall not use magnetic tape or wire in aircraft registered in Curaçao or operated in commercial air transport operations in Curaçao.

7.8.3.4 DURATION

(a) A CVR shall retain the information recorded during at least the last 2 hours of its operation.

(b) All aeroplanes of a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2022, shall be equipped with a CVR that shall retain the information recorded during at least the last 25 hours of its operation.

(c) All aeroplanes that are required to be equipped with CARS, and for which the individual certificate of airworthiness is first issued on or after 01 January 2025, shall be equipped with a CARS that shall retain the information recorded during at least the last 2 hours of its operation.

7.8.3.5 COCKPIT VOICE RECORDER ALTERNATE POWER SOURCE

(a) [AOC] No person may operate an aeroplane required to be equipped with a CVR unless the aeroplane is equipped with CVR alternate power that:

(1) Automatically engages and provides 10 minutes, plus or minus one minute, of operation whenever aeroplane power to the recorder ceases, either by normal shutdown or by any other loss of power;

(2) Powers the CVR and its associated flight deck area microphone components; and

(3) Is located as close as practicable to the alternate power source.

(b) [AOC] No person may operate an aeroplane of a maximum certificated take-off mass of over 27 000 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2018, unless the aeroplane is equipped with an alternate power source, as described in paragraph 7.8.3.5(a) of this subsection, that powers:

(1) The forward CVR, in the case of combination recorders; or

(2) At least one CVR.

Note 1: "Alternate" means separate from the power source that normally provides power to the CVR. The use of aeroplane batteries or other power sources is acceptable provided that the requirements above are met and electrical power to essential and critical loads is not compromised.

Note 2: When the CVR function is combined with other recording functions within the same unit, powering the other functions is allowed.

7.8.4 DATA LINK RECORDERS AND DATA LINK RECORDING SYSTEMS

7.8.4.1 GENERAL

(a) No person may operate an aeroplane or a helicopter for which the individual certificate of airworthiness is first issued on or after 01 January 2016, and which use any of the DLC applications referred to in IS 7.8.4.1 and are required to carry a CVR, unless the aircraft records the DLC messages on a crash-protected flight recorder.

(b) No person may operate an aeroplane or a helicopter modified on or after 01 January 2016, which

use any of the DLC applications referred to in IS 7.8.4.1, unless the aircraft records the DLC message on a crash-protected flight recorder or the installed DLC equipment is compliant with a TC issued or aircraft modification first approved prior to 01 January 2016.

(c) No person may operate an aeroplane or a helicopter where the aircraft flight path is authorised or controlled through the use of data link messages, unless all data link messages, both uplinks to the aircraft and downlinks from the aircraft, are recorded on the aircraft. As far as practicable, the time the messages were displayed to the flight crew and the time of the responses shall be recorded.

(d) No person may operate an aeroplane or a helicopter where the individual certificate of airworthiness was first issued before 01 January 2016, that are required to carry a CVR and are modified on or after 01 January 2016 to use any of the DLC applications referred to in IS 7.8.4.1 shall record the DLC messages on a crash-protected flight recorder.

Note 1: IS 7.8.4.1 contains table 5, Data link communications (DLC) recording installation clarification.

Note 2: A Class B AIR may be a means for recording DLC applications messages to and from the aircraft where it is not practical or is prohibitively expensive to record those DLC applications messages on FDR or CVR.

Note 3: The "aircraft modifications" refer to modifications to install the DLC equipment on the aircraft (e.g., structural, wiring).

7.8.4.2 DURATION

(a) The minimum recording duration shall be equal to the duration of the CVR.

7.8.4.3 CORRELATION

(a) Data link recording shall be correlated to the recorded flight deck audio.

7.8.5 AIRBORNE IMAGE RECORDER AND AIRBORNE IMAGE RECORDING SYSTEM

(a) No person shall operate an aircraft unless the AIR or AIRS shall start to record prior to the aircraft moving under its own power and shall record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power. In addition, depending on the availability of electrical power, the AIR or AIRS shall start to record as early as possible during the flight deck checks prior to engine start at the beginning of the flight until the flight deck checks immediately following engine shutdown at the end of the flight.

(b) AIRs are classified as follows:

(1) A Class A AIR or AIRS captures the general flight deck area in order to provide data supplemental to conventional flight recorders.

(2) A Class B AIR or AIRS captures data link message displays.

(3) A Class C AIR or AIRS captures instruments and control panels.

Note 1: To respect crew privacy, the flight deck area view may be designed as far as practical to exclude the head and shoulders of crew members whilst seated in their normal operating position.

Note 2: A Class C AIR or AIRS may be considered as a means for recording flight data where it is not practical or is prohibitively expensive to record on an FDR, or where an FDR is not required.

7.8.6 FLIGHT CREW-MACHINE INTERFACE RECORDING

7.8.6.1 GENERAL

(a) No person may operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 01 January 2023, unless the aeroplane shall be equipped with a crash-protected flight recorder that shall record the information displayed to the flight crew from electronic displays, as well as the operation of switches and selectors by the flight crew as defined in IS 7.8.2.1

(b) No person shall operate an aircraft unless the AIR or AIRS shall start to record prior to the aircraft moving under its own power and record continuously until the termination of the flight when the aircraft is no longer capable of moving under its own power. In addition, depending on the availability of electrical power, the AIR or AIRS shall start to record as early as possible during the flight deck checks prior to engine start at the beginning of the flight until the flight deck checks immediately following engine shutdown at the end of the flight.

7.8.6.2 APPLICATIONS TO BE RECORDED

(a) The operation of switches and selectors and the information displayed to the flight crew from electronic displays shall be captured by sensors or other electronic means.

(b) The recording of operation of switches and selectors by the flight crew shall include the following:

(1) Any switch or selector that will affect the operation and the navigation of the aircraft; and

(2) Selection of normal and alternate systems.

(c) The recording of the information displayed to the flight crew from electronic displays shall include the following:

(1) Primary flight and navigation displays;

(2) Aircraft system monitoring displays;

(3) Engine indication displays;

(4) Traffic, terrain, and weather displays;

(5) Crew alerting systems displays;

(6) Stand-by instruments; and

(7) Installed EFB to the extent it is practical.

(d) If image sensors are used, the recording of such images shall not capture the head and shoulders of the flight crew members whilst seated in their normal operating position.

7.8.6.3 DURATION

(a) The minimum flight crew-machine interface recording duration shall be at least for the last 2 hours.

7.8.6.4 CORRELATION

(a) Flight crew-machine interface recordings shall be able to be correlated to the recorded flight deck audio.

7.9 EMERGENCY, RESCUE, AND SURVIVAL EQUIPMENT

7.9.1.1 EMERGENCY EQUIPMENT – ALL AIRCRAFT

(a) [AAC] No person shall operate an aeroplane unless each item of emergency and flotation equipment is:

(1) Readily accessible to the crew and, with regard to equipment located in the passenger compartment, to passengers without appreciable time for preparatory procedures;

(2) Clearly identified and clearly marked to indicate its method of operation;

(3) Marked as to date of last inspection; and

(4) Marked as to contents when carried in a compartment or container.

7.9.1.2 EMERGENCY EXIT EQUIPMENT – PASSENGERS

(a) No person shall operate an aeroplane without the following emergency exit equipment:

(1) [AAC] Each passenger-carrying landplane emergency exit (other than over-the-wing) that

is more than 1.8 m (6 ft) from the ground with the aeroplane on the ground and the landing gear extended shall have an approved means to assist the occupants in descending to the ground.

(2) [AAC] Each passenger emergency exit, its means of access, and its means of opening shall be conspicuously marked by a sign visible to occupants approaching along the main passenger aisle.

(3) [AAC] Each passenger-carrying aeroplane shall have an emergency lighting system, independent of the main lighting system, that:

(i) Illuminates each passenger exit marking and locating sign;

(ii) Provides enough general lighting in the passenger cabin; and

(iii) [AOC] Includes floor proximity emergency escape path marking.

(4) [AAC] Each passenger emergency exit and the means of opening that exit from the outside shall be marked on the outside of the aeroplane.

(5) [AAC] Each passenger-carrying aeroplane shall be equipped with a slip-resistant escape route that meets the requirements under which that aeroplane was type certified.

(6) Each passenger-carrying aeroplane shall meet the detailed requirements contained in IS 7.9.1.2.

(b) No person shall operate a helicopter certificated with a maximum certificated take-off mass of 3 175 kg (7 000 lbs) or less and nine or less passenger seats without the following emergency exit equipment:

(1) NUMBER AND LOCATION.

(i) There shall be at least one emergency exit on each side of the cabin readily accessible to each passenger. One of these exits shall be usable in any probable attitude that may result from a crash.

(ii) Doors intended for normal use may also serve as emergency exits, provided that they meet the requirements of this section.

(2) If emergency flotation devices are installed, there shall be an emergency exit accessible to each passenger on each side of the cabin that is shown by test, demonstration, or analysis to:

(i) Be above the waterline; and

(ii) Be open without interference from flotation devices, whether stowed or deployed.

(c) TYPE AND OPERATION. Each emergency exit prescribed by paragraph 7.9.1.2(a) of this subsection shall:

(1) Consist of a movable window or panel, or an additional external door, providing an unobstructed opening that will admit a 48 cm (19 in) by 66 cm (26 in) ellipse;

(2) Have simple and obvious methods of opening, from the inside and from the outside, that do not require exceptional effort;

(3) Be arranged and marked so as to be readily located and opened even in darkness; and

(4) Be reasonably protected from jamming by fuselage deformation.

(d) DITCHING EMERGENCY EXITS FOR PASSENGERS. If certification with ditching provisions is requested, the markings required by paragraph 7.9.1.2(c)(3) of this subsection shall be designed to remain visible if the helicopter is capsized and the cabin is submerged.

(e) No person shall operate a helicopter certificated with a maximum certificated take-off mass of over

9 071 kg (20 000 lbs) and 10 or more passenger seats without the following emergency exit equipment:

(1) PASSENGER EMERGENCY EXITS AND OPENINGS. Openings with dimensions larger than those specified below may be used, regardless of shape, if the base of the opening has a flat surface of not less than the specified width. For the purpose of this part, the types of passenger emergency exit shall be as follows:

(i) TYPE I. This type shall have a rectangular opening of not less than 61 cm (24 in) wide by 122 cm (48 in) high, with corner radii not greater than one-third the width of the exit, in the passenger area in the side of the fuselage at floor level and as far away as practicable from areas that might become potential fire hazards in a crash.

(ii) TYPE II. This type is the same as Type I, except that the opening shall be at least 51 cm (20 in) wide by 112 cm (44 in) high.

(iii) TYPE III. This type is the same as Type I, except that:

(A) The opening shall be at least 51 cm (20 in) wide by 91 cm (36 in) high; and

(A) The exits need not be at floor level.

(iv) TYPE IV. This type shall have a rectangular opening of not less than 48 cm (19 in) wide by 66 cm (26 in) high, with corner radii not greater than one-third the width of the exit, in the side of the fuselage with a step-up inside the rotorcraft of not more than 74 cm (29 in).

(2) PASSENGER EMERGENCY EXITS – SIDE-OF-FUSELAGE. Emergency exits shall be accessible to the passengers and, except as provided in paragraph 7.9.1.2(e)(4) of this subsection, shall be provided in accordance with the following table: Emergency exits for each side of the fuselage.

Passenger Seating Capacity	**Emergency Exits for Each Side of the Fuselage**			
	Type I	**Type II**	**Type III**	**Type IV**
1 through 10				1
11 through 19			1 or	2
20 through 39		1		1
40 through 59	1			1
60 through 79	1		(1) or	2

(3) PASSENGER EMERGENCY EXITS – OTHER THAN SIDE-OF-FUSELAGE. In addition to the requirements of paragraph 7.9.1.2(e)(2) of this subsection:

(i) There shall be enough openings in the top, bottom, or ends of the fuselage to allow evacuation with the rotorcraft on its side; or

(ii) The probability of the rotorcraft coming to rest on its side in a crash landing shall be extremely remote.

(4) DITCHING EMERGENCY EXITS FOR PASSENGERS. If the helicopter was certificated with ditching provisions, ditching emergency exits shall be provided in accordance with the following:

(i) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 9 seats or less, 1 exit above the waterline in each side of the rotorcraft, meeting at least the dimensions of a Type IV exit.

(ii) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 10 seats or more, 1 exit above the waterline in a side of the rotorcraft meeting at least the dimensions of a Type III exit, for each unit (or part of a unit) of 35 passenger seats, but no less than 2 such exits in the passenger cabin, with 1 on each side of the rotorcraft. However, where it has been shown through analysis, ditching demonstrations, or any other tests found necessary, that the evacuation capability of the rotorcraft during ditching is improved by the use of larger exits, or by other means, the passenger seat-to-exit ratio may be increased.

(iii) Flotation devices, whether stowed or deployed, may not interfere with or obstruct the exits.

(5) RAMP EXITS. One Type I exit only, or one Type II exit only, that is required in the side of the fuselage under paragraph 7.9.1.2(e)(2) of this subsection, may be installed instead in the ramp of floor ramp rotorcraft if:

(i) Its installation in the side of the fuselage is impractical; and

(ii) Its installation in the ramp meets emergency exit access requirements in paragraph 7.9.1.2(e)(4) of this subsection.

(6) EMERGENCY EXIT ARRAGNEMENT.

(i) Each emergency exit shall consist of a movable door or hatch in the external walls of the fuselage and shall provide an unobstructed opening to the outside.

(ii) Each emergency exit shall be openable from the inside and from the outside.

(iii) The means of opening each emergency exit shall be simple and obvious and shall not require exceptional effort.

(iv) There shall be means for locking each emergency exit and for preventing opening in flight inadvertently or as a result of mechanical failure.

(v) There shall be means to minimise the probability of the jamming of any emergency exit in a minor crash landing as a result of fuselage deformation under the ultimate inertial forces:

(A) Upward – 1.5g

(B) Forward – 4.0g

(C) Sideward – 2.0g

(D) Downward – 4.0g

(7) Except as provided in paragraph 7.9.1.2(e)(9) of this subsection, each land-based rotorcraft emergency exit shall have an approved slide as stated in paragraph 7.9.1.2(e)(8) of this subsection, or its equivalent, to assist occupants in descending to the ground from each floor-level exit, and an approved rope, or its equivalent, for all other exits, if the exit threshold is more than 1.8 m (6 ft) above the ground:

(i) With the rotorcraft on the ground and with the landing gear extended;

(ii) With one or more legs or part of the landing gear collapsed, broken, or not extended; and

(iii) With the rotorcraft resting on its side, provided this was accomplished during the emergency evacuation test during type certification of the helicopter.

(8) The slide for each passenger emergency exit shall be a self-supporting slide or equivalent, and shall be designed to meet the following requirements

(i) It shall be automatically deployed, and deployment shall begin during the interval between the time the exit opening means is actuated from inside the rotorcraft and the time the exit is fully opened. However, each passenger emergency exit that is also a passenger entrance door or a service door shall be provided with means to prevent deployment of the slide when the exit is opened from either the inside or the outside under non-emergency conditions for normal use.

(ii) It shall be automatically erected within 10 seconds after deployment is begun.

(iii) It shall be of such length after full deployment that the lower end is self-supporting on the ground and provides safe evacuation of occupants to the ground after collapse of one or more legs or part of the landing gear.

(iv) It shall have the capability, in 25-knot winds directed from the most critical angle, to deploy and, with the assistance of only one person, to remain usable after full deployment to evacuate occupants safely to the ground.

(9) For helicopters having 30 or fewer passenger seats and having an exit threshold more than 1.8 m (6 ft) above the ground, a rope or other assist means may be used in place of the slide specified in paragraph 7.9.1.2(e)(7) of this subsection, provided this was accomplished during the emergency vacuation test during type certification of the helicopter.

(10) If a rope, with its attachment, is used for compliance with paragraphs 7.9.1.2(e)(7), (8), or (9) of this subsection, it shall:

(i) Withstand a 181-kg (400-lb) static load; and

(ii) Attach to the fuselage structure at or above the top of the emergency exit opening, or at another approved location if the stowed rope may reduce the pilot's view in-flight.

(11) EMERGENCY EXIT MARKING.

(i) Each passenger emergency exit, its means of access, and its means of opening shall be conspicuously marked for the guidance of occupants using the exits in daylight or in the dark. Such markings shall be designed to remain visible for rotorcraft equipped for overwater flights if the rotorcraft is capsized and the cabin is submerged.

(ii) The identity and location of each passenger emergency exit shall be recognisable from a distance equal to the width of the cabin.

(iii) The location of each passenger emergency exit shall be indicated by a sign visible to occupants approaching along the main passenger aisle. There shall be a locating sign:

(A) Next to or above the aisle near each floor emergency exit, except that one sign may serve two exits if both exits can be seen readily from that sign; and

(B) On each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible, the sign may be placed at another appropriate location.

(iv) Each passenger emergency exit marking and each locating sign shall have white letters 2.5 cm (1 in) high on a red background 5 cm (2 in) high, shall be self or electrically illuminated, and shall have a minimum luminescence (brightness) of

at least 160 micro lamberts. The colours may be reversed if this will increase the emergency illumination of the passenger compartment.

(v) The location of each passenger emergency exit operating handle and instructions for opening shall be shown:

(A) For each emergency exit, by a marking on or near the exit that is readable from a distance of 76 cm (30 in); and

(B) For each Type I or Type II emergency exit with a locking mechanism released by rotary motion of the handle, by:

1. A red arrow, with a shaft at least three-fourths of an inch wide and a head twice the width of the shaft, extending along at least 70 degrees of arc at a radius approximately equal to three-fourths of the handle length; and

2. The word “open” in red letters 2.5 cm (1 in) high, placed horizontally near the head of the arrow.

(12) Each emergency exit, and its means of opening, shall be marked on the outside of the rotorcraft. In addition, the following apply:

(i) There shall be a 2-inch coloured band outlining each passenger emergency exit, except small rotorcraft with a maximum certificated take-off mass of 5 700 kg (12 500 lbs) or less may have a 5-cm (2-in) coloured band outlining each exit release lever or device of passenger emergency exits that are normally used doors.

(ii) Each outside marking, including the band, shall have colour contrast to be readily distinguishable from the surrounding fuselage surface. The contrast shall be such that, if the reflectance of the darker colour is 15 per cent or less, the reflectance of the lighter colour shall be at least 45 per cent. “Reflectance” is the ratio of the luminous flux reflected by a body to the luminous flux it receives. When the reflectance of the darker colour is greater than 15 per cent, at least a 30 per cent difference between its reflectance and the reflectance of the lighter colour shall be provided.

(13) EMERGENCY LIGHTING. The following apply:

(i) A source of light with its power supply independent of the main lighting system shall be installed to:

(A) Illuminate each passenger emergency exit marking and locating sign; and

(B) Provide enough general lighting in the passenger cabin so that the average illumination, when measured at 102-cm (40-in) intervals at seat armrest height on the centerline of the main passenger aisle, is at least 0.05 foot-candle.

(ii) Exterior emergency lighting shall be provided at each emergency exit. The illumination may not be less than 0.05 foot-candle (measured normal to the direction of incident light) for minimum width on the ground surface, with landing gear extended, equal to the width of the emergency exit where an evacuee is likely to make first contact with the ground outside the cabin. The exterior emergency lighting may be provided by either interior or exterior sources with light intensity measurements made with the emergency exits open.

(iii) Each light required by paragraph 7.9.1.2(e)(13)(i) or (ii) of this subsection shall be operable manually from the flight deck and from a point in the passenger

compartment that is readily accessible. The flight deck control device shall have an "on," "off," and "armed" position so that when turned on at the flight deck or passenger compartment or when armed at the flight deck, the emergency lights will either illuminate or remain illuminated upon interruption of the rotorcraft's normal electric power.

(iv) Any means required to assist the occupants in descending to the ground shall be illuminated so that the erected assist means is visible from the rotorcraft.

(A) The assist means shall be provided with an illumination of not less than 0.03 foot-candle (measured normal to the direction of the incident light) at the ground end of the erected assist means where an evacuee using the established escape route may normally make first contact with the ground, with the rotorcraft in each of the attitudes corresponding to the collapse of one or more legs of the landing gear.

(B) If the emergency lighting subsystem illuminating the assist means is independent of the rotorcraft's main emergency lighting system, it will:

1. Automatically be activated when the assist means is erected;

2. Provide the illumination required by paragraph 7.9.1.2(e)(13)(iv)(A) of this subsection; and

3. Not be adversely affected by stowage.

(v) The energy supply to each emergency lighting unit shall provide the required level of illumination for at least 10 minutes at the critical ambient conditions after an emergency landing.

(vi) If storage batteries are used as the energy supply for the emergency lighting system, they may be recharged from the rotorcraft's main electrical power system provided the charging circuit is designed to preclude inadvertent battery discharge into charging circuit faults.

(14) EMERGENCY EXIT ACCESS.

(i) Each passageway between passenger compartments, and each passageway leading to Type I and Type II emergency exits, shall be:

(A) Unobstructed; and

(B) At least 51 cm (20) in wide.

(ii) For each emergency exit covered by paragraph 7.9.1.2(e)(7) of this subsection, there shall be enough space adjacent to that exit to allow a crew member to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required for that exit.

(iii) There shall be access from each aisle to each Type III and Type IV exit, and:

(A) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 20 or more, the projected opening of the exit provided shall not be obstructed by seats, berths, or other protrusions (including seatbacks in any position) for a distance from that exit of not less than the width of the narrowest passenger seat installed on the rotorcraft; and

(B) For rotorcraft that have a passenger seating configuration, excluding pilot seats, of 19 or less, there may be minor obstructions in the region described in paragraph 7.9.1.2(e)(14)(iii)(C) of this subsection, if there are compensating factors to maintain the effectiveness of the exit.

(15) MAIN ISLE WIDTH. The main passenger aisle width between seats shall equal or exceed the values in the following table:

Passenger Seating Capacity	Minimum Main Passenger Aisle Width	
	Less Than 64 cm (25 in) From Floor (inches)	64 cm (25 in) and More From Floor (inches)
10 or less	30 cm (12 in)	38 cm (15 in)
11 through 19	30 cm (12 in)	51 cm (20 in)
20 or more	38 cm (15 in)	51 cm (20 in)

7.9.1.3 VISUAL SIGNALLING DEVICES

(a) [AAC] No person may operate an aircraft over water, or across land areas that have been designated by Curaçao as areas in which search and rescue may be especially difficult, unless equipped with such signalling devices as may be appropriate to the area overflown, to include:

(1) At least one pyrotechnic signalling device for each life raft required for overwater operations; and

(2) Any other requirements specified by Curaçao.

7.9.1.4 SURVIVAL KITS

(a) [AAC] No person may operate an aircraft across land areas that have been designated by Curaçao as areas in which search and rescue may be especially difficult, unless it is equipped with enough of the survival kits specified in 7.9.1.18(d)(2) of this part for the number of occupants of the aeroplane or helicopter appropriate for the route to be flown.

(b) [AAC] No person may operate an aircraft over water as specified in 7.9.1.18(a) of this part unless it is equipped with enough of the survival kits specified in 7.9.1.18(d)(2) of this part for the number of occupants of the aeroplane or helicopter.

7.9.1.5 EMERGENCY LOCATOR TRANSMITTER

(a) No person shall operate an aeroplane without the following emergency locator equipment:

(1) [AAC] All aeroplanes on all flights shall be equipped with an automatically activated ELT that transmits simultaneously on both 406 MHz and 121.5 MHz and meets the technical standards specified by the Authority and the relevant portions of ICAO Annex 10, Volume III.

(2) [AAC] All aeroplanes authorised to carry more than 19 passengers shall be equipped with at least 1 automatic ELT or 2 ELTs of any type.

(3) [AAC] All aeroplanes authorised to carry more than 19 passengers, for which the individual certificate of airworthiness is first issued after 01 July 2008, shall be equipped with:

(i) At least two ELTs, one of which shall be automatic; or

(ii) At least one ELT and a capability that meets the requirements of 7.7.1.9 of this part unless some other means of compliance of aircraft distress tracking has been used.

(4) [AOC] No person may operate an aeroplane in long-range overwater operations, or over designated land areas where search and rescue may be especially difficult, without having on the aeroplane at least two ELTs, one of which shall be automatic.

(5) [AOC] At least one survival-type ELT shall be located with each life raft carried. (Section 7.9.1.18 of this part has additional requirements for life rafts.)

Note: Paragraph 7.9.1.5(a)(5) of this subsection is an FAA requirement and not an ICAO Standard. Most transport category aircraft come equipped with this equipment

(b) No person shall operate a helicopter without the following emergency locator equipment:

(1) [AAC] All helicopters on all flights shall be equipped with an automatically activated ELT that transmits simultaneously on both 406 MHz and 121.5 MHz and meets the technical standards specified by the Authority and the relevant portions of ICAO Annex 10, Volume III.

(2) [AAC] All helicopters operating on flights over water, or in a hostile environment designated as a land area where search and rescue may be especially difficult, shall be equipped with at least one automatic ELT and one ELT(S) in each life raft carried on board. (Section 7.9.1.18 of this part has additional requirements for life rafts.)

Note 1: When operating in a hostile environment, a safe ditching requires a helicopter to be designed for landing on water or certificated in accordance with ditching provisions.

Note 2: The judicious choice of numbers of ELTs, their type and placement on aircraft and associated floatable life support systems, will ensure the greatest chance of ELT activation in the event of an accident for aircraft operating over water or land, including areas especially difficult for search and rescue. Placement of transmitter units is a vital factor in ensuring optimal crash and fire protection. The placement of the control and switching devices (activation monitors) of automatic fixed ELTs and their associated operational procedures will also take into consideration the need for rapid detection of inadvertent activation and convenient manual switching by crew members.

(c) The date for a replacement of the battery in the ELT shall be legibly marked on the outside of the transmitter.

(d) [AAC] Batteries used in ELTs shall be replaced (or recharged if the battery is rechargeable) when:

(1) The transmitter has been in use for more than 1 cumulative hour; or

(2) Fifty per cent of their useful life (or, for rechargeable batteries, 50 per cent of their useful life of charge) has expired.

Note: The battery useful life (or useful life of charge) requirements do not apply to batteries (such as water-activated batteries) that are essentially unaffected during probable storage intervals.

7.9.1.6 PORTABLE FIRE EXTINGUISHERS

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with portable fire extinguishers of a type that, when discharged, will not cause dangerous contamination of the air within the aircraft. At least one portable fire extinguisher shall be located in:

(1) The pilot's compartment; and

(2) Each passenger compartment that is separate from the pilot's compartment and not readily accessible to the flight crew.

Note: Any portable fire extinguisher so fitted in accordance with the certificate of airworthiness of the aeroplane may count as one prescribed.

(b) [AOC] No person may operate an aircraft unless the aircraft is equipped with portable fire extinguishers accessible for use in crew, passenger, and cargo compartments as follows:

(1) The type and quantity of extinguishing agent shall be suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used.

(2) At least one portable fire extinguisher shall be provided and conveniently located for use in each Class E cargo compartment that is accessible to crew members during flight, and at least one portable fire extinguisher shall be located in each upper and lower lobe galley.

(3) At least one portable fire extinguisher shall be conveniently located on the flight deck for use by the flight crew.

(4) At least one portable fire extinguisher shall be conveniently located in the passenger compartment if the passenger compartment is separate from the flight deck and not readily accessible to the flight crew.

(5) For each aeroplane having a passenger seating capacity of more than 30, there shall be at least the following number of portable fire extinguishers conveniently located and uniformly distributed throughout the compartment:

Minimum Number of Hand Fire Extinguishers Passenger Seating Capacity	
7 through 29	1
30 through 60	2
61 through 200	3
201 through 300	4
301 through 400	5
401 through 500	6
501 through 600	7
601 and more	8

(c) [AAC] Any agent used in a portable fire extinguisher in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2011, and any extinguishing agent used in a portable fire extinguisher in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2018, shall:

(1) Meet the applicable minimum performance requirements of the Authority; and

(2) Not contain Halon 1211, Halon 1301, or Halon 2402.

Note 1: The substances listed in paragraph 7.9.1.6(c)(2) of this part, Halon 1211, Halon 1301, and Halon 2402, are listed Annex A, Group II, of the Montreal Protocol on Substances that Deplete the Ozone Layer*, 8th Edition, 2009, which is listed in ICAO Annex 6, Part I: 6.2.2.1; ICAO Annex 6, Part II: 2.4.2.3; and ICAO Annex 6, Part III, Section III: 4.1.3.2. and 4.2.2.1.*

Note 2: Information concerning extinguishing agents is contained in the UNEP Halons Options Committee Technical Note 1, New Technology Halon Alternatives, *and FAA Report DOT/FAA/AR-99-63*, Options to the Use of Halons for Aircraft Fire Suppression Systems*.*

7.9.1.7 LAVATORY FIRE EXTINGUISHER

(a) [AAC] No person may operate an aircraft unless each lavatory in the aircraft is equipped with a built-in fire extinguisher for each disposal receptacle for towels, paper, or waste located within the lavatory.

(b) [AAC] Built-in lavatory fire extinguishers shall be designed to discharge automatically into each disposal receptacle upon occurrence of a fire in the receptacle.

(c) [AAC] Any agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels

or waste in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2011 shall:

(1) Meet the applicable minimum performance requirements of the Authority; and

(2) Not contain Halon 1211, Halon 1301, or Halon 2402.

Note 1: The substances listed in paragraph 7.9.1.7(c)(2) of this part, Halon 1211, Halon 1301, and Halon 2402, are listed Annex A, Group II of the Montreal Protocol on Substances that Deplete the Ozone Layer*, 8th Edition, 2009, which is listed in ICAO Annex 6, Part I: 6.2.2.1; ICAO Annex 6, Part II: 2.4.2.3; and ICAO Annex 6, Part III, Section III: 4.1.3.2.*

Note 2: Information concerning extinguishing agents is contained in the UNEP Halons Options Committee Technical Note 1, New Technology Halon Alternatives*, and FAA Report DOT/FAA/AR-99-63,* Options to the Use of Halons for Aircraft Fire Suppression Systems.

7.9.1.8 LAVATORY SMOKE DETECTOR

(a) [AOC] No person may operate a passenger-carrying aeroplane unless each lavatory in the aeroplane is equipped with a smoke detector system or equivalent that provides:

(1) A warning light on the flight deck; or

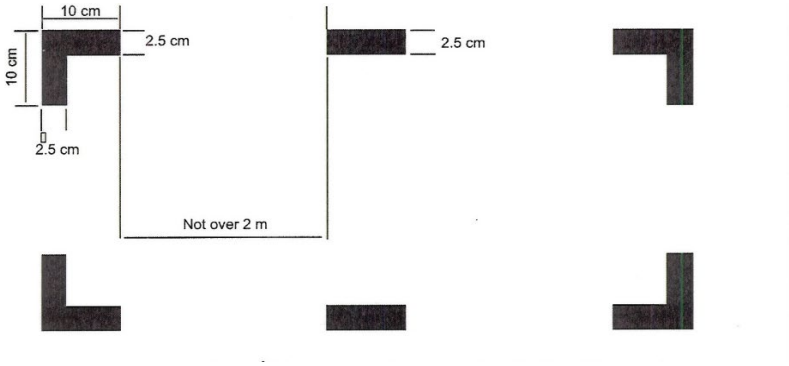
(2) A warning light or audio warning in the passenger cabin that shall be readily detected by a cabin crew member, taking into consideration the positioning of cabin crew members throughout the passenger compartment during various phases of flight.

7.9.1.9 CRASH AXE

(a) [AAC] No person shall operate an aeroplane of a maximum certificated take-off mass of over 5 700 kg unless the aeroplane is equipped with a crash axe appropriate for effective use in that type of aeroplane, stored in a place not visible to passengers on the aeroplane.

7.9.1.10 MARKING OF BREAK-IN POINTS

(a) [AAC] If areas of the fuselage suitable for break-in by rescue crews in an emergency are marked on an aeroplane, such areas shall be marked as shown below, and the colour of the markings shall be red or yellow and, if necessary, they shall be outlined in white to contrast with the background.



(b) If the corner markings are more than 2 m (6.5 ft) apart, intermediate lines 9 cm (3.5 in) x 3 cm (1.2 in) shall be inserted so that there is no more than 2 m (6.5 ft) between adjacent markings.

7.9.1.11 FIRST AID KITS AND UNIVERSAL PRECAUTION KITS

(a) FIRST AID KITS.

(1) No person may operate an aircraft unless the aircraft is equipped with an accessible, approved first aid kit(s) and the contents of the first aid kit(s) comply with the requirements prescribed in IS 7.9.1.11.

(2) The contents of first aid kits to be carried shall comply with the requirements prescribed in IS 7.9.1.11.

(3) Each aircraft shall carry first aid kits in accordance with at least the following schedule:

Number of Passenger Seats	Number of First Aid Kits
0-100	1
101-200	2
201-300	3
301-400	4
401-500	5
More than 500	6

(4) The location of first aid kits shall be:

(i) Distributed evenly throughout the aircraft;

(ii) Readily accessible to cabin crew members, if cabin crew members are required for flight; and

(iii) Located near the aircraft exits, should their use be required outside the aircraft in an emergency situation.

(b) UNIVERSAL PRECAUTION KIT.

(1) No person shall operate an aircraft that requires a cabin crew member unless the aircraft is equipped with at least one universal precaution kit.

(2) The contents of universal precaution kits to be carried shall comply with the requirements prescribed in IS 7.9.1.11.

(3) Each aircraft shall carry universal precaution kits in accordance with the following:

(i) Two kits; and

(ii) Additional kits, as determined by the Authority, at times of increased public health risk, such as during an outbreak of a serious communicable disease having pandemic potential.

7.9.1.12 EMERGENCY MEDICAL KIT – AEROPLANES

(a) [AOC] No person may operate a passenger flight in an aeroplane with 30 seats or more unless the aeroplane is equipped with an approved emergency medical kit for treatment of injuries or medical emergencies that might occur during flight time or in minor accidents.

(b) [AOC] The contents of emergency medical kits to be carried shall comply with the requirements prescribed in IS 7.9.1.12.

(c) [AOC] The medical kit shall be stored in a secure location.

7.9.1.13 OXYGEN STORAGE AND DISPENSING APPARATUS

(a) [AAC] All aircraft intended to be operated at altitudes requiring the use of supplemental oxygen shall be equipped with adequate oxygen storage and dispensing apparatus.

(b) [AAC] The oxygen apparatus, the minimum rate of oxygen flow, and the supply of oxygen shall meet applicable airworthiness standards for type certification in the transport category as specified by the Authority.

(c) [AAC] No person may operate an aircraft at altitudes above 3 000 m (10 000 ft) unless the aircraft is equipped with oxygen masks, located so as to be within the immediate reach of flight crew members while at their assigned duty station.

(d) [AAC] No person may operate a pressurised aeroplane at altitudes above 7 600 m (25 000 ft) unless:

(1) Flight crew member oxygen masks are available at the flight duty station and are of a quick donning type;

(2) Sufficient spare outlets and masks and/or sufficient portable oxygen units with masks are distributed evenly throughout the cabin to ensure immediate availability of oxygen to each required cabin crew member regardless of his location at the time of cabin pressurisation failure.

(e) [AAC] An oxygen-dispensing unit connected to oxygen supply terminals shall be installed so as to be immediately available to each occupant, wherever seated. The total number of dispensing units and outlets shall exceed the number of seats by at least 10 per cent. The extra units are to be evenly distributed throughout the cabin.

(f) [AAC] The amount of supplemental oxygen for sustenance required for a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures established for each operation in the OM and with the routes to be flown, and with the emergency procedures specified in the OM.

(g) [AAC] The process to determine the amount of supplemental oxygen needed for non-pressurised and pressurised aircraft is contained in IS 7.9.1.13.

7.9.1.14 PROTECTIVE BREATHING EQUIPMENT

(a) [AOC] No AOC holder may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg or having a maximum approved seating configuration of more than 19 seats unless the aeroplane has:

(1) PBE to protect the eyes, nose, and mouth of each flight crew member while on flight deck duty and to provide oxygen for a period of not less than 15 minutes; and

(2) Sufficient portable PBE to protect the eyes, nose, and mouth of all required cabin crew members and to provide breathing gas for a period of not less than 15 minutes.

(b) [AOC] The oxygen supply for PBE may be provided by the required supplemental oxygen system.

(c) [AOC] The PBE intended for flight crew use shall be conveniently located on the flight deck and shall be easily accessible for immediate use by required flight crew members at their assigned duty station.

(d) [AOC] The PBE intended for cabin crew use shall be installed adjacent to each required cabin crew member duty station.

(e) [AOC] Easily accessible portable PBE shall be provided and located at or adjacent to the required hand fire extinguishers except that, where the fire extinguisher is located inside a cargo compartment, the PBE shall be stowed outside but adjacent to the entrance to that compartment.

(f) [AOC] The PBE while in use shall not prevent required communication.

7.9.1.15 FIRST AID OXYGEN DISPENSING UNITS

(a) [AOC] No AOC holder may conduct a passenger-carrying operation in a pressurised aeroplane at altitudes above 7 600 m (25 000 ft), when a cabin crew member is required to be carried, unless the aeroplane is equipped with:

(1) Undiluted first aid oxygen for passengers who, for physiological reasons, may require oxygen following a cabin depressurisation; and

(2) A sufficient number of dispensing units, but in no case less than two, with a means for cabin crew to use the supply.

(b) [AOC] The amount of first aid oxygen required in paragraph 7.9.1.15(a) of this subsection for a particular operation and route shall be determined on the basis of:

(1) Flight duration after cabin depressurisation at cabin altitudes of more than 2 438 m (8 000 ft);

(2) An average flow rate of at least 3 litres STPD/minute/person; and

(3) At least 2 per cent of the passengers carried, but in no case for less than one person.

(c) The amount of first aid oxygen required for a particular operation shall be determined on the basis of cabin pressure altitudes and flight duration, consistent with the operating procedures established for each operation and route.

(d) The oxygen equipment provided shall be capable of generating a mass flow to each user of at least 4 litres per minute, STPD. Means may be provided to decrease the flow to not less than 2 litres per minute, STPD, at any altitude.

7.9.1.16 MEGAPHONES

(a) [AOC] Each person operating a passenger-carrying aeroplane shall have a portable battery-powered megaphone or megaphones readily accessible to the crew members assigned to direct emergency evacuation.

(b) [AOC] The number and location of megaphones required in paragraph 7.9.1.16(a) of this subsection shall be determined as follows:

(1) On aeroplanes with a seating capacity of more than 60 and less than 100 passengers, one megaphone shall be located at the most rearward location in the passenger cabin where it would be readily accessible to a normal cabin crew member seat;

(2) On aeroplanes with a seating capacity of more than 99 passengers, two megaphones shall be installed in the passenger cabin: one shall be located at the forward end and the other shall be located at the most rearward location where it would be readily accessible to a normal cabin crew member seat; and

(3) For aeroplanes with more than one passenger deck, in all cases when the total passenger seating configuration of a deck is more than 60, at least one megaphone is required on the deck.

Note: The Authority may grant an exemption from the requirements of paragraph 7.9.1.16(b) of this part if the Authority finds that a different location will be more useful for evacuation of persons during an emergency.

7.9.1.17 INDIVIDUAL FLOTATION DEVICES

(a) LANDPLANES.

(1) [AAC] Landplanes shall carry the equipment prescribed in paragraph 7.9.1.17(a)(2) of this subsection:

(i) When flying en route over water beyond gliding distance from the shore;

(ii) When flying over water at a distance of more than 93 km (50 NM) away from the shore for aircraft capable of maintaining safe altitude after the failure of one engine for two-engine aircraft and the failure of two engines for three- or four-engine aircraft; or

(iii) When taking off or landing at an aerodrome where the Authority has determined the take-off or approach path is so disposed over water that in the event of a mishap there would be the likelihood of a ditching.

(2) [AAC] One life jacket or equivalent flotation device equipped with a means of electric illumination shall be carried for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(b) SEAPLANES.

(1) [AAC] For all flights, seaplanes shall be equipped with the equipment prescribed in paragraph 7.9.1.17(a)(2) of this subsection.

Note: Life jackets accessible from seats or berths located in crew rest compartments are required only if the seats or berths concerned are certified to be occupied during take-off and landing.

7.9.1.18 LIFE RAFTS

(a) [AAC] In addition to the equipment prescribed in 7.9.1.17 and 7.9.1.19 of this part, life rafts in sufficient numbers to carry all persons on board shall be installed in:

(1) Aeroplanes operated on long range overwater flights;

(2) All other aeroplanes when they are operated over water away from land suitable for making an emergency landing at a distance of more than 185 km (100 NM) in the case of single-engine aeroplanes, and more than 370 km (200 NM) in the case of multi-engine aeroplanes capable of continuing flight with one engine inoperative;

Note: Both 14 CFR and JAR-OPS 1 set the limit at 30 minutes or 100 NM away from land suitable for making an emergency landing.

(3) Class 1 and Class 2 helicopters when they are operated over water at a distance from land corresponding to more than 10 minutes at normal cruise speed; and

(4) Class 3 helicopters when they are operated over water beyond autorotational or safe forced landing distance from land.

(b) [AOC] An aircraft shall have life rafts with a sufficient capacity to carry all persons on board in the event of the loss of one raft of the largest capacity.

(c) All life rafts shall be stowed so as to facilitate their ready use in an emergency.

(d) Life rafts shall be equipped with the following life-sustaining equipment:

(1) An electric survivor locator light;

(2) A survival kit;

(3) A pyrotechnic signalling device; and

(4) An ELT. (Section 7.9.1.5 of this part provides additional requirements for first aid oxygen dispensing units.)

(e) [AOC] In helicopters, life rafts that are not deployable by remote control and that have a mass of more than 40 kg shall be equipped with a means of mechanically assisted deployment.

Note: The ELT requirement in paragraph 7.9.1.18(d)(4) of this part is an FAA requirement and not an ICAO Standard.

7.9.1.19 FLOTATION DEVICE FOR HELICOPTER DITCHING

(a) [AAC] All helicopters flying over water at a distance from land corresponding to more than 10 minutes at normal cruise speed in the case of performance Class 1 or Class 2 helicopters, or flying over water beyond autorotational or safe forced landing distance from land in the case of performance Class 3 helicopters, shall be fitted with a permanent or rapidly deployable means of floatation so as to ensure a safe ditching of the helicopter.

7.10 MISCELLANEOUS SYSTEMS AND EQUIPMENT

7.10.1.1 SEATS, SAFETY BELTS, AND SHOULDER HARNESSES

(a) [AAC] Each aircraft used in passenger-carrying operations shall be equipped with the following seats, safety belts, and shoulder harnesses that meet the airworthiness requirements for type certification of that aircraft:

(1) A seat with safety belt for each person on board over an age to be determined by Curaçao; and a restraining belt for each berth on board the aircraft.

(2) A safety harness for each flight crew member seat.

(i) The safety harness for each pilot seat shall incorporate a device that will automatically restrain the occupant's torso in the event of rapid deceleration.

(ii) The safety harness for each pilot seat, which includes shoulder straps and a seat belt, shall incorporate a restraining device to prevent a suddenly incapacitated pilot from interfering with the flight controls.

(3) A forward or rearward facing (within 15 degrees of the longitudinal axis of the aeroplane) seat equipped with a safety harness for each cabin crew member station in the passenger compartment.

(4) The cabin crew member seats shall be located near floor level and other emergency exits as required by the Authority for emergency evacuation.

7.10.1.2 PASSENGER AND PILOT COMPARTMENT DOORS – AEROPLANES

(a) [AOC] PILOT COMPARTMENT DOOR.

(1) No person may operate a passenger-carrying aeroplane of a maximum certificated take-off mass of over 45 500 kg (100 310 lbs) or with a passenger seating capacity greater than 60 unless that aircraft is equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons.

(2) No person may operate a passenger-carrying aeroplane having a certificated take-off mass of less than 45 500 kg (100 310 lbs) or with a passenger seating capacity of less than 60 unless that aircraft is equipped with an approved flight crew compartment door, where practicable, that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons.

(3) Each pilot compartment door shall be capable of being locked and unlocked from either pilot station.

(4) A means shall be provided for monitoring from either pilot station the entire door area outside the pilot compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

(b) [AOC] PASSENGER COMPARTMENT DOORS.

(1) Each passenger compartment door shall have:

(i) A means for the crew, in an emergency, to unlock each door that leads to a compartment that is normally accessible to passengers and that can be locked

by passengers;

(ii) A placard on each door used to access a required passenger emergency exit, indicating that such door shall be open during take-off and landing; and

(iii) A means readily available for each crew member to unlock any door that separates a passenger compartment from another compartment that has emergency exit provisions.

7.10.1.3 PASSENGER INFORMATION SIGNS

(a) [AOC] No person shall operate a passenger-carrying aeroplane with a maximum certificated take-off mass of 5 700 kg (12 500 lbs) or more unless the aeroplane is equipped with:

(1) At least one passenger information sign (using either letters or symbols) notifying when smoking is prohibited and one sign (using either letters or symbols) notifying when safety belts shall be fastened, and which shall, when illuminated, be legible to each person seated in the passenger cabin under all probable conditions of cabin illumination;

(2) Signs that notify when safety belts shall be fastened and when smoking is prohibited shall be so constructed that the crew can turn them on and off; and

(3) A sign or placard affixed to each forward bulkhead and each passenger seat back that reads “Fasten Seat Belt While Seated.”

(b) [AAC] Notwithstanding paragraph 7.10.1.3(a) of this subsection, no person shall operate an aircraft in which all passenger seats are not visible from the flight deck, unless the aircraft is equipped with a means of indicating to all passengers and cabin crew when seat belts shall be fastened and when smoking is not allowed.

7.10.1.4 MATERIALS FOR CABIN INTERIORS

(a) No person shall operate an aircraft unless each compartment used by the crew or passengers meets the following requirements of the State of Design:

(1) Materials shall be at least flash resistant;

(2) The wall and ceiling linings and the covering of upholstering, floors, and furnishings shall be flame resistant;

(3) Each compartment where smoking is to be allowed shall be equipped with self-contained ashtrays that are completely removable, and other compartments shall be placarded against smoking; and

(4) Each receptacle for used towels, papers, and wastes shall be of fire-resistant material and shall have a cover or other means of containing possible fires started in the receptacles.

(b) For aircraft for which the State of Design has developed new airworthiness requirements for cabin interiors since original type certification, the owner of the aircraft shall ensure that all materials that do not meet current State of Design requirements shall have them replaced upon the first major overhaul of the aircraft cabin or refurbishing of the cabin interior with materials that meet the new requirements.

7.10.1.5 MATERIALS FOR CARGO AND BAGGAGE COMPARTMENTS

(a) [AAC] Each cargo compartment shall have ceiling and sidewall liner panels that are constructed of materials that meet the test requirements for flame resistance of cargo compartment liners as prescribed for type certification.

Note: The term “liner” includes any design feature, such as a joint or fastener, that may affect the capability of the liner to safely contain fire.

7.10.1.6 POWER SUPPLY, DISTRIBUTION, AND INDICATION SYSTEM

(a) [AOC] No AOC holder may operate an aeroplane unless the aeroplane is equipped with:

(1) A power supply and distribution system that meets the airworthiness requirements for certification of an aeroplane in the transport category, as specified by the Authority; or

(2) A power supply and distribution system that is able to produce and distribute the load for the required instruments and equipment, with the use of an auxiliary power supply if any one power source or component of the power distribution system fails; and

Note: The use of common elements in the power system may be approved if the Authority finds that they are designed to be reasonably protected against malfunctioning.

(3) A means for indicating the adequacy of the power being supplied to required flight instruments.

(b) [AOC] Engine-driven sources of energy, when used, shall be redundant.

7.10.1.7 PROTECTIVE CIRCUIT FUSES

(a) [AOC] No person may operate an aeroplane in which protective fuses are installed unless there are spare fuses available of appropriate ratings for replacement of those accessible in flight.

7.10.1.8 ICING PROTECTION EQUIPMENT

(a) [AAC] No person may operate an aircraft in expected or actual icing conditions unless the aircraft is equipped for the prevention or removal of ice on windshields, wings, control surfaces, empennage, propellers, rotor blades, or other parts of the aircraft where ice formation will adversely affect the safety of the aircraft.

(b) [AAC] No person may operate an aircraft in expected or actual icing conditions at night unless the aircraft is equipped with a means to illuminate or detect the formation of ice. Any illumination that is used shall be of a type that will not cause glare or reflection that may handicap crew members in the performance of their duties.

7.10.1.9 PITOT HEAT AND INDICATION SYSTEMS

(a) [AAC] No person may operate an aircraft in instrument flight conditions unless the aircraft is equipped with a pitot heat system.

(b) [AOC] No AOC holder may operate an aeroplane equipped with a flight instrument pitot heating system unless the aeroplane is also equipped with an operable pitot heat indication system that complies with the following requirements:

(1) The indication provided shall incorporate an amber light that is in clear view of a flight crew member. The indication provided shall be designed to alert the flight crew if either:

(2) The pitot heating system is switched “off”; and

(3) The pitot heating system is switched “on” and any pitot tube heating element is inoperative; or

(4) An integrated flight crew alerting system that will notify the crew if the pitot system is malfunctioning.

7.10.1.10 STATIC PRESSURE SYSTEM

(a) [AAC] No person may operate an aircraft unless the aircraft is equipped with a static pressure system vented to the outside atmospheric pressure so that it will be least affected by airflow variation or moisture or other foreign matter, and installed so as to be airtight except for the vent.

(b) [AAC] No person may operate an aircraft in IFR or VFR at night unless the aircraft is equipped with a static pressure system vented to the outside atmospheric pressure so that it will be least affected by airflow variation or moisture or other foreign matter, and installed so as to be airtight except for

the vent, and a means of selecting an alternative source of static pressure.

(c) [AOC] No person may operate an aircraft unless the aircraft is equipped with two independent static pressure systems vented to the outside atmospheric pressure so that they will be least affected by airflow variation or moisture or other foreign matter and installed so as to be airtight except for the vent.

7.10.1.11 WINDSHIELD WIPERS

(a) [AOC] No AOC holder may operate an aeroplane with a maximum certificated take-off mass of over 5 700 kg unless the aeroplane is equipped at each pilot station with a windshield wiper or equivalent means to maintain a clear portion of the windshield during precipitation.

7.10.1.12 CHART HOLDER

(a) [AOC] No person may operate an aeroplane in commercial air transport operations under single-pilot IFR or at night unless a chart holder is installed in an easily readable position that can be illuminated for night operations.

7.10.1.13 COSMIC RADIATION DETECTION EQUIPMENT

(a) [AAC] No person shall operate an aeroplane intended to be operated above 15 000 m (49 000 ft) unless the aeroplane is equipped with:

(1) An instrument to measure and indicate continuously the dose rate of total cosmic radiation being received (i.e., the total of ionising and neutron radiation of galactic and solar origin) and the cumulative dose on each flight;

(2) A system of on-board quarterly radiation sampling acceptable to the Authority, as prescribed in IS 7.10.1.13; and

(3) A display unit readily visible to a flight crew member.

(b) The operator shall have the equipment in paragraph 7.10.1.13(a) of this subsection calibrated on the basis of assumptions acceptable to the Authority.

7.10.1.14 MARITIME SOUND SIGNALLING DEVICE

(a) [AAC] All seaplanes for all flights shall be equipped with equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea, where applicable.

7.10.1.15 ANCHORS

(a) [AAC] No person shall operate a seaplane unless the seaplane is equipped with:

(1) One anchor; and

(2) One sea anchor (drogue).

(b) *Note: "Seaplanes" includes amphibians operated as seaplanes.*

CURAÇAO CIVIL AVIATION REGULATIONS

PART 7 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 7.8.1.2 would reflect a standard required by 7.8.1.2 of this part.

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PART 7 – IMPLEMENTING STANDARDS

IS 7.2.1.7 CATEGORY II: INSTRUMENTS AND EQUIPMENT APPROVAL AND CONTINUING AIRWORTHINESS REQUIREMENTS

(a) GENERAL. The instruments and equipment required by 7.2.1.7 of this part shall be approved as provided in this IS before being used in CAT II operations. Before presenting an aircraft for approval of the instruments and equipment, it shall be shown that since the beginning of the 12th calendar month before the date of submission:

(1) The ILS localiser and glide slope equipment were bench checked according to the manufacturer's instructions and found to meet those standards specified in RTCA Paper 23-63/DO-177 dated 14 March 1963, *Standard Adjustment Criteria for Airborne Localizer and Glideslope Receivers*;

(2) The altimeters and the static pressure systems were tested and inspected; and

(3) All other instruments and items of equipment specified in 7.2.1.7 of this part that are listed in the proposed maintenance programme were bench checked and found to meet the manufacturer's specifications.

(b) FLIGHT CONTROL GUIDANCE SYSTEM. All components of the flight control guidance system shall be approved as installed by the evaluation programme specified in paragraph (e) of this IS if they have not been approved for CAT III operations under applicable type or supplemental type certification procedures. In addition, subsequent changes to make, model, or design of the components shall be approved under this paragraph. Related systems or devices, such as the autothrottle and computed missed approach guidance system, shall be approved in the same manner if they are to be used for CAT II operations.

(c) RADIO ALTIMETER. A radio altimeter shall meet the performance criteria of this paragraph for original approval and after each subsequent modification.

(1) The radio altimeter shall display to the flight crew clearly and positively the wheel height of the main landing gear above the terrain;

(2) The radio altimeter shall display wheel height above the terrain to an accuracy of 1.5 m (±5 ft) or 5 per cent, whichever is greater, under the following conditions:

(i) Pitch angles of zero to ±5° about the mean approach attitude;

(ii) Roll angles of zero to 20° in either direction;

(iii) Forward velocities from minimum approach speed up to 200 knots; or

(iv) Sink rates from zero to 5 m (15 ft) per second at altitudes from 31 m (100 ft) to 61 m (200 ft).

(3) Over level ground, the radio altimeter shall track the actual altitude of the aircraft without significant lag or oscillation;

(4) With the aircraft at an altitude of 61 m (200 ft) or less, any abrupt change in terrain representing no more than 10 per cent of the aircraft's altitude shall not cause the altimeter to unlock, and indicator response to such changes shall not exceed 0.1 seconds and, in addition, if the system unlocks for greater changes, it shall reacquire the signal in less than 1 second;

(5) Systems that contain a push-to-test feature shall test the entire system (with or without an antenna) at a simulated altitude of less than 152 m (500 ft;) and

(6) The system shall provide to the flight crew a positive failure warning display any time there is a loss of power or an absence of ground return signals within the designed range of operating altitudes.

(d) OTHER INSTRUMENTS AND EQUIPMENT. All other instruments and items of equipment required by 7.2.1.7 of this part shall be capable of performing as necessary for CAT II operations. Approval is also required after each subsequent modification to these instruments and items of equipment.

(e) EVALUATION PROGRAMME.

(f) APPLICATION. Approval by evaluation is requested as a part of the application for approval of the CAT II manual.

(g) DEMONSTRATIONS. Unless otherwise authorised by the Authority, the evaluation programme for each aircraft requires the demonstrations specified in this paragraph. At least 50 ILS approaches shall be flown with at least 5 approaches on each of 3 different ILS facilities and no more than one-half of the total approaches on any one ILS facility. All approaches shall be flown under simulated instrument conditions to a 30 m (100 ft) DH and 90 per cent of the total approaches made shall be successful. A successful approach is one in which:

(1) At the 30 m (100 ft) DH, the indicated airspeed and heading are satisfactory for a normal flare and landing (speed shall be ±5 knots of programmed airspeed, but may not be less than computed threshold speed if autothrottles are used);

(2) The aircraft, at the 30 m (100 foot) DH, is positioned so that the flight deck is within, and tracking so as to remain within, the lateral confines of the runway extended;

(3) Deviation from glide slope after leaving the outer marker does not exceed 50 per cent of full-scale deflection as displayed on the ILS indicator;

(4) No unusual roughness or excessive attitude changes occur after leaving the middle marker; and

(5) In the case of an aircraft equipped with an approach coupler, the aircraft is sufficiently in trim when the approach coupler is disconnected at the DH to allow for the continuation of a normal approach and landing.

(h) RECORDS. During the evaluation programme, the following information shall be maintained by the applicant for the aircraft with respect to each approach and shall be made available to the Authority upon request:

(1) Each deficiency in airborne instruments and equipment that prevented the initiation of an approach;

(2) The reasons for discontinuing an approach, including the altitude above the runway at which it was discontinued;

(3) Speed control at the 30 m (100 ft) DH if autothrottles are used;

(4) Trim condition of the aircraft upon disconnecting the auto coupler with respect to continuation to flare and landing;

(5) Position of the aircraft at the middle marker and at the DH indicated both on a diagram of the basic ILS display and a diagram of the runway extended to the middle marker. Estimated touchdown point shall be indicated on the runway diagram;

(6) Compatibility of the flight director with the auto coupler, if applicable; and

(7) Quality of overall system performance.

(i) EVALUATION. A final evaluation of the flight control guidance system is made upon successful completion of the demonstrations. If no hazardous tendencies have been displayed or are otherwise known to exist, the system is approved as installed.

(j) Each maintenance programme for CAT II instruments and equipment shall contain the following:

(1) A list of each instrument and item of equipment specified in 7.2.1.7 of this part that is installed in the aircraft and approved for CAT II operations, including the make and model of those specified in paragraph 7.2.1.7(a)(1) of this part;

(2) A schedule that provides for the performance of inspections under paragraph (5) of this IS within 3 calendar months after the date of the previous inspection. The inspection shall be performed by a person authorised by Part 5 of these regulations, except that each alternate inspection may be replaced by a functional flight check. This functional flight check shall be performed by a pilot holding a CAT II pilot authorisation for the type aircraft checked;

(3) A schedule that provides for the performance of bench checks for each listed instrument and item of equipment that is specified in paragraph 7.2.1.7(a)(1) of this part within 12 calendar months after the date of the previous bench check;

(4) A schedule that provides for the performance of a test and inspection of each static pressure system within 12 calendar months after the date of the previous test and inspection;

(5) The procedures for the performance of the periodic inspections and functional flight checks to determine the ability of each listed instrument and item of equipment specified in paragraph 7.2.1.7(a)(1) of this part to perform as approved for CAT II operations, including a procedure for recording functional flight checks;

(6) A procedure for assuring that the pilot is informed of all defects in listed instruments and items of equipment;

(7) A procedure for assuring that the condition of each listed instrument and item of equipment upon which maintenance is performed is at least equal to its CAT II approval condition before it is returned to service for CAT II operations; and

(8) A procedure for an entry in the continuing airworthiness records that shows the date, aerodrome, and reasons for each discontinued CAT II operation because of a malfunction of a listed instrument or item of equipment.

(k) BENCH CHECK. A bench check required by this section shall comply with this paragraph.

(1) Except as specified in paragraph (k)(2) of this IS, the bench check shall be performed by an AMO holding one of the following ratings as appropriate to the equipment checked:

(i) An instrument rating; or

(ii) An avionics rating.

(2) The bench check shall be performed by a certificated air operator on aircraft identified in its approved operations specifications with the approved authorisations to perform maintenance and approve for return to service its own aircraft maintained under a continuing airworthiness maintenance programme under an equivalent system identified in Part 9 of these regulations.

(3) The bench check shall consist of removal of an instrument or item of equipment and performance of the following:

(i) A visual inspection for cleanliness, impending failure, and the need for lubrication, repair, or replacement of parts;

(ii) Correction of items found by that visual inspection; and

(iii) Calibration to at least the manufacturer's specifications unless otherwise specified in the approved CAT II Manual for the aircraft in which the instrument or item of equipment is installed.

(l) EXTENSIONS. After the completion of one maintenance cycle of 12 calendar months, a request to extend the period for checks, tests, and inspections is approved if it is shown that the performance of particular equipment justifies the requested extension.

IS 7.4.1.4 REDUCED VERTICAL SEPARATION MINIMUM – ALTIMETRY SYSTEM PERFORMANCE REQUIREMENTS FOR OPERATIONS IN REDUCED VERTICAL SEPARATION MINIMUM AIRSPACE

(a) With respect to groups of aeroplanes that are nominally of identical design and build with respect to all details that may influence the accuracy of height-keeping performance, the height-keeping performance capability shall be such that the TVE for the group of aeroplanes shall have a mean no greater than 25 m (80 ft) in magnitude and shall have a standard deviation no greater than $28 – 0.013z^2$ for $0 \leq z \leq 25$ when z is the magnitude of the mean TVE in metres, or $92 – 0.004z^2$ for $0 \leq z \leq 80$ where z is in feet. In addition, the components of TVE shall have the following characteristics:

(1) The mean ASE of the group shall not exceed 25 m (80 ft) in magnitude;

(2) The sum of the absolute value of the mean ASE and of three standard deviations of ASE shall not exceed 75 m (245 ft); and

(3) The differences between cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and, in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

(b) With respect to aeroplanes for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aeroplanes encompassed by paragraph (a) of this IS, the height-keeping performance capability shall be such that the components of the TVE of the aeroplane have the following characteristics:

(1) The ASE of the aeroplane shall not exceed 60 m (200 ft) in magnitude under all flight conditions; and

(2) The differences between the cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and, in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

IS 7.8.1.2 CONSTRUCTION AND INSTALLATION

(a) The following requirements shall apply to an ADFR:

(1) Deployment shall take place when the aeroplane structure has been significantly deformed;

(2) Deployment shall take place when an aeroplane sinks in water;

(3) The ADFR shall not be capable of manual deployment;

(4) The ADFR shall be able to float on water;

(5) The ADFR deployment shall not compromise the safe continuation of the flight;

(6) The ADFR deployment shall not significantly reduce the chance of survival of the recorder and of successful transmission by its ELT;

(7) The ADFR deployment shall not release more than one piece;

(8) An alert shall be made to the flight crew when the ADFR is no longer captive to the aircraft;

(9) The flight crew shall have no means to disable ADFR deployment when the aircraft is airborne;

(10) The ADFR shall contain an integrated ELT, which shall activate automatically during the deployment sequence. Such ELT may be of a type that is activated in-flight and provides information from which a position can be determined; and

(11) The integrated ELT of an ADFR shall satisfy the same requirements as an ELT required to be installed on an aeroplane. The integrated ELT shall at least have the same performance as the fixed ELT to maximise detection of the transmitted signal.

Note 1: Refer to ICAO Doc 10054, Manual on Location of Aircraft in Distress and Flight Recorder Data Recovery*, for more information on ADFR.*

Note 2: If an integrated ELT of a type that is activated in flight is used within an ADFR, it may be a means to comply with the requirements prescribed in 7.7.1.9 of this part.

IS 7.8.1.4 CONTINUED SERVICEABILITY AND INSPECTION OF FLIGHT RECORDER SYSTEMS

(a) The operator shall, prior to the first flight of the day, monitor the built-in test features for the flight recorders and flight data acquisition unit, when installed, by manual and/or automatic checks.

(b) FDR systems or ADRS, CVR systems or CARS, and AIR systems or AIRS shall have recording inspection intervals of 1 year; subject to the approval from the Authority, this period may be extended to 2 years provided these systems have demonstrated a high integrity of serviceability and self-monitoring. DLR systems or DLRS shall have recording inspection intervals of 2 years; subject to the approval from the Authority, this period may be extended to 4 years provided these systems have demonstrated high integrity of serviceability and self-monitoring.

(c) The operator shall carry out inspections as follows:

(1) An analysis of the recorded data from the flight recorders shall ensure that the recorder operates correctly for the nominal duration of the recording;

(2) The FDR or ADRS recording from a complete flight shall be examined in engineering units to evaluate the validity of all recorded parameters. Particular attention shall be given to parameters from sensors dedicated to the FDR or ADRS. Parameters taken from the aircraft's electrical bus system need not be checked if their serviceability can be detected by other aircraft systems;

(3) The readout facility shall have the necessary software to accurately convert the recorded values to engineering units and to determine the status of discrete signals;

(4) An examination of the recorded signal on the CVR or the CARS shall be carried out by replay of the CVR or CARS recording. While installed in the aircraft, the CVR or CARS shall record test signals from each aircraft source and from relevant external sources to ensure that all required signals meet intelligibility standards;

(5) Where practicable, during the examination, a sample of in-flight recordings of the CVR or CARS shall be examined for evidence that the intelligibility of the signal is acceptable; and

(6) An examination of the recorded images on the AIR or AIRS shall be carried out by replay of the AIR or AIRS recording. While installed in the aircraft, the AIR or AIRS shall record test images from each aircraft source and from relevant external sources to ensure that all required images meet recording quality standards.

(7) An examination of the recorded messages on the DLR or DLRS shall be carried out by replay of the DLR or DLRS recording.

(d) A flight recorder system shall be considered unserviceable if there is a significant period of poor quality data, unintelligible signals, or if one or more of the mandatory parameters is not recorded correctly.

(e) The operator shall make available a report of the recording inspection on request to Authorities for monitoring purposes.

(f) Calibration of the FDR system:

(1) For those parameters that have sensors dedicated only to the FDR and are not checked by other means, recalibration shall be carried out at an interval determined by the continuing airworthiness information for the FDR system. In the absence of such information, a recalibration shall be carried out at least every 5 years. The recalibration shall determine any discrepancies in the engineering conversion routines for the mandatory parameters and ensure that parameters are being recorded within the calibration tolerances; and

(2) When the parameters of altitude and airspeed are provided by sensors that are dedicated to the FDR system, there shall be a recalibration performed at an interval determined by the continuing airworthiness information for the FDR system. In the absence of such information, a recalibration shall be carried out at least every 2 years.

IS 7.8.2.1(A) FLIGHT DATA RECORDERS: TYPES AND PARAMETERS – AEROPLANE

(a) PARAMETERS – GENERAL.

(1) The parameters that satisfy the requirements for FDRs are listed in table 1.

(2) The number of parameters to be recorded shall depend on aeroplane complexity.

(3) The parameters without an asterisk (*) are mandatory parameters that shall be recorded regardless of aeroplane complexity.

(4) The parameters designated by an asterisk (*) shall be recorded if an information data source for the parameter is used by aeroplane systems or the flight crew to operate the aeroplane. However, other parameters may be substituted with due regard to the aeroplane type and the characteristics of the recording equipment.

(b) If further FDR recording capacity is available, recording of the following additional information shall be considered:

(1) Operational information from electronic display systems, such as EFIS, ECAM, and EICAS. Use the following order of priority:

(i) Parameters selected by the flight crew relating to the desired flight path (e.g., barometric pressure setting, selected altitude, selected airspeed, DH, and autoflight system engagement and mode indications if not recorded from another source);

(ii) Display system selection/status (e.g., SECTOR, PLAN, ROSE, NAV, WXR, COMPOSITE, COPY);

(iii) Warnings and alerts; and

(iv) The identity of displayed pages for emergency procedures and checklists.

(2) Retardation information including brake application for use in the investigation of landing overruns and rejected take-offs.

(c) ALL FLIGHT DECK FLIGHT CONTROL FORCES*. Control wheel, control column, rudder pedal flight deck input forces

(d) VERTICAL DEVIATION*. ILS glide path, MLS elevation, GNSS approach path

(e) HORIZONTAL DEVIATION*. ILS localiser, MLS azimuth, GNSS approach path

(f) DME 1 and 2 distances*

(g) PRIMARY NAVIGATION SYSTEM REFERENCE*. GNSS, INS, VOR/DME, MLS, Loran C, ILS

(h) BRAKES*. Left and right brake pressure, left and right brake pedal position

(i) Date*

(j) Event marker*

(k) Head up display in use*

(l) Para visual display on*

Note: It is not intended that aeroplanes issued with an individual certificate of airworthiness before 01 January 2016 be modified to meet the range, sampling, accuracy or resolution guidance detailed in this IS.

(m) PARAMETERS – FLIGHT PATH AND SPEED AS DISPLAYED TO THE PILOT(S). The parameters that satisfy the requirements for flight path and speed as displayed to the pilot(s) are listed below. The parameters without an asterisk (*) are mandatory parameters that shall be recorded. In addition, the parameters designated by an asterisk (*) shall be recorded if an information source for the parameter is displayed to the pilot(s) and is practicable to record:

(1) Pressure altitude

(2) Indicated airspeed or calibrated airspeed

(3) Heading (primary flight crew reference)

(4) Pitch attitude

(5) Roll attitude

(6) Engine thrust/power

(7) Landing gear status*

(8) Total or outside air temperature*

(9) Time*

(10) Navigation data*: drift angle, wind speed, wind direction, latitude/longitude

(11) Radio altitude*

(n) The parameters that satisfy the requirements for ADRS are listed in IS 7.8.2.2.

Table 1. Parameter Characteristics for Flight Data Recorders – Aeroplanes

The first 16 (or 15) parameters satisfy the requirements for a Type II and Type IIA FDR.
The first 32 parameters satisfy the requirements for a Type I FDR.
The total 78 parameters satisfy the requirements for a Type IA FDR.

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
1	Time (UTC when available, otherwise relative time count or GNSS sync)		24 hours	4	±0.125%/h	1 s
2	Pressure altitude		-300 m (-1 000 ft) to maximum certificated altitude of aircraft +1 500 m (+5 000 ft)	1	±30 m to ±200 m (±100 ft to ±700 ft)	1.5 m (5 ft)
3	Indicated airspeed or calibrated airspeed		95 km/h (50 kt) to max V_{So} (*Note 1*) V_{So} to 1.2 V_D (*Note 2*)	1	±5% ±3%	1 kt (0.5 kt recommended)
4	Heading (primary flight crew reference)		360°	1	±2°	0.5°
5	Normal acceleration (*Note 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	-3 g to +6 g	0.125	±1% of maximum range excluding datum error of ±5%	0.004 g
		Application for type certification submitted to a Contracting State on or after 01 January 2016	-3 g to +6 g	0.0625	±1% of maximum range excluding datum error of ±5%	0.004 g
6	Pitch attitude		±75° or usable range, whichever is greater	0.25	±2°	0.5°
7	Roll attitude		±180°	0.25	±2°	0.5°
8	Radio transmission keying		On-off (one discrete)	1		
9	Power on each engine (*Note 3*)		Full range	1 (per engine)	±2%	0.2% of full range or the resolution required to operate the aircraft

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
10*	Trailing edge flap and flight deck control selection		Full range or each discrete position	2	±5% or as pilot's indicator	0.5% of full range or the resolution required to operate the aircraft
11*	Leading edge flap and flight deck control selection		Full range or each discrete position	2	±5% or as pilot's indicator	0.5% of full range or the resolution required to operate the aircraft
12*	Thrust reverser position		Stowed, in transit, and reverse	1 (per engine)		
13*	Ground spoiler/speed brake selection (selection and position)		Full range or each discrete position	1	±2% unless higher accuracy uniquely required	0.2% of full range
14	Outside air temperature		Sensor range	2	±2˚C	0.3˚C
15*	Autopilot/autothrottle/ AFCS mode and engagement status		A suitable combination of discretes	1		
16	Longitudinal acceleration (*Note 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	±1 g	0.25	±0.015 g excluding a datum error of ±0.05 g	0.004 g
		Application for type certification submitted to a Contracting State on or after 01 January 2016	±1 g	0.0625	±0.015 g excluding a datum error of ±0.05 g	0.004 g
17	Lateral acceleration (*Note 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	±1 g	0.25	±0.015 g excluding a datum error of ±0.05 g	0.004 g
		Application for type certification submitted to a Contracting State on or after 01 January 2016	±1 g	0.0625	±0.015 g excluding a datum error of ±0.05 g	0.004 g
18	Pilot input and/or control surface position-primary controls (pitch, roll, yaw) (*Notes 4 and 8*)	Application for type certification submitted to a Contracting State before 01 January 2016	Full range	0.25	±2° unless higher accuracy uniquely required	0.2% of full range or as installed

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
		Application for type certification submitted to a Contracting State on or after 01 January 2016	Full range	0.125	±2° unless higher accuracy uniquely required	0.2% of full range or as installed
19	Pitch trim position		Full range	1	±3% unless higher accuracy uniquely required	0.3% of full range or as installed
20*	Radio altitude		-6 m to 750 m (–20 ft to 2 500 ft)	1	±0.6 m (±2 ft) or ±3% whichever is greater below 150 m (500 ft) and ±5% above 150 m (500 ft)	0.3 m (1 ft) below 150 m (500 ft); 0.3 m (1 ft) + 0.5% of full range above 150 m (500 ft)
21*	Vertical beam deviation (ILS/GNSS/GLS glide path, MLS elevation, IRNAV/IAN vertical deviation)		Signal range	1	±3%	0.3% of full range
22*	Horizontal beam deviation (ILS/GNSS/GLS localiser, MLS azimuth, IRNAV/IAN lateral deviation)		Signal range	1	±3%	0.3% of full range
23	Marker beacon passage		Discrete	1		
24	Master warning		Discrete	1		
25	Each NAV receiver frequency selection (*Note 5*)		Full range	4	As installed	
26*	DME 1 and 2 distance (includes Distance to runway threshold (GLS) and Distance to missed approach point (IRNAV/IAN) (*Notes 5 and 6*)		0 – 370 km (0 – 200 NM)	4	As installed	1 852 m (1 NM)
27	Air/ground status		Discrete	1		
28*	GPWS/TAWS/GCAS status (selection of terrain display mode including pop-up display status) and (terrain alerts, both cautions and warnings, and advisories) and (on/off switch position)		Discrete	1		

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
29*	Angle of attack		Full range	0.5	As installed	0.3% of full range
30*	Hydraulics, each system (low pressure)		Discrete	2		0.5% of full range
31*	Navigation data (latitude/longitude, ground speed, and drift angle) (*Note 7*)		As installed	1	As installed	
32*	Landing gear and gear selector position		Discrete	4	As installed	
33*	Groundspeed		As installed	1	Data shall be obtained from the most accurate system	1 kt
34	Brakes (left and right brake pressure, left and right brake pedal position)		(Maximum metered brake range, discretes or full range)	1	±5%	2% of full range
35*	Additional engine parameters (EPR, N_1, indicated vibration level, N_2, EGT, fuel flow, fuel cut-off lever position, N_3, engine fuel metering valve position)	Engine fuel metering valve position: Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	Each engine each second	As installed	2% of full range
36*	TCAS/ACAS (traffic alert and collision avoidance system)		Discretes	1	As installed	
37*	Wind shear warning		Discrete	1	As installed	
38*	Selected barometric setting (pilot, co-pilot)		As installed	64	As installed	0.1 mb (0.01 in-Hg)
39*	Selected altitude (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
40*	Selected speed (all pilot selectable modes of operations)		As installed	1	As installed	Sufficient to determine crew selection
41*	Selected Mach (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
42*	Selected vertical speed (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
43*	Selected heading (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
44*	Selected flight path (all pilot selectable modes of operation) (course/DSTRK, path angle, final approach path (IRNAV/IAN))			1	As installed	
45*	Selected DH		As installed	64	As installed	Sufficient to determine crew selection
46*	EFIS display format (pilot, co-pilot)		Discrete(s)	4	As installed	
47*	Multi-function/engine/alerts display format		Discrete(s)	4	As installed	
48*	AC electrical bus status		Discrete(s)	4	As installed	
49*	DC electrical bus status		Discrete(s)	4	As installed	
50*	Engine bleed valve position		Discrete(s)	4	As installed	
51*	APU bleed valve position		Discrete(s)	4	As installed	
52*	Computer failure		Discrete(s)	4	As installed	
53*	Engine thrust command		As installed	2	As installed	
54*	Engine thrust target		As installed	4	As installed	2% of full range
55*	Computed CG		As installed	64	As installed	1% of full range
56*	Fuel quantity in CG trim tank		As installed	64	As installed	1% of full range
57*	HUD in use		As installed	4	As installed	
58*	Paravisual display on/off		As installed	1	As installed	
59*	Operational stall protection, stick shaker, and pusher activation		As installed	1	As installed	
60*	Primary navigation system reference (GNSS, INS, VOR/DME, MLS, LORAN C, localiser glideslope)		As installed	4	As installed	
61*	Ice detection		As installed	4	As installed	
62*	Engine warning each engine vibration		As installed	1	As installed	
63*	Engine warning each engine over temperature		As installed	1	As installed	
64*	Engine warning each engine oil pressure low		As installed	1	As installed	
65*	Engine warning each engine over speed		As installed	1	As installed	

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
66*	Yaw trim surface position		Full range	2	±3% unless higher accuracy uniquely required	0.3% of full range
67*	Roll trim surface position		Full range	2	±3% unless higher accuracy uniquely required	0.3% of full range
68*	Yaw or sideslip angle		Full range	1	±5%	0.5°
69*	De-icing and/or anti-icing systems selection		Discrete(s)	4		
70*	Hydraulic pressure (each system)		Full range	2	±5%	100 psi
71*	Loss of cabin pressure		Discrete	1		
72*	Flight deck trim control input position, Pitch		Full range	1	±5%	0.2% of full range or as installed
73*	Flight deck trim control input position, Roll		Full range	1	±5%	0.2% of full range or as installed
74*	Flight deck trim control input position, Yaw		Full range	1	±5%	0.2% of full range or as installed
75*	All flight deck flight control input forces (control wheel, control column, rudder pedal)		Full range (±311 N (±70 lbf), ±378 N (±85 lbf), ±734 N (±165 lbf))	1	±5%	0.2% of full range or as installed
76*	Event marker		Discrete	1		
77*	Date		365 days	64		
78*	ANP or EPE or EPU		As installed	4	As installed	
79*	Cabin pressure altitude	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed (0 m (0 ft) to 12 192 m (40 000 ft) recommended)	1	As installed	31 m (100 ft)
80*	Aeroplane computed weight	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	64	As installed	1% of full range
81*	Flight director command	Application for type certification submitted to a Contracting State on or after 01 January 2023	Full range	1	± 2°	0.5°

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
82*	Vertical speed	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	0.25	As installed (32 ft/min recommended)	16 ft/min

Note 1: V_{So} stalling speed or minimum steady flight speed in the landing configuration.

Note 2: V_D design diving speed.

Note 3: Record sufficient inputs to determine power.

Note 4: For aeroplanes with control systems in which movement of a control surface will back drive the pilot's control, ''or'' applies. For aeroplanes with control systems in which movement of a control surface will not back drive the pilot's control, "and'' applies. In aeroplanes with split surfaces, a suitable combination of inputs is acceptable in lieu of recording each surface separately. In aeroplanes with independent pilot input on primary controls, each pilot input on primary controls needs to be recorded separately.

Note 5: If signal available in digital form.

Note 6: Recording of latitude and longitude from INS or other navigation system is a preferred alternative.

Note 7: If signals readily available.

Note 8: It is not intended that aeroplanes issued with an individual certificate of airworthiness before 01 January 2016 be modified to meet the measurement range, maximum sampling and recording interval, accuracy limits, or recording resolution description detailed in IS 7.8.2.1(A).

IS 7.8.2.1(B) FLIGHT DATA RECORDERS AND AIRCRAFT DATA RECORDING SYSTEMS: TYPES AND PARAMETERS – HELICOPTERS

(a) The parameters that satisfy the requirements for FDRs are listed in table 2. The number of parameters to be recorded shall depend on helicopter complexity. The parameters without an asterisk (*) are mandatory parameters that shall be recorded. The parameters designated by an asterisk (*) shall also be recorded if an information data source for an asterisked parameter is used by helicopter systems or the flight crew to operate the helicopter. However, other parameters may be substituted with due regard to the helicopter type and the characteristics of the recording equipment.

(b) The following parameters satisfy the requirements for flight path and speed:

(1) Pressure altitude

(2) Indicated airspeed

(3) Outside air temperature

(4) Heading

(5) Normal acceleration

(6) Lateral acceleration

(7) Longitudinal acceleration (body axis)

(8) Time or relative time count

(9) Navigation data*: drift angle, wind speed, wind direction, latitude/longitude

(10) Radio altitude*

(c) If further FDR recording capacity is available, recording of the following additional information shall be considered:

(1) Additional operational information from electronic displays, such as EFIS, ECAM, and EICAS; and

(2) Additional engine parameters (EPR, N_1, fuel flow, etc.).

(d) The parameters that satisfy the requirements for ADRS are listed in IS 7.8.2.2.

Table 2. Parameter Characteristics for Flight Data Recorders – Helicopters

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
1	Time (UTC when available, otherwise relative time count or GNSS time sync)		24 hours	4	±0.125%/h	1 s
2	Pressure altitude		-300 m (–1 000 ft) to maximum certificated altitude of aircraft +1 500 m (+5 000 ft)	1	±30 m to ±200 m (±100 ft to ±700 ft)	1.5 m (5 ft)
3	Indicated airspeed		As the installed pilot display measuring system	1	±3%	1 kt
4	Heading		360°	1	± 2˚	0.5˚
5	Normal acceleration		-3 g to +6 g	0.125	±0.09 g excluding a datum error of ±0.045 g	0.004 g
6	Pitch attitude		±75˚ or 100% of usable range, whichever is greater	0.5	± 2˚	0.5˚
7	Roll attitude		±180˚	0.5	±2˚	0.5˚
8	Radio transmission keying		On-off (one discrete)	1	---	---
9	Power on each engine		Full range	1 (per engine)	±2%	0.1% of full range
10	Main rotor					
	Main rotor speed		50% – 130%	0.51	±2%	0.3% of full range
	Rotor brake		Discrete		---	---
11	Pilot input and/or control surface position-primary controls (Collective pitch, longitudinal cyclic pitch, lateral cyclic pitch, tail rotor pedal)		Full range	0.5 (0.25 recommended)	±2% unless higher accuracy uniquely required	0.5% of operating range
12	Hydraulics, each system (low pressure and selection)		Discrete	1	---	---
13	Outside air temperature		Sensor range	2	±2˚C	0.3˚C
14*	Autopilot/autothrottle /AFCS mode and engagement status		A suitable combination of discretes	1	---	---
15*	Stability		Discrete	1	---	---

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
	augmentation system engagement					
16*	Main gearbox oil pressure		As installed	1	As installed	6.895 kN/m^2 (1 psi)
17*	Main gearbox oil temperature		As installed	2	As installed	1˚C
18	Yaw acceleration (or yaw rate)		±400˚/second	0.25	±1.5% max range excluding datum error of ±5%	±2˚/s
19*	Sling load force		0 to 200% of certified load	0.5	±3% of max range	0.5% for maximum certified load
20	Longitudinal acceleration		±1 g	0.25	±0.015 g excluding datum error of ± 0.05 g	0.0004 g
21	Lateral acceleration		±1 g	0.25	±0.015 g excluding datum error of ± 0.05 g	0.0004 g
22*	Radio altitude		-6 m to 750 m (–20 ft to 2 500 ft)	1	±0.6 m (±2 ft) or ±3% whichever is greater below 150 m (500 ft) and ±5% above 150 m (500 ft)	0.3 m (1ft) below 150 m (500 ft), 0.3 m (1 ft) + 0.5% of full range above 150 m (500 ft)
23*	Vertical beam deviation		Signal range	1	±3%	0.3% of full range
24*	Horizontal beam deviation		Signal range	1	±3%	0.3% of full range
25	Marker beacon passage		Discrete	1	---	---
26	Warnings		Discrete(s)	1	---	---
27	Each navigation receiver frequency selection		Sufficient to determine selected frequency	4	As installed	----
28*	DME 1 and 2 distance		0 – 370 km (0 – 200 NM)	4	As installed	1 852 m (1 NM)
29*	Navigation data (latitude/longitude, ground speed, drift angle, wind speed, wind direction)		As installed	2	As installed	As installed
30*	Landing gear or gear selector position		Discrete	4	---	---

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
31*	Engine exhaust gas temperature (T_4)		As installed	1	As installed	
32*	Turbine inlet temperature (TIT/ITT)		As installed	1	As installed	
33*	Fuel contents		As installed	4	As installed	
34*	Altitude rate		As installed	1	As installed	
35*	Ice detection		As installed	4	As installed	
36*	Helicopter health and usage monitor system		As installed	——	As installed	
37	Engine control modes		Discrete	1	-----	-----
38*	Selected barometric setting (pilot and co-pilot)		As installed	64	As installed	0.1 mb (0.01 in Hg)
39*	Selected altitude (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
40*	Selected speed (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
41*	Selected Mach (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
42*	Selected vertical speed (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
43*	Selected heading (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
44*	Selected flight path (all pilot selectable modes of operation)		As installed	1	As installed	Sufficient to determine crew selection
45*	Selected DH		As installed	4	As installed	Sufficient to determine crew selection
46*	EFIS display format (pilot and co-pilot)		Discrete(s)	4	---	---
47*	Multi-function/engine/alerts display format		Discrete(s)	4	---	---
48*	Event marker		Discrete	1	---	---

Serial Number	Parameter	Applicability	Measurement Range	Maximum Sampling and Recording Interval (seconds)	Accuracy Limits (sensor input compared to FDR read-out)	Recording Resolution
49*	GPWS/TAWS/ GCAS status (selection of terrain display mode including pop-up display status) and (terrain alerts, both cautions and warnings, and advisories) and (on/off switch position) and (operational status)	Application for type certification submitted to a Contracting State on or after 01 January 2023	Discrete(s)	1	As installed	
50*	TCAS/ACAS (traffic alert and collision avoidance system) and (operational status)	Application for type certification submitted to a Contracting State on or after 01 January 2023	Discrete(s)	1	As installed	
51*	Primary flight controls – pilot input forces	Application for type certification submitted to a Contracting State on or after 01 January 2023	Full range	0.125 (0.0625 recommended)	± 3% unless higher accuracy is uniquely required	0.5% of operating range
52*	Computed centre of gravity	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	64	As installed	1% of full range
53*	Helicopter computed weight	Application for type certification submitted to a Contracting State on or after 01 January 2023	As installed	64	As installed	1% of full range

IS 7.8.2.2 AIRCRAFT EQUIPAGE FOR OPERATION – AIRCRAFT DATA RECORDING SYSTEM

(a) ADRS shall be capable of recording, as appropriate to the aircraft, at least the essential (E) parameters listed in table 3.

(b) The measurement range, recording interval, and accuracy of parameters on installed equipment is usually verified by methods approved by the Authority.

(c) Documentation concerning parameter allocation, conversion equations, periodic calibration, and other serviceability/maintenance information shall be maintained by the operator. The documentation shall be sufficient to ensure that accident investigation authorities have the necessary information to read out the data in engineering units.

Table 3. Parameter Characteristics for Aircraft Data Recording Systems

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
1	(a) Heading (Magnetic or True)	±180˚	1	±2˚	0.5˚	Heading is preferred; if not available, yaw rate shall be recorded
	(b) Yaw rate	±300˚/s	0.25	±1% + drift of 360˚/h	2˚/s	
2	(a) Pitch attitude	±90˚	0.25	±2˚	0.5˚	Pitch attitude is preferred; if not available, pitch rate shall be recorded
	(b) Pitch rate	±300˚/s	0.25	±1% + drift of 360˚/h	2˚/s	
3	(a) Roll attitude	±180˚	0.25	±2˚	0.5˚	Roll attitude is preferred; if not available, roll rate shall be recorded
	(b) Roll rate	±300˚/s	0.25	±1% + drift of 360˚/h	2˚/s	
4	Positioning system:					
	(a) Time	24 hours	1	±0.5 s	0.1 s	UTC time preferred where available
	(b) Latitude/ longitude	Latitude: ±90˚ Longitude: ±180˚	2 (1 if available)	As installed (0.00015˚ recommended)	0.00005˚	--
	(c) Altitude	-300 m (-1 000 ft) to maximum certificated altitude of aeroplane +1 500 m (5 000 ft)	2 (1 if available)	As installed (±15 m (±50 ft) recommended)	1.5 m (5 ft)	--
	(d) Ground speed	0 – 1 000 kt	2 (1 if available)	As installed (±5 kt recommended)	1 kt	
	(e) Track	0 – 360˚	2 (1 if available)	As installed (±2˚ recommended)	0.5˚	
	(f) Estimated error	Available range	2 (1 if available)	As installed	As installed	Shall be recorded if readily available

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
5	Normal acceleration	-3 g to + 6 g (*)	0.25 (0.125 if available)	As installed (±0.09 g excluding a datum error of ±45 g recommended)	0.004 g	--
6	Longitudinal acceleration	±1 g (*)	0.25 (0.125 if available)	As installed (±0.015 g excluding a datum error of ±0.05 g recommended)	0.004 g	--
7	Lateral acceleration	±1 g (*)	0.25 (0.125 if available)	As installed (±0.015 g excluding a datum error of ±0.05 g recommended)	0.004 g	--
8	External static pressure (or pressure altitude)	34.4 mb (3.44 in-Hg) to 310.2 mb (31.02 in-Hg) or available sensor range	1	As installed (±1 mb (0.1 in-Hg) or ±30 m (±100 ft) to ±210 m (±700 ft) recommended)	0.1 mb (0.01 in-Hg) or 1.5 m (5 ft)	--
9	Outside air temperature (or total air temperature)	-50 to +90˚C or available sensor range	2	As installed (±2˚C recommended)	1˚C	--
10	Indicated air speed	As the installed pilot display measuring system or available sensor range	1	As installed (±3% recommended)	1 kt (0.5 kt recommended)	--
11	Engine RPM	Full range including overspeed condition	Each engine each second	As installed	0.2% of full range	--
12	Engine oil pressure	Full range	Each engine each second	As installed (5% of full range recommended)	2% of full range	--
13	Engine oil temperature	Full range	Each engine each second	As installed (5% of full range recommended)	2% of full range	--

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
14	Fuel flow or pressure	Full range	Each engine each second	As installed	2% of full range	--
15	Manifold pressure	Full range	Each engine each second	As installed	0.2% of full range	--
16	Engine thrust/ power/ torque parameters required to determine propulsive thrust/power*	Full range	Each engine each second	As installed	0.1% of full range	*Sufficient parameters (e.g., EPRN/N1 or torque/Np as appropriate to the particular engine shall be recorded to determine power in both normal and reverse thrust. A margin for possible overspeed shall be provided)
17	Engine gas generator speed (Ng)	0 – 150%	Each engine each second	As installed	0.2% of full range	--
18	Free power turbine speed (Nf)	0 – 150%	Each engine each second	As installed	0.2% of full range	--
19	Coolant temperature	Full range	1	As installed (±5˚C recommended)	1˚C	--
20	Main voltage	Full range	Each engine each second	As installed	1 Volt	--
21	Cylinder head temperature	Full range	Each cylinder each second	As installed	2% of full range	--
22	Flaps position	Full range or each discrete position	2	As installed	0.5˚	--
23	Primary flight control surface position	Full range	0.25	As installed	0.2% of full range	--
24	Fuel quantity	Full range	4	As installed	1% of full range	--
25	Exhaust gas temperature	Full range	Each engine each second	As installed	2% of full range	--

No.	Parameter Name	Minimum Recording Range	Maximum Recording Interval in Seconds	Minimum Recording Accuracy	Minimum Recording Resolution	Remarks
26	Emergency voltage	Full range	Each engine each second	As installed	1 Volt	--
27	Trim surface position	Full range or each discrete position	1	As installed	0.3% of full range	--
28	Landing gear position	Each discrete position*	Each gear every 2 seconds	As installed	--	*Where available, record up-and-locked and down-and-locked position
29	Novel/unique aircraft features	As required	As required	As required	As required	--

IS 7.8.4.1 DATA LINK RECORDER APPLICABILITY

(a) Messages applying to the applications listed in table 4 shall be recorded. Applications without the asterisk (*) are mandatory applications that shall be recorded regardless of the system complexity. Applications with an (*) shall be recorded only as far as is practicable given the architecture of the system.

(b) Descriptions of the applications for DLRs are contained in the table 4.

Table 4. Description of Applications for Data Link Recorders

Item No.	Application Type	Application Description	Recording Content
1	Data link initiation	This includes any applications used to log on to or initiate data link service. In FANS-1/A and ATN, these are ATS facilities notification (AFN) and context management (CM), respectively	C
2	Controller/pilot communication	This includes any application used to exchange requests, clearances, instructions, and reports between the flight crew and controllers on the ground. In FANS-1/A and ATN, this includes the CPDLC application. It also includes applications used for the exchange of oceanic (OCL) and departure clearances (DCL) as well as data link delivery of taxi clearances	C
3	Addressed surveillance	This includes any surveillance application in which the ground sets up contracts for delivery of surveillance data. In FANS-1/A and ATN, this includes the automatic dependent surveillance – contract (ADS-C) application. Where parametric data are reported within the message they shall be recorded within the message, they shall be recorded unless data from the same source are recorded on the FDR	C
4	Flight information	This includes any service used for delivery of flight information to specific aircraft. This includes, for example, data link aviation weather report service (D-METAR), data link automatic terminal service (D-ATIS),	C

Item No.	Application Type	Application Description	Recording Content
		digital Notice to Airmen (D-NOTAM) and other textual data link services	
5	Aircraft broadcast surveillance	This includes elementary and enhanced surveillance systems, as well as ADS-B output data. Where parametric data sent by the aircraft are reported within the message, they shall be recorded unless data from the same sources are recorded on the FDR	M*
6	Aeronautical operational control data	This includes any application transmitting or receiving data used for aeronautical operational control purposes	M*

Key:

C Complete contents recorded.

M Information that enables correlation to any associated records stored separately from the aircraft.

** Applications to be recorded only as far as is practicable given the architecture of the system.*

(c) DLC recording installation clarification is contained in table 5.

Table 5. Data Link Communications (DLC) Recording Installation Clarification

Rows	Date individual certificate of airworthiness was first issued	Date aircraft TC issued or modification for DLC equipment first approved	Date of activation for use of DLC equipment	DLC recording required	SARPs reference
1	On or after 01 January 2016	On or after 01 January 2016	On or after 01 January 2016	Yes	6.3.3.1.1
2	On or after 01 January 2016	Before 01 January 2016	On or after 01 January 2016	Yes	6.3.3.1.1
3	Before 01 January 2016	On or after 01 January 2016	On or after 01 January 2016	Yes	6.3.3.1.2
4	Before 01 January 2016	Before 01 January 2016	Before 01 January 2016	No	6.3.3.1.2
5	Before 01 January 2016	Before 01 January 2016	On or after 01 January 2016	No[1]	6.3.3.1.2 6.3.3.1.3

[1] Not required, but recommended

ICAO Annex 6 Part I: Attachment L

Notes:

1. *Date individual certificate of airworthiness was first issued* is self-explanatory.
2. *Date aircraft TC issued or modification for DLC equipment first approved* is the date that allows the installation of DLC equipment on the aircraft and refers to the airworthiness approval of the installation of aircraft components such as the structural and wiring provisions with which the DLC equipment needs to be compliant. These airworthiness approvals are usually in a form of a TC, a supplemental TC, or an amended TC. It is not uncommon for original customers of an aircraft that have airworthiness approvals related to DLC capability, to choose not to install the DLC equipment or choose not to have it activated even if the aircraft is prepared for it.
3. *Date of activation for use of DLC equipment* refers to the date that a DLC application referred to in paragraph 7.8.4.1(d) of this part was first activated for use.
   - DLC equipment as used in these provisions, refer to the physical unit(s) (e.g., box(es)) that was

approved to a minimum performance standard issued by a certification authority (e.g., TSO or ETSO).

- The activation of DLC functions refers to approved software activation of DLC functions or software updates.

4. *DLC recording required* refers to the requirement to record DLC messages in accordance with provisions of paragraphs 7.8.4.1(a), 7.8.4.1(b), and 7.8.4.1(d) of this part.

(d) GENERAL.

(1) It is the date on which the CVR capabilities of the aircraft were approved that determines the DLC recording requirement. The date in which the DLC equipment was approved to a minimum performance standard is not relevant for CVR recording requirement purposes.

(2) For the DLC equipment to be compliant with an airworthiness approval, it needs to be able to use, without modification, the installed aircraft components that are necessary to provide the DLC function such as the:

(i) Datalink router (e.g., hosted in the communications management unit), and

(ii) Radios (e.g., VHF, HF datalink, Satcom) and related antennas.

(3) Approved software updates to installed equipment or software activation of functions normally do not alter the DLC equipment compliance with the rest of the aircraft systems.

(e) EXAMPLES.

(1) For rows 1 and 2: The recording requirement is driven by paragraph 7.8.4.1(a) of this part, which is based on when the individual certificate of airworthiness was first issued. Any subsequent airworthiness modifications related to DLC capability do not exempt the aircraft from the requirement to record DLC messages.

(2) For rows 3 to 5 — General:

(i) The recording requirement is driven by paragraph 7.8.4.1(b) of this part and is based on whether or not the aircraft has an airworthiness approval for DLC capabilities and the date of its issue.

(ii) Since there was no requirement to record DLC messages prior to 01 January 2016, airworthiness approvals related to DLC capability issued before that date did not necessarily include this function.

(3) For row 3: The recording requirement applies regardless of when the certificate of airworthiness was issued, because an airworthiness approval related to DLC capability was issued on or after 01 January 2016. The date of installation of the equipment would typically be after the airworthiness approval.

(4) For row 4: The recording requirement does not apply because the aircraft's certificate of airworthiness and an airworthiness approval related to DLC capability was issued before 01 January 2016. The date of installation of DLC equipment is not a factor for DLC message recording requirements as long as the equipment is compliant with that airworthiness approval.

(5) For row 5:

(i) The recording requirement does not apply because the aircraft's certificate of airworthiness and an airworthiness approval related to DLC capability was issued before 01 January 2016. The date of installation of DLC equipment is not a factor for DLC message recording requirements as long as the equipment is compliant with that airworthiness approval.

(ii) Notwithstanding the above, if the activation for use of the DLC equipment is on or after 01 January 2016, DLC messages shall be recorded in accordance with paragraph 7.8.4.1(d) of this part.

IS 7.9.1.2 EMERGENCY EXIT EQUIPMENT – PASSENGERS

(a) The emergency exit equipment for aeroplanes in paragraph 7.9.1.2(a) of this part shall meet the following requirements.

(b) The assisting means for a floor-level emergency exit shall meet the requirements under which the aeroplane was type certified.

(c) The location of each passenger emergency exit shall be:

(1) Recognisable from a distance equal to the width of the cabin; and

(2) Indicated by a sign visible to occupants approaching along the main passenger aisle.

(d) There shall be an emergency exit locating sign:

(1) Above the aisle near each over-the-wing passenger emergency exit, or at another ceiling location if it is more practical because of low headroom;

(2) Next to each floor-level passenger emergency exit, except that one sign may serve two such exits if they both can be seen readily from that sign; and

(3) On each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible, the sign may be placed at another appropriate location.

(e) Each passenger emergency exit marking and each locating sign shall be manufactured to meet the interior emergency exit marking requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

Note: No sign may continue to be used if its luminescence (brightness) decreases to below 250 micro lamberts.

(f) Sources of general cabin illumination may be common to both the emergency and the main lighting systems if the power supply to the emergency light system is independent of the power supply to the main lighting system.

(1) The emergency lighting system shall provide enough general lighting in the passenger cabin so that the average illumination, when measured at 40-inch intervals at seat armrest height, on the centerline of the main passenger aisle, is at least 0.05 foot-candles.

(2) Each emergency light shall:

(i) Be operable manually both from the flight crew station and from a point in the passenger compartment that is readily accessible to a normal cabin crew member seat;

(ii) Have a means to prevent inadvertent operation of the manual controls;

(iii) When armed or turned on at either station, remain lighted or become lighted upon interruption of the aeroplane's normal electric power;

(iv) Provide the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing; and

(v) Have a flight deck control device that has “on,” “off,” and “armed” positions.

(3) The location of each passenger emergency exit operating handle and instructions for opening the exit shall be shown in accordance with the requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

(4) No operating handle or operating handle cover may continue to be used if its luminescence (brightness) decreases to below 100 micro lamberts.

(5) Access to emergency exits shall be provided as follows for each passenger-carrying aeroplane:

(i) Each passageway between individual passenger areas, or leading to a Type I or Type II emergency exit, shall be unobstructed and at least 20 inches wide;

(ii) There shall be enough space next to each Type I or Type II emergency exit to allow a crew member to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required in paragraph(a)(4)(i) of this IS; and

(iii) There shall be access from the main aisle to each Type III and Type IV exit. The access from the aisle to these exits shall not be obstructed by seats, berths, or other protrusions in a manner that would reduce the effectiveness of the exit. In addition, the access shall meet the emergency exit access requirements under which the aeroplane was type certificated, unless the Authority cites different requirements for compliance with this paragraph.

(6) If it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway shall not be obstructed. However, curtains may be used if they allow free entry through the passageway.

(7) No door may be installed in any partition between passenger compartments.

(8) If it is necessary to pass through a doorway separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door shall have a means to latch it in open position, and the door shall be latched open during each take-off and landing. The latching means shall be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, prescribed in the airworthiness standards for type certification in the transport category as cited by the Authority.

(9) Each passenger emergency exit and the means of opening that exit from the outside shall be marked on the outside of the aeroplane with a 5-cm (2-in) coloured band outlining the exit on the side of the fuselage.

(10) Each passenger emergency exit marking, including the band, shall be readily distinguishable from the surrounding fuselage area by contrast in colour and shall comply with the following:

(i) If the reflectance of the darker colour is 15 per cent or less, the reflectance of the lighter colour shall be at least 45 per cent; and

(ii) If the reflectance of the darker colour is greater than 15 per cent, at least a 30 per cent difference between its reflectance and the reflectance of the lighter colour shall be provided.

Note: "Reflectance" is the ratio of the luminous flux reflected by a body to the luminous flux it receives.

(11) Exits that are not in the side of the fuselage shall have external means of opening and applicable instructions marked conspicuously in red or, if red is inconspicuous against the background colour, in bright chrome yellow and, when the opening means for such an exit is located on only one side of the fuselage, a conspicuous marking to that effect shall be provided on the other side.

(12) Each passenger-carrying aeroplane shall be equipped with exterior lighting that meets the requirements under which that aeroplane was type certificated, unless the Authority cites different requirement for compliance with this paragraph.

(13) Each passenger-carrying aeroplane shall be equipped with a slip-resistant escape route that meets the requirements under which that aeroplane was type certificated, unless the Authority cites different requirements for compliance with this paragraph.

(14) Each floor-level door or exit in the side of the fuselage (other than those leading into a cargo or baggage compartment that is not accessible from the passenger cabin) that is 112 cm (44 in) or more high and 51 cm (20 in) or more wide, but not wider than 117 cm (46 in), each passenger ventral exit, and each tail cone exit shall meet the requirements of this section for floor-level emergency exits.

Note: The Authority may grant a deviation from this paragraph if it finds that circumstances make full compliance impractical and that an acceptable level of safety has been achieved.

(15) Approved emergency exits in the passenger compartments that are in excess of the minimum number of required emergency exits shall meet all the applicable provisions of this IS and shall be readily accessible.

(16) The ventral exit and tail cone exit on each passenger-carrying aeroplane with a certificated take-off mass of 5 700 kg (12 500 lbs) or more shall be:

(i) Designed and constructed so that it cannot be opened during flight; and

(ii) Marked with a placard readable from a distance of 76 cm (30 in) and installed at a conspicuous location near the means of opening the exit, stating that the exit has been designed and constructed so that it cannot be opened during flight.

(17) PORTABLE LIGHTS. No person may operate a passenger-carrying aeroplane unless the aeroplane is equipped with independent portable light stowage provisions accessible from each cabin crew member seat.

IS 7.9.1.11 FIRST AID KITS AND UNIVERSAL PRECAUTION KITS

(a) The required first aid kits shall include at least the following:

(1) List of contents

(2) Antiseptic swabs (10/pack)

(3) Bandage: adhesive strips

(4) Bandage: gauze 7.5 cm × 4.5 m

(5) Bandage: triangular; safety pins

(6) Dressing: burn 10 cm × 10 cm

(7) Dressing: compress, sterile 7.5 cm × 12 cm

(8) Dressing: gauze, sterile 10.4 cm × 10.4 cm

(9) Tape: adhesive 2.5 cm (roll)

(10) Steri-strips (or equivalent adhesive strip)

(11) Hand cleanser or cleansing towelettes

(12) Pad with shield, or tape, for eye

(13) Scissors: 10 cm [as allowed by national regulations]

(14) Tape: Adhesive, surgical 1.2 cm × 4.6 m

(15) Tweezers: splinter

(16) Disposable gloves (multiple pairs)

(17) Thermometers (non-mercury)

(18) Mouth-to-mouth resuscitation mask with one-way valve

(19) First aid manual, current edition

(20) Incident record form

(21) Mild to moderate analgesic [as allowed by national regulations]

(22) Antiemetic [as allowed by national regulations]

(23) Nasal decongestant [as allowed by national regulations]

(24) Antacid [as allowed by national regulations]

(25) Antihistamine [as allowed by national regulations]

(b) The required universal precaution kits shall include at least the following:

(1) Dry powder that can convert a small liquid spill into a sterile granulated gel

(2) Germicidal disinfectant for surface cleaning

(3) Skin wipes

(4) Face/eye mask (separate or combined)

(5) Gloves (disposable)

(6) Protective apron

(7) Large absorbent towel

(8) Pick-up scoop with scraper

(9) Bio-hazard disposal waste bag

(10) Instructions

Note: The carriage of AEDs will be determined by operators or the Authority on the basis of a risk assessment, taking into account the particular needs of the operation.

IS 7.9.1.12 EMERGENCY MEDICAL KIT – AEROPLANES

(a) [AOC] The required emergency medical kit shall include the following equipment:

(1) List of contents
(2) Stethoscope
(3) Sphygmomanometer (electronic preferred)
(4) Airways, oropharyngeal (three sizes)
(5) Syringes (appropriate range of sizes)
(6) Needles (appropriate range of sizes)
(7) Intravenous catheters (appropriate range of sizes)
(8) Antiseptic wipes
(9) Gloves (disposable)
(10) Needle disposal box
(11) Urinary catheter
(12) System for delivering intravenous fluids
(13) Venous tourniquet
(14) Sponge gauze
(15) Tape – adhesive
(16) Surgical mask
(17) Emergency tracheal catheter (or large gauge intravenous cannula)
(18) Umbilical cord clamp
(19) Thermometers (non-mercury)
(20) Basic life support cards
(21) Bag-valve mask
(22) Flashlight and batteries

Note: If a cardiac monitor is available (with or without an AED), add to the above list.

(b) [AOC] The required emergency medical kit shall include the following medication:

(1) Epinephrine 1:1 000
(2) Antihistamine – injectable
(3) Dextrose 50% (or equivalent) – injectable: 50 ml
(4) Nitroglycerin tablets, or spray
(5) Major analgesic
(6) Sedative anticonvulsant – injectable
(7) Antiemetic – injectable
(8) Bronchial dilator – inhaler
(9) Atropine – injectable
(10) Adrenocortical steroid – injectable

(11) Diuretic – injectable

(12) Medication for postpartum bleeding

(13) Sodium chloride 0.9% (minimum 250 ml)

(14) Acetyl salicylic acid (aspirin) for oral use

(15) Oral beta blocker

Note 1: Epinephrine 1:10 000 (can be a dilution of epinephrine 1:1 000).

Note 2: The United Nations Conference for the Adoption of a Single Convention on Narcotic Drugs in March 1961 adopted such a Convention, Article 32 of which contains special provisions concerning the carriage of drugs in medical kits of aircraft engaged in international flight.

IS 7.9.1.13 OXYGEN STORAGE AND DISPENSING APPARATUS

(a) The supplemental oxygen supply requirements for non-pressurised aeroplanes are as follows:

(1) An operator shall not operate a non-pressurised aeroplane at pressure altitudes above 3 000 m (10 000 ft) unless supplemental oxygen equipment, capable of storing and dispensing the oxygen supplies required, is provided.

(2) The amount of supplemental oxygen for sustenance required for a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures, established for each operation in the OM and with the routes to be flown, and with the emergency procedures specified in the OM.

(3) An aeroplane intended to be operated above 3 000 m (10 000 ft) pressure altitude shall be provided with equipment capable of storing and dispensing the oxygen supplies required.

(4) OXYGEN SUPPLY REQUIREMENTS.

(5) FLIGHT CREW MEMBERS. Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with table 5. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply, then they shall be considered as flight crew members on flight deck duty for the purpose of oxygen supply.

(6) CABIN CREW MEMBERS, ADDITIONAL CREW MEMBERS, AND PASSENGERS. Cabin crew members and passengers shall be supplied with oxygen in accordance with table 5. Cabin crew members carried in addition to the minimum number of cabin crew members required, and additional crew members, shall be considered as passengers for the purpose of oxygen supply.

Table 5. Supplemental Oxygen for Non-Pressurised Aeroplanes

(a)	(b)
Supply for:	**Duration and Pressure Altitude**
1. All occupants of flight deck seats on flight deck duty	Entire flight time at pressure altitudes above 3 000 m (10 000 ft)
2. All required cabin crew members	Entire flight time at pressure altitudes above 4 000 m (13 000 ft) and for any period exceeding 30 minutes at pressure altitudes above 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)
3. 100% of passengers (*see Note*)	Entire flight time at pressure altitudes above 4 000 m (13 000 ft)
4. 10% of passengers (*see Note*)	Entire flight time after 30 minutes at pressure altitudes greater than 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)

Note: For the purpose of this table, "passengers" means passengers actually carried and includes infants.

(b) The supplemental oxygen supply requirements for pressurised aeroplanes are as follows:

(1) An operator shall not operate a pressurised aeroplane at pressure altitudes above 3 000 m (10 000 ft) unless supplemental oxygen equipment, capable of storing and dispensing the oxygen supplies required by this paragraph, is provided.

(2) The amount of supplemental oxygen required shall be determined on the basis of cabin pressure altitude, flight duration, and the assumption that a cabin pressurisation failure will occur at the altitude or point of flight that is most critical from the standpoint of oxygen need, and that, after the failure, the aeroplane will descend in accordance with emergency procedures specified in the AFM to a safe altitude for the route to be flown that will allow continued safe flight and landing.

(3) Following a cabin pressurisation failure, the cabin pressure altitude shall be considered the same as the aeroplane pressure altitude, unless it is demonstrated to the Authority that no probable failure of the cabin or pressurisation system will result in a cabin pressure altitude equal to the aeroplane pressure altitude. Under these circumstances, the demonstrated maximum cabin pressure altitude may be used as a basis for determination of oxygen supply.

(4) OXYGEN EQUIPMENT AND SUPPLY REQUIREMENTS.

(5) FLIGHT CREW MEMBERS.

(i) Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with table 6. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply, then they shall be considered as flight crew members on flight deck duty for the purpose of oxygen supply.

(ii) Flight deck seat occupants not supplied by the flight crew source are to be considered as passengers for the purpose of oxygen supply.

(iii) Oxygen masks shall be located so as to be within the immediate reach of flight crew members whilst at their assigned duty station.

(iv) Oxygen masks for use by flight crew members in pressurised aeroplanes operating at pressure altitudes above 7 600 m (25 000 ft) shall be a quick-donning type of mask.

(6) CABIN CREW MEMBERS, ADDITIONAL CREW MEMBERS, AND PASSENGERS.

(i) Cabin crew members and passengers shall be supplied with supplemental oxygen in accordance with table 6. Cabin crew members carried in addition to the minimum number of cabin crew members required, and additional crew members, shall be considered as passengers for the purpose of oxygen supply.

(ii) Aeroplanes intended to be operated at pressure altitudes above 7 600 m (25 000 ft) shall be provided sufficient spare outlets and masks and/or sufficient portable oxygen units with masks for use by all required cabin crew members. The spare outlets and/or portable oxygen units are to be distributed evenly throughout the cabin to ensure immediate availability of oxygen to each required cabin crew member regardless of the crew member's location at the time of cabin pressurisation failure.

(iii) Aeroplanes intended to be operated at pressure altitudes above 7 600 m (25 000 ft) shall be provided an oxygen dispensing unit connected to oxygen supply terminals immediately available to each occupant, wherever seated. The total number of dispensing units and outlets shall exceed the number of seats by at least 10 per cent. The extra units shall be evenly distributed throughout the cabin.

(iv) Aeroplanes intended to be operated at pressure altitudes above 7 600 m (25 000 ft) or which, if operated at or below 7 600 m (25 000 ft), cannot descend safely within 4 minutes to 4 000 m (13 000 ft), and for which the individual certificate of airworthiness was first issued on or after 09 November 1998, shall be provided with automatically deployable oxygen equipment immediately available to each occupant, wherever seated. The total number of dispensing units and outlets shall exceed the number of seats by at least 10 per cent. The extra units shall be evenly distributed throughout the cabin.

(v) The oxygen supply requirements, as specified in table 6, for aeroplanes not certificated to fly at altitudes above 7 600 m (25 000 ft), may be reduced to the entire flight time between 3 000 m (10 000 ft) and 4 000 m (13 000 ft) cabin pressure altitudes for all required cabin crew members and for at least 10 per cent of the passengers if, at all points along the route to be flown, the aeroplane is able to descend safely within 4 minutes to a cabin pressure altitude of 4 000 m (13 000 ft).

Table 6. Requirements for Supplemental Oxygen for Pressurised Aeroplanes

Supply for:	Duration and Cabin Pressure Altitude
1. All occupants of flight deck seats on flight deck duty	Entire flight time when the cabin pressure altitude exceeds 13 000 ft and entire time when the cabin pressure altitude exceeds 10 000 ft but does not exceed 13 000 ft after the first 30 minutes at those altitudes, but in no case less than: (i) 30 minutes for aeroplanes certificated to fly at altitudes not exceeding 25 000 ft (*Note 2*) (ii) 2 hours for aeroplanes certificated to fly at altitudes more than 25 000 ft (*Note 3*)
2. All required cabin crew members	Entire flight time when cabin pressure altitude exceeds 13 000 ft but not less than 30 minutes (*Note 2*), and entire flight time when cabin pressure altitude is greater than 10 000 ft but does not exceed 13 000 ft after the first 30 minutes at these altitudes
3. 100% of passengers	10 minutes or the entire flight time when the cabin pressure altitude exceeds 13 000 ft, whichever is greater (*Note 4*)
4. 10% of passengers	Entire flight time when the cabin pressure altitude exceeds 10 000 ft but does not exceed 13 000 ft after the first 30 minutes at these altitudes

Note 1: The supply provided shall take account of the cabin pressure altitude and descent profile for the routes concerned.

Note 2: The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certificated operating altitude to 3 000 m (10 000 ft) in 10 minutes and followed by 20 minutes at 3 000 m (10 000 ft).

Note 3: The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certificated operating altitude to 3 000 m (10 000 ft) in 10 minutes and followed by 110 minutes at 3 000 m (10 000 ft). The oxygen required to meet the crew protective breathing equipment provisions of this part may be included in determining the supply required.

Note 4: The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certificated operating altitude to 15 000 ft.

Note 5: For the purpose of this table, "passengers" means passengers actually carried and includes infants.

(c) The supplemental oxygen supply requirements for non-pressurised helicopters are as follows:

(1) An operator shall not operate a non-pressurised helicopter at pressure altitudes above 3 000 m (10 000 ft) unless supplemental oxygen equipment, capable of storing and dispensing the oxygen supplies required, is provided.

(2) The amount of supplemental oxygen for sustenance required for a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures, established for each operation in the OM and with the routes to be flown, and with the emergency procedures specified in the OM.

(3) A helicopter intended to be operated above 3 000 m (10 000 ft) pressure altitude shall be provided with equipment capable of storing and dispensing the oxygen supplies required.

(d) OXYGEN SUPPLY REQUIREMENTS.

(e) FLIGHT CREW MEMBERS. Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with table 7. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply, then they shall be considered as flight crew members on flight deck duty for the purpose of oxygen supply.

(f) CABIN CREW MEMBERS, ADDITIONAL CREW MEMBERS, AND PASSENGERS. Cabin crew members and passengers shall be supplied with oxygen in accordance with table 7. Cabin crew members carried in addition to the minimum number of cabin crew members required, and additional crew members, shall be considered as passengers for the purpose of oxygen supply.

Table 7. Supplemental Oxygen for Non-Pressurised Helicopters

(a)	(b)
Supply for:	**Duration and Pressure Altitude**
1. All occupants of flight deck seats on flight deck duty	Entire flight time at pressure altitudes above 3 000 m (10 000 ft)
2. All required cabin crew members	Entire flight time at pressure altitudes above 4 000 m (13 000 ft) and for any period exceeding 30 minutes at pressure altitudes above 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)
3. 100% of passengers (*see Note*)	Entire flight time at pressure altitudes above 4 000 m (13 000 ft)
4. 10% of passengers (*see Note*)	Entire flight time after 30 minutes at pressure altitudes greater than 3 000 m (10 000 ft) but not exceeding 4 000 m (13 000 ft)

Note: For the purpose of this table, "passengers" means passengers actually carried and includes infants.

IS 7.10.1.13 COSMIC RADIATION DETECTION EQUIPMENT

(a) Compliance with the sampling requirements in 7.10.1.13(a)(2) of this part shall be accomplished as follows:

(1) The sampling shall be carried out in conjunction with a radiological agency or similar organisation acceptable to the Authority.

(2) Sixteen route sectors that include flight above 15 000 m (49 000 ft) shall be sampled every quarter (3 months). Where less than 16 route sectors that include flight above 15 000 m (49 000 ft) are achieved each quarter, then all sectors above 15 000 m (49 000 ft) shall be sampled.

(3) The cosmic radiation recorded shall include both the neutron and non-neutron components of the radiation field.

(4) The results of the sampling, including a cumulative summary quarter on quarter, shall be reported to the Authority under arrangements acceptable to the Authority.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 8—OPERATIONS

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CCAR PART 8—OPERATIONS

8.1 GENERAL

8.1.1.1 APPLICABILITY

(a) Part 8 prescribes the requirements for:

(1) Operations conducted by a flight crew member certificated in Curaçao while operating aircraft registered in Curaçao;

(2) Operation of foreign aircraft registered in another State by Curaçao AOC holders; and

(3) Operation of aircraft within Curaçao by flight crew or AOC holders of another State.

(b) For operations outside of Curaçao, all pilots and operators certificated in Curaçao shall comply with these requirements unless compliance would result in a violation of the laws of the State in which the operation is conducted.

Note 1: Where a particular requirement is applicable only to a particular segment of aviation operations, it will be identified by a reference to those particular operations, such as “commercial air transport” or “small non-turbojet or turbofan aeroplanes.”

(1) Note 2: Those specific subsections not applicable to operators of other States will include the phrase “This requirement is not applicable to operators of other States.”

8.1.1.2 DEFINITIONS

(a) Definitions concerning the Subparts other than 8.12 are contained in Part 1.

(c) For the purposes of Subpart 8.12, the following definitions shall apply:

(1) **Augmented flight crew.** A flight crew which comprises more than the minimum number required for the operation of the aeroplane and in which each flight crew member can leave his/her post for the purpose of in-flight rest, and be replaced by another appropriately qualified flight crew member.

(2) **Block time.** The time between an aeroplane first moving from its parking place for the purpose of taking off until it comes to rest on the designated parking position and all engines or propellers are stopped.

(3) **Break.** means a period of time within a flight duty period, shorter than a rest period, counting as duty and during which a crew member is free of all tasks.

(4) **Duty.** Any task that a crew member is required to carry out associated with the business of an AOC holder.

(5) **Duty period.** A period which starts when a crew member is required by the operator to report for a duty and ends when the crew member is free from all duties, including post-flight duty.

(6) **Flight duty period.** A flight duty period (FDP) is any time during which a person operates in an aircraft as a member of its crew. The FDP starts when the crew member is required by

the operator to report for a flight or a series of flights; it finishes at the end of the last flight on which he/she is an operating crew member.

(7) **Home base.** The location nominated by the operator to the crew member from where the crew member normally starts and ends a duty period or a series of duty periods and where, under normal conditions, the operator is not responsible for the accommodation of the crew member concerned.

(8) **Local day.** A 24 hour period commencing at 00.00 local time.

(9) **Local night.** A period of eight hours falling between 22.00 and 08.00 local time.

(10) **A single day free of duty.** A single day free of duty shall include two local nights. A rest period may be included as part of the day off.

(11) **Operating crew member.** A crew member who carries out his/her duties in an aircraft during a flight or during any part of a flight.

(1) **Positioning.** The transferring of a non-operating crew member from place to place, at the behest of the operator, excluding travelling time. Travelling time is defined as: time from home to a designated reporting place and vice versa;

(12) time for local transfer from a place of rest to the commencement of duty and vice versa.

(13) **Reporting Time.** The time at which a crew member is required by the operator to report for any duty.

(14) **Rostered/Planned Duty.** A duty period, or series of duty periods, with stipulated start and finish times, notified by the company to crew in advance.

(15) **Rest period.** An uninterrupted and defined period of time during which a crew member is free from all duties and airport standby. A crew member shall not be disturbed during the minimum rest period required before reporting for a flight duty period.

(16) **Standby.** A defined period of time during which a crew member is required by the operator to be available to receive an assignment for a flight, positioning or other duty without an intervening rest period.

(17) **Suitable Accommodation.** For the purpose of standby, split duty, and rest, A well-furnished separate bedroom for each crew member which is subject to minimum noise, is well ventilated, and has the facility to control the levels of light intensity and temperature and access to food and drink.

(18) **Travelling.** Time spent by a crew member transferring between his/her place of rest and the place of reporting.

(19) **Window of Circadian Low (WOCL).** The Window of Circadian Low (WOCL) is the period between 02.00 and 05.59. Within a band of three time zones the WOCL refers to home base time. Beyond these three time zones the WOCL refers to home base time for the first 48 hours after departure from home base time zone, and to local time thereafter.

8.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in Part 8:

(1) **AAC** – all aircraft

(2) **ACAS** – airborne collision avoidance system

(3) **AD** – Airworthiness Directive

(4) **ADS** – automatic dependent surveillance

(5) **ADS-B** – automatic dependent surveillance – broadcast

(6) **ADS-C** – automatic dependent surveillance – contract

(7) **AGL** – above ground level

(8) **AIP** – Aeronautical Information Publication

(9) **AMO** – approved maintenance organisation

(10) **AMSL** – above mean sea level

(11) **AMT** – aviation maintenance technician

(12) **AOC** – air operator certificate

(13) **APU** – auxiliary power unit

(14) **ATC** – air traffic control

(15) **ATPL** – airline transport pilot licence

(16) **ATS** – air traffic service

(17) **ATZ** – Aerodrome Traffic Zone

(18) **CAT** – Category

(19) **CDL** – configuration deviation list

(20) **CG** – centre of gravity

(21) **CP** – co-pilot

(22) **CPL** – commercial pilot licence

(23) **CRM** – crew resource management

(24) **CRT** – cathode ray tube

(25) **CVR** – cockpit voice recorder

(26) **CVS** – combined vision system

(27) **DH** – decision height

(28) **EDTO** – extended diversion time operation

(29) **ETA** – estimated time of arrival

(30) **EVS** – enhanced vision system

(31) **FAS** – final approach segment

(32) **FDP** – Flight Duty Period

(33) **FDR** – flight data recorder

(34) **FE** – flight engineer

(35) **FL** – flight level

(36) **FN** – flight navigator

(37) **FOO** – flight operations officer

(38) **FRMS** – fatigue risk management system

(39) **FSTD** – flight simulation training device

(40) **GPS** – global positioning system

(41) **HUD** – head-up display

(42) **IAP** – instrument approach procedure

(43) **ICAO** – International Civil Aviation Organization

(44) **IFR** – instrument flight rules

(45) **ILS** – instrument landing system

(46) **IMC** – instrument meteorological conditions

(47) **INS** – inertial navigation system

(48) **IS** – Implementing Standards

(49) **LDA** – localiser-type directional aid

(50) **LOC** – localiser

(51) **LORAN** – long-range navigation

(52) **LVO** – low-visibility operations

(53) **LVTO** – low visibility take-off

(54) **MDA** – minimum descent altitude

(55) **MDH** – minimum descent height

(56) **MEA** – minimum en-route altitude

(57) **MEL** – minimum equipment list

(58) **MMEL** – master minimum equipment list

(59) **MNPS** – minimum navigation performance specifications

(60) **MOCA** – minimum obstruction clearance altitude

(61) **MSL** – mean sea level

(62) **NAT HLA** – North Atlantic high level airspace

(63) **NM** – nautical miles

(64) **NOTAM** – Notice to Airmen

(65) **NPA** – non-precision approach

(66) **OCA** – obstacle clearance altitude

(67) **OCA/H** – obstacle clearance altitude/height

(68) **OCH** – obstacle clearance height

(69) **OM** – Operations Manual

(70) **PA** – precision approach

(71) **PBN** – performance-based navigation

(72) **PIC** – pilot-in-command

(73) **PBE** – protective breathing equipment

(74) **RFFS** – rescue and fire fighting service

(75) **RNAV** – area navigation

(76) **RP** – remote pilot

(77) **RPA** – remotely piloted aircraft

(78) **RPAS** – remotely piloted aircraft system

(79) **RPS** – remote pilot station

(80) **RVR** – runway visual range

(81) **RVSM** – reduced vertical separation minimum

(82) **SCCM** – senior cabin crew member

(83) **SDF** – simplified directional facility

(84) **SM** – statute miles

(85) **SSR** – secondary surveillance radar

(86) **SVS** – synthetic vision system

(87) **TACAN** – tactical air navigation system

(88) **UTC** – coordinated universal time

(89) **VFR** – visual flight rules

(90) **VMC** – visual meteorological conditions

(91) **VSM** – vertical separation minimum

(92) $\mathbf{V_1}$ – take-off decision speed

(93) $\mathbf{V_{mo}}$ – maximum operating speed

(94) **VOR** – VHF omnidirectional radio range

(95) $\mathbf{V_{so}}$ – stalling speed or the minimum steady flight speed in the landing configuration

(96) **WOCL** - Window of Circidian Low

8.2 GENERAL OPERATIONS REQUIREMENTS

8.2.1 AIRCRAFT REQUIREMENTS

8.2.1.1 REGISTRATION MARKINGS

(a) No person may operate a Curaçao-registered aircraft unless the aircraft displays the proper markings as prescribed in Part 4 of these regulations.

8.2.1.2 CIVIL AIRCRAFT AIRWORTHINESS

(b) No person may operate a civil aircraft unless it is in an airworthy condition.

(c) Each PIC of a civil aircraft shall determine whether that aircraft is in a condition for safe flight.

(d) Each PIC of a civil aircraft shall discontinue a flight as soon as practicable when an unairworthy mechanical, electrical, or structural condition occurs.

8.2.1.3 SPECIAL CERTIFICATE OF AIRWORTHINESS OPERATIONAL RESTRICTIONS

(a) No person may operate an aircraft with a special certificate of airworthiness except as provided in the limitations issued with that certificate.

8.2.1.4 AIRCRAFT INSTRUMENTS AND EQUIPMENT

(a) No person may operate an aircraft unless the aircraft is equipped with the required instruments and navigation equipment appropriate to the type of operation conducted and the route being flown.

Note: The instruments and equipment required for specific operations are listed in Part 7 of these regulations.

8.2.1.5 INOPERATIVE INSTRUMENTS AND EQUIPMENT

(a) No person may take off an aircraft with inoperative instruments or equipment installed, except as authorised by the Authority.

(b) An AOC holder shall not operate a multi-engine aircraft with inoperative instruments and equipment installed unless the following conditions are met:

(1) An approved MEL exists for that aircraft.

(2) The Authority has issued the AOC holder operations specifications authorising operations in accordance with an approved MEL. The flight crew shall have direct access at all times before flight to all the information contained in the approved MEL through printed or other means approved by the Authority in the AOC holder's operations specifications. An approved MEL, as authorised by the operations specifications, constitutes an approved change to the type design without requiring recertification.

(3) The approved MEL shall:

(i) Be prepared in accordance with the limitations specified in paragraph 8.2.1.5(c) of this subsection; and

(ii) Provide for the operation of the aircraft with certain instruments and equipment in an inoperative condition.

(4) Records identifying the inoperative instruments and equipment and the information required by paragraph 8.2.1.5(b)(3)(ii) of this subsection shall be available to the pilot.

(5) The aircraft is operated under all applicable conditions and limitations contained in the MEL and the operations specifications authorising the use of the MEL.

(c) The following instruments and equipment shall not be included in the MEL:

(1) Instruments and equipment that are either specifically or otherwise required by the airworthiness requirements under which the aircraft is type certificated and that are essential for safe operations under all operating conditions;

(2) Instruments and equipment required by an AD to be in operable condition unless the AD provides otherwise; and

(3) Instruments and equipment required for specific operations under Parts 7, 8, and/or 9 of these regulations.

(d) Notwithstanding paragraphs 8.2.1.5(c)(1) and (3) of this subsection, an aircraft with inoperative instruments or equipment may be operated under a special flight permit under 5.3.1.7 of these regulations.

(e) In situations where no MMEL is available and no MEL is required for the specific aircraft operation under these regulations, operations in an aircraft with inoperative instruments and equipment installed may commence provided the following conditions are met:

(1) The inoperative instruments and equipment shall not be:

(i) Part of the day VFR instruments and equipment prescribed in Part 7 of these regulations;

(ii) Required on the aircraft's equipment list or the operations equipment list for the type of flight operation being conducted;

(iii) Required by Part 7 for the specific type of flight operation being conducted; or

(iv) Required to be operational by an AD.

(v) The inoperative instruments and equipment shall be:

(vi) Determined by the PIC not to be a hazard to safe operation;

(vii) Deactivated and placarded "Inoperative"; and

(viii) Removed from the aircraft, the flight deck control placarded, and the maintenance recorded in accordance with Part 5 of these regulations.

(f) If deactivation of the inoperative instrument or equipment involves maintenance, it shall be accomplished and recorded in accordance with Part 5 of these regulations.

Note: The instruments and equipment required for specific operations are listed in Part 7 of these regulations.

8.2.1.6 CIVIL AIRCRAFT FLIGHT MANUAL, MARKING, AND PLACARD REQUIREMENTS

(a) No person may operate a Curacao registered civil aircraft unless there is available in the aircraft:

(1) A current, approved Aircraft Flight Manual or Rotorcraft Flight Manual; or

(2) An Aircraft Operating Manual approved by the Authority for the AOC holder; and

(3) If no Aircraft Flight Manual or Rotorcraft Flight Manual exists, approved manual material, markings, and placards, or any combination thereof, that provide the PIC with the necessary limitations for safe operation.

(b) No person may operate a civil aircraft within or over Curacao without complying with the operating limitations specified in the approved Aircraft Flight Manual or Rotorcraft Flight Manual, markings, and placards, or as otherwise prescribed by the Authority of the aircraft's State of Registry.

(c) Each Aircraft Flight Manual or Rotorcraft Flight Manual shall be updated by implementing changes made mandatory by the State of Registry.

(d) Each operator shall display in the aircraft all placards, listings, and instrument markings, or combinations thereof, containing those operating limitations prescribed for visual presentation by the certificating Authority for the aircraft's State of Registry.

8.2.1.7 REQUIRED AIRCRAFT AND EQUIPMENT INSPECTIONS

(a) Unless otherwise authorised by the Authority, no person may operate a Curacao -registered civil aircraft unless it has had the appropriate inspections required by 8.3 of this part.

8.2.1.8 DOCUMENTS TO BE CARRIED ON BOARD AIRCRAFT – ALL OPERATIONS

(a) Except as provided in 8.2.1.6 of this part, no person may operate a civil aircraft in commercial air transport operations unless the following current and approved documents are carried on board the aircraft:

(1) Certificate of aircraft registration issued to the owner;

(2) Certificate of airworthiness;

(3) Aircraft journey log;

(4) Insurance certificate

(5) Aircraft radio licence;

(6) List of passenger names and points of embarkation and destination, if applicable;

(7) Cargo manifest, including special loads information;

(8) Aircraft technical log;

(9) AOC, if required;

(10) Noise certificate, if required;

(11) Aircraft Flight Manual or Rotorcraft Flight Manual, as applicable;

(12) Part(s) of the OM relevant to operation(s) conducted;

(13) MEL;

(14) CAT II or CAT III manual, as applicable;

(15) Operational flight plan, for all international flights;

(16) Filed ATC flight plan;

(17) NOTAMs briefing documentation;

(18) Meteorological information;

(19) Mass and balance documentation;

(20) Roster of special situation passengers;

Note: "Special situation passengers" include armed security personnel, deportees, persons in custody, and persons with special medical needs.

(21) Maps and charts for routes of proposed flight or possibly diverted flights;

(22) Forms for complying with the reporting requirements of the Authority and the AOC holder;

(23) For international flights, a general declaration for customs;

(24) Appropriate licences for each member of the flight crew;

(25) Copy of the release to service, if any, in force with respect to the aircraft;

(26) Search and rescue information, for international flights;

(27) A certified true copy of the agreement summary of the Article 83 bis agreement entered into between the State of Registry and the State of the Operator, in either an electronic or hard copy format. When the summary is issued in a language other than English, an English translation shall be included; and

(28) Any documentation that may be required by the Authority or States concerned with a proposed flight.

(b) Except as provided in 8.2.1.6 of this part, no person may operate a civil aircraft in general aviation operations or aerial work operations unless the following current and approved documents are carried on board the aircraft:

(1) Certificate of aircraft registration issued to the owner;

(2) Certificate of airworthiness;

(3) Insurance certificate

(4) Aircraft journey log;

(5) Aircraft radio licence, for international flights;

(6) List of passenger names and points of embarkation and destination, if applicable;

(7) Cargo manifest, including special loads information;

(8) Appropriate licences for each member of the flight crew;

(9) Copy of the release to service, if any, in force with respect to the aircraft, or technical log, as applicable;

(10) Noise certificate, if required;

(11) Aircraft Flight Manual or Rotorcraft Flight Manual, as applicable;

(12) CAT II or CAT III manual, as applicable;

(13) Operational flight plan, for all international flights;

(14) NOTAMs briefing documentation;

(15) Maps and charts for routes of proposed flight or possibly diverted flights;

(16) Forms for complying with the reporting requirements of the Authority;

(17) For international flights, a general declaration for customs;

(18) Aerial work certificate for aerial work operators;

(19) Search and rescue information, for international flights; and

(20) Any documentation that may be required by the Authority or States concerned with a proposed flight.

Note 1: Guidance concerning the transfer of responsibilities by the State of Registry to the State of the Operator in accordance with Article 83 bis is contained in ICAO Doc 10059, Manual on the Implementation of Article 83 bis of the Convention on International Civil Aviation.

Note 2: The document attesting noise certification shall state the Standards in ICAO Annex 16, Volume I. The document may be contained in any document, carried on board, approved by the State of Registry.

8.3 AIRCRAFT CONTINUING AIRWORTHINESS AND INSPECTION REQUIREMENTS

8.3.1.1 APPLICABILITY

(a) This Subpart prescribes the rules governing the continuing airworthiness and inspection of Curaçao registered civil aircraft operating within or outside Curaçao.

(b) Where any aircraft, not registered in Curaçao and operating under an inspection programme approved or accepted by the State of Registry, does not have the equipment required by Curaçao, for operations within Curaçao, the owner or operator shall ensure that such equipment is installed and inspected in accordance with the requirements of the State of Registry, acceptable to the Authority before operation of that aircraft in Curaçao.

(c) Annual inspections and annual inspections plus 100-hour inspections in 8.3.1.4 of this part do not apply to:

(1) An aircraft that carries a special flight permit, a current experimental certificate, or a provisional certificate of airworthiness;

(2) An aircraft subject to the requirements of progressive inspections in 8.3.1.5 of this part;

(3) An aircraft subject to the requirements of continuing airworthiness inspections in 8.3.1.6 of this part; and

(4) A large aeroplane, a turbine-powered multi-engine aeroplane, or a turbine-powered rotorcraft when the operator elects to inspect that rotorcraft in accordance with the requirements of continuing airworthiness inspections in 8.3.1.6 of this part.

8.3.1.2 GENERAL

(a) The registered owner or operator of an aircraft shall maintain that aircraft in an airworthy condition, including compliance with all ADs.

(b) No person may perform maintenance, overhaul, modifications, repairs, or inspections on an aircraft except as prescribed in this subpart and other applicable regulations, including Part 5 of these regulations.

(c) No person may operate an aircraft for which a manufacturer's Aircraft Maintenance Manual or instructions for continuing airworthiness have been issued that contain an airworthiness limitations section unless the mandatory replacement times, inspection intervals, and related procedures set forth in operations specifications approved by the Authority under Part 9 of these regulations for AOC holders, or in accordance with an inspection programme approved under this subsection, are complied with.

(d) The owner or operator shall use one of the following inspection programmes, as appropriate for the aircraft and the type of operation:

(1) Annual;

(2) Annual/100-hour;

(3) Progressive; or

(4) Continuing airworthiness maintenance programme.

(e) No aircraft shall be approved for return to service after inspection unless the replacement times for life-limited parts specified in the aircraft specification type certificate data sheets are complied with

and the aircraft, including aeronautical products and survival and emergency equipment, is inspected in accordance with the selected inspection programme.

(f) Each person wishing to establish or change an approved inspection programme shall submit the programme for approval by the Authority and shall include in writing:

(1) Instructions and procedures for the conduct of inspection for the particular make and model of aircraft, including necessary tests and checks. The instructions shall set forth in detail the parts and areas of the aeronautical products, including survival and emergency equipment required to be inspected; and

(2) A schedule for the inspections that shall be performed expressed in terms of time in service, calendar time, number of system operations, or any combination of these.

(g) When an owner or operator changes from one inspection programme to another, the owner or operator shall, in determining when the inspection is due under the new programme, apply the time in service, calendar times, or cycles of operation accumulated under the previous programme.

(h) The design and application of the operator's maintenance programme shall observe Human Factors principles.

8.3.1.3 ANNUAL INSPECTIONS

(a) An annual inspection programme may be used for non-complex aircraft with a maximum certificated take-off mass of less than 5,700 kg (12,566 lb) or less that are not used for compensation or hire.

(b) An annual inspection subsection may be performed by an AMO.

(c) No person may operate an aircraft unless, within the preceding 12 calendar months, the aircraft has had:

(1) An annual inspection in accordance with Part 5 of these regulations and has been approved for return to service by an AMO certificated in accordance with Part 6 of these regulations; or,

(2) An inspection for the issuance of a certificate of airworthiness completed by the Authority in accordance with Part 5 of these regulations.

8.3.1.4 ANNUAL/100 HOUR INSPECTIONS

(a) No person may operate a non-complex aircraft with a maximum certificated take-off mass of 5,700 kg (12,566 lb) or less carrying any person (other than a crew member) for compensation or hire, and no person may give flight instruction for compensation or hire in an aircraft provided by that person, unless:

(1) Within the preceding 100 hours of time in service, the aircraft has received an annual or a 100-hour inspection, and

(2) The aircraft has been approved for return to service in accordance with Part 5 of these regulations.

(b) The 100-hour limitation may be exceeded by not more than 10 hours while en-route to reach a place where the inspection can be performed. The excess time used to reach a place where the inspection can be performed shall be included in computing the next 100 hours of time in service.

(c) An annual inspection under this subsection may be performed and the aircraft may be returned to service by an AMO certificated in accordance with Part 6 of these regulations.

(d) A 100-hour inspection under this subsection may be performed and the aircraft may be returned to service by an AMO certificated in accordance with Part 6 of these regulations.

8.3.1.5 PROGRESSIVE INSPECTIONS

(a) A progressive inspection programme may be used for aircraft with a maximum certificated take-off mass of 5,700 kg (12,566 lb) or less.

(b) Aircraft inspected under a progressive inspection programme may be used for compensation or hire.

(c) Each registered owner or operator of an aircraft desiring to use a progressive inspection programme shall submit a written request to the Authority, and shall provide:

(1) An AMO appropriately rated in accordance with Part 6 of these regulations, or the manufacturer of the aircraft to supervise or conduct the progressive inspection;

(2) A current inspection procedures manual that is available and readily understandable to pilot and maintenance personnel and contains, in detail:

(i) An explanation of the progressive inspection, including the continuity of inspection responsibility, the making of reports, and the keeping of records and technical reference material;

(ii) An inspection schedule, specifying the intervals in hours or days when routine and detailed inspections will be performed and including instructions for exceeding an inspection interval by not more than 10 hours while en-route and for changing an inspection interval because of service experience;

(iii) Sample routine and detailed inspection forms and instructions for their use; and

(iv) Sample reports and records and instructions for their use;

(3) Enough housing and equipment for necessary disassembly and proper inspection of the aircraft; and

(4) Appropriate current technical information for the aircraft.

(d) The frequency and detail of the progressive inspection shall provide for the complete inspection of the aircraft within each 12 calendar-months and shall be consistent with the current manufacturer's recommendations, field service experience, and the type of operation in which the aircraft is engaged.

(e) The progressive inspection schedule shall ensure that the aircraft, at all times, is airworthy and will conforms to all applicable aircraft specifications, type certificate data sheets, ADs, and other approved data acceptable to the Authority.

(f) Each owner or operator shall include in the progressive inspection programme the name and address of the person responsible for the scheduling of the inspections required by the programme and shall provide a copy of the programme to the person performing inspection on the aircraft.

(g) If the progressive inspection programme is discontinued, the owner or operator shall immediately notify the Authority, in writing, of the discontinuance.

(1) After the discontinuance, the first annual inspection under Part 8 is due within 12 calendar months after the last complete inspection of the aircraft under the progressive inspection programme.

(2) The 100-hour inspection is due within 100 hours after the last complete inspection under the progressive inspection programme.

(3) A complete inspection of the aircraft, for the purpose of determining when the annual and 100 hour inspections are due, requires a detailed inspection of the aircraft and all its components in accordance with the progressive inspection programme.

(4) A routine inspection of the aircraft and a detailed inspection of several components are not considered to be a complete inspection.

8.3.1.6 CONTINUING AIRWORTHINESS INSPECTIONS

(a) The registered owner or operator of each large aeroplane with a maximum certificated take-off mass of over 5,700 kg (12,566 lb), turbine-powered multi-engine aeroplane, or turbine-powered rotorcraft shall select, identify in the aircraft continuing airworthiness records, and use one of the following continuing airworthiness inspection programmes for the inspection of the aircraft:

(1) A current inspection programme recommended by the manufacturer;

(2) A continuing airworthiness maintenance programme for that make and model of aircraft currently approved by the Authority for use by an AOC holder; or

(3) Any other inspection programme established by the registered owner or operator of that aircraft and approved by the Authority.

(b) Each owner or operator shall include in the selected inspection programme the name and address of the person responsible for the scheduling of the inspections required by the programme and shall provide a copy of the programme to the person performing inspection on the aircraft.

Note: The aircraft manufacturer's inspection programme and any other inspection programme approved by the Authority, will specify who can perform aircraft maintenance and inspections and approve the aircraft for return to service.

8.3.1.7 CHANGES TO AIRCRAFT MAINTENANCE INSPECTION PROGRAMMES

(a) Whenever the Authority finds that revisions to an approved inspection programme are necessary for the continued adequacy of the programme, the owner or operator shall, after notification by the Authority, make any changes in the programme found to be necessary.

(b) Within 30 days after receiving the notice from the Authority, the owner or operator may petition the Authority to reconsider the notice.

(c) Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Authority.

8.3.1.8 REQUIRED MAINTENANCE

(a) Each owner or operator of an aircraft shall:

(1) Have that aircraft inspected as prescribed in 8.3 of this part and shall have discrepancies repaired as prescribed in the performance rules of Part 5 of these regulations;

(2) Repair, replace, remove, or inspect any inoperative instruments or items of equipment at the next required inspection, except when permitted to be deferred under the provisions of an MEL;

(3) Ensure that a placard has been installed on the aircraft when listed discrepancies include inoperative instruments or equipment; and

(4) Ensure that maintenance personnel make appropriate entries in the aircraft continuing airworthiness records indicating the aircraft has been approved for return to service.

8.3.1.9 CONTINUING AIRWORTHINESS RECORDS RETENTION

(a) Except for records maintained by an AOC holder, each registered owner or operator shall retain the following continuing airworthiness records until the work is repeated or superseded by other work of equivalent scope and detail:

(1) Records of the maintenance, overhaul, modifications, repairs, and inspections and records of the 100-hour, annual, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft to include:

(i) A description (or reference to data acceptable to the Authority) of the work performed,

(ii) The date of completion of the work performed; and

(iii) The signature and certificate number of the person approving the aircraft for return to service; and

(2) Records containing the following information:

(i) The total time-in-service of the airframe, each engine, each propeller, and each rotor

(ii) The current status of all life-limited aeronautical products;

(iii) The time since the last overhaul of all items installed on the aircraft that are required to be overhauled on a specified time basis;

(iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection programme under which the aircraft aeronautical products are maintained

(v) The current status of applicable ADs, including, for each, the method of compliance, the AD number, and the revision date. If the AD involves a recurring action, include the time and date when the next action is required; and

(vi) Copies of the forms prescribed by this part for each major modification to the airframe and currently installed engines, rotors, propellers, and appliances.

(b) The records specified in paragraph 8.3.1.9(a) of this subsection shall be retained and transferred with the aircraft at the time the aircraft is sold or leased.

(c) A list of defects shall be retained until the defects are repaired and the aircraft is approved for return to service.

(d) The owner or operator shall make all continuing airworthiness records required by this subsection available for inspection by the Authority.

Note 1: Guidance regarding electronic aircraft continuing airworthiness records is included in ICAO Doc 9760, Airworthiness Manual.

Note 2: Continuing airworthiness record requirements for AOC holders are prescribed in Part 9 of these regulations.

8.3.1.10 LEASE OR SALE OF AIRCRAFT—TRANSFER OF CONTINUING AIRWORTHINESS RECORDS

(a) Any owner or operator who sells or leases a Curaçao-registered aircraft shall transfer to the purchaser or lessor, at the time of sale or lease, the records for that aircraft as identified in § 8.3.1.9, which shall be maintained in a form and format that ensures readability, security, and integrity of the records at all times in plain language form or in coded form at the election of the purchaser or lessor if the coded form provides for the preservation and retrieval of information in a manner acceptable to the Authority.

8.4 FLIGHT CREW REQUIREMENTS

8.4.1.1 COMPOSITION OF THE FLIGHT CREW

(a) The number and composition of the flight crew may not be less than that specified in the flight manual or other documents associated with the certificate of airworthiness.

(b) Where radio equipment is installed in the aircraft, the flight crew shall include at least one member who holds a valid radio licence authorising operation of the type of radio transmitting equipment to be used.

(c) When navigation necessary for the safe operation of the aeroplane cannot be accomplished from the pilot's station the flight crew shall include a member who holds a flight navigator licence.

(d) A CP is required for IFR commercial air transport operations, unless the Authority has issued an exemption in accordance with the exemption process in Part 1 of these regulations, for the use of an autopilot in lieu of a CP. If such operations are to be conducted outside Curaçao, the Authority shall have an arrangement with the States where operations are conducted. This exemption is applicable for aeroplanes with a maximum certificated take-off mass of 5,700 kg (12,566 lb) or less or helicopters with a maximum certificated take-off mass of 3 175 kg (7000 lb) or less.

(e) When a separate FE's station is incorporated in the design of an aeroplane and the FE function cannot be accomplished from the pilot's station by a pilot who holds a FE licence without interference with regular duties, the flight crew shall include at least one crew member who holds an FE licence engineer licence especially assigned to that station.

8.4.1.2 FLIGHT CREW QUALIFICATIONS

(a) The PIC shall ensure that the licences of each flight crew member have been issued or rendered valid by the State of Registry and contain the proper ratings, and that all the flight crew members have maintained recency of experience.

(b) No person may operate a civil aircraft in commercial air transport or aerial work unless that person is qualified for the specific operation and in the specific type of aircraft used.

(c) The owner or operator of an aircraft shall ensure that the flight crew members demonstrate the ability to speak and understand the language used for radiotelephony communications and for international operations.

8.4.1.3 AUTHORISATION IN LIEU OF A TYPE RATING

(a) The Authority may authorise a pilot to operate an aircraft requiring a type rating without a type rating for up to 60 days, provided:

(1) The Authority has determined that an equivalent level of safety can be achieved through the operating limitations on the authorisation;

(2) The applicant shows that compliance with this subsection is impracticable for the flight or series of flights;

(3) The operations:

(i) Involve only a ferry flight, training flight, test flight, or skill test for a pilot licence or rating;

(ii) Are conducted within the Curaçao FIR, unless, by previous agreement with the Authority of the other State, the aircraft is flown to an adjacent contracting State for maintenance;

(iii) Are not for compensation or hire unless the compensation or hire involves payment for the use of the aircraft for training or taking a skill test; and

(iv) Involve only the carriage of crew members considered essential for the flight.

(4) If the purpose of the authorisation provided by paragraph 8.4.1.3(a) of this subsection cannot be accomplished within the time limit of the authorisation, the Authority may authorise an additional period of up to 60 days.

8.4.1.4 LICENCES REQUIRED

(a) Except as provided for in Subsection 8.4.1.3 of this part, no person may act as PIC or in any other capacity as a required flight crew member of a civil aircraft of:

(1) Curaçao registry, unless he or she carries in his or her personal possession the appropriate and current Curacao licence or validation for that flight crew position for that type of aircraft and a valid medical certificate;

(2) foreign registry unless he or she carries in his or her personal possession a valid and current licence for that type of aircraft, issued or validated by the State in which the aircraft is registered.

8.4.1.5 RATING REQUIRED FOR INSTRUMENT FLIGHT RULES OPERATIONS

(a) No person may act as pilot of a civil aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless:

(1) The pilot holds an instrument rating or an ATPL licence with an appropriate aircraft category, class, and type (if required) rating for the aircraft being flown;

(2) For a helicopter, the pilot holds a helicopter instrument rating

8.4.1.6 SPECIAL AUTHORISATION REQUIRED FOR CATEGORY II/III OPERATIONS

(a) Except as shown in paragraph 8.4.1.6(b) of this subsection), no person may act as pilot of a civil aircraft in a Category II/III operation unless:

(1) In the case of a PIC, he or she holds a current CAT II or III pilot authorization issued by the State of Registry for that aircraft type; or

(2) In the case of a CP, he or she is authorized by the State of Registry to act as CP in that aircraft type in CAT II/III operations.

(b) An authorisation is not required for individual pilots of an AOC holder that has operations specifications approving CAT II or III operations.

8.4.1.7 PILOT LOGBOOKS

(a) Each pilot shall show the aeronautical training and experience used to meet the requirements for a licence or rating, or for recency of experience, by a reliable record.

(b) Each PIC shall carry his or her logbook on all general aviation international flights.

(c) A student pilot shall carry his or her logbook, including the proper flight instructor endorsements, on all solo cross-country flights.

Note: The acceptable methods of logging experience are outlined in Part 2 of these regulations.

8.4.1.8 PILOT RECENCY AND PROFICIENCY – GENERAL AVIATION OPERATIONS

(a) The recency and proficiency requirements for general aviation operations are listed in Part 2: 2.3.1.6 of these regulations.

8.4.1.9 FLIGHT CREW—LIMITATIONS ON USE OF SERVICES FOR COMMERCIAL AIR TRANSPORT

(a) No person may serve as a flight crew member in commercial air transport, nor may any AOC holder use a flight crew member in commercial air transport unless that person is otherwise qualified for the operations for which he or she is to be used.

(b) The qualifications, training and proficiency checking for flight crew members engaged in commercial air transport operations are provided in 8.10 of this part.

(c) The recency and proficiency requirements for flight crew members engaged in commercial air transport operations are prescribed in 8.4.1.10 through 8.4.1.14 of this part.

8.4.1.10 PILOT RECENCY—TAKE-OFF AND LANDINGS, COMMERCIAL AIR TRANSPORT OPERATIONS

(a) No person may act as PIC or CP of an aircraft carrying passengers unless, within the preceding 90 days, that person has:

(1) Made three take-offs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type or in an FSTD approved for the purpose.

(2) For a tailwheel aeroplane, made the three take-offs and landings required by paragraph 8.4.1.10(a)(1) of this subsection in a tailwheel aeroplane with each take-off and landing to a full stop.

(3) For night operations, made the three take-offs and landings required by paragraph 8.4.1.10(a)(1) of this subsection at night with each take-off and landing to a full stop.

(b) A pilot who has not met the recency of experience for take-offs and landings shall satisfactorily complete a requalification curriculum acceptable to the Authority.

(c) The requirements of paragraphs 8.4.1.10(a) and (b) of this subsection may be satisfied in an FSTD approved by the Authority.

8.4.1.11 PILOT RECENCY- INSTRUMENT FLIGHT RULES OPERATIONS

(a) No person may act as a pilot under IFR, or in IMC, unless that person has, within the preceding 6 calendar months:

(1) Logged at least 6 hours of instrument flight time including at least 3 hours in flight in the category of aircraft; and

(2) Completed at least six instrument approaches.

(b) A pilot who has completed an instrument proficiency check with an authorised representative of the Authority retains currency for IFR operations for 6 calendar-months following that check.

(c) Requirements of paragraphs (a) and (b) may be satisfied in a flight simulator approved by the Authority.

8.4.1.12 PILOT RECENCY – CRUISE RELIEF PILOT, COMMERCIAL AIR TRANSPORT OPERATIONS

(a) No person may act as a cruise relief pilot in commercial air transport unless within the preceding 90 days, that person has either:

(1) Operated as PIC, CP, or cruise relief pilot on the same type of aircraft; or

(2) Carried out flying skill refresher training including normal, abnormal and emergency procedures specific to cruise flight on the same type of aircraft or in an FSTD approved for the purpose, and has practiced approach and landing procedures, where the approach and landing procedure practice may be performed as the pilot who is not flying the aircraft.

(b) When a cruise relief pilot is flying several variants of the same type of aircraft or different types of aircraft with similar characteristics in terms of operating procedures, systems, and handling, the recency or refresher training may be combined, if approved by the Authority.

8.4.1.13 PILOT RECENCY – NIGHT VISION GOGGLES

(a) No person may act as PIC in a night vision goggle operation unless that person has completed the required training prescribed in Part 2: 2.3.2.9 of these regulations and has performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle

operation, within the preceding 60 days to act as PIC with passengers on board, or within the preceding 120 days to act as PIC without passengers on board:

(1) 3 take-offs and landings, with each take-off and landing including a climbout, cruise, descent, and approach phase of flight, if the pilot intends to use night visions goggles during the take-off and landing phase of flight;

(2) 3 hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;

(3) 3 area departure and area arrival tasks;

(4) 3 tasks of transitioning from aided night flight to unaided night flight and back to aided night flight; or

(5) 3 night vision goggle operations, or when operating helicopters or powered-lifts, 6 night vision goggle operations.

(b) No person may act as PIC in a night vision goggle operation unless that person has successfully completed the night vision goggles proficiency check required in Part 2: 2.3.2.9, with the Authority or an authorised representative of the Authority.

8.4.1.14 PILOT PROFICIENCY - COMMERCIAL AIR TRANSPORT OPERATIONS

(a) The qualification, training and proficiency checking requirements for flight crew members engaged in commercial air transport are prescribed in 8.10 of this part. Additionally, the requirements in paragraphs 8.4.1.14(b) and (c) of this subsection shall be met, as applicable.

(b) ALL PILOTS. No person shall act as a pilot of an aircraft unless that person has, within the preceding 12 months, successfully passed two proficiency checks conducted by an authorised representative of the Authority. The proficiency check requirement:

(1) Shall ensure that piloting technique and the ability to execute emergency procedures is checked in such a way as to demonstrate the pilot's competence on each type or variant of a type of aircraft, including where the operations may be conducted under IFR;

(2) Shall not be satisfied by the conduct of two checks that are similar and that occur within a period of 4 consecutive months; and

(3) May be combined for several variants of the same type of aircraft or different types of aircraft with similar characteristics in terms of operating procedures, systems and handling, if approved by the Authority.

(c) SINGLE-PILOT OPERATIONS. No person shall act as PIC of an aircraft unless that person has completed the following proficiency requirements in the class of aeroplane in an environment representative of the operation:

(1) For operations under the IFR or at night, the person shall have accumulated at least 50 hours flight time on the class of aeroplane, of which at least 10 hours shall be as PIC;

(2) For operations under the IFR, the person shall have accumulated at least 25 hours flight time under the IFR on the class of aeroplane, which may form part of the 50 flight time in paragraph 8.4.1.14(c)(1) of this subsection;

(3) For operations at night, the person shall have accumulated at least 15 hours flight time at night, which may form part of the 50 hours flight time in paragraph 8.4.1.14(c)(1) of this subsection; and

(4) The person shall have successfully completed training programmes that include, in addition to the operator's training programme, passenger briefing with respect to emergency evacuation, autopilot management, and the use of simplified in-flight documentation.

(d) The aircraft pilot proficiency check and the instrument proficiency check shall be accomplished by the Authority or an authorised representative of the Authority in the category, class and type of aircraft to be operated, or in an FSTD approved for the purpose, to the requirements prescribed in 8.10.1.20 of this part, in IS 8.10.1.20, and in the applicable skill test in Part 2 of these regulations.

(e) NIGHT VISION GOGGLES OPERATION. No person may act as PIC in a night vision goggle operation unless, the pilot has completed the required training prescribed in Part 2: 2.3.2.9 of these regulations and either:

(1) Meets the currency requirements in paragraph 8.4.1.13(a) of this part; or

(2) Passes the night vision goggles proficiency check required by paragraph 8.4.1.13(b) of this part with Authority or an authorised representative of the Authority.

8.4.1.15 PILOT PRIVILEGES AND LIMITATIONS

(a) A pilot may conduct operations only within the general privileges and limitations of each licence, rating or authorisation as specified in Part 2 of these regulations.

8.4.1.16 DECOMPRESSION SICKNESS AFTER SCUBA DIVING.

(a) A pilot who intends to fly after scuba diving shall allow the body sufficient time to rid itself of excess nitrogen absorbed during diving. If not, decompression sickness due to evolved gas can occur during exposure to low altitude and create a serious in-flight emergency.

(b) The waiting time before going to flight altitudes of up to 8,000 feet shall be at least:

(1) 12 hours after diving which has not required controlled ascent (non-decompression stop diving); and

(2) At least 24 hours after diving which has required controlled ascent (decompression stop diving).

(d) The waiting time before going to flight altitudes above 8,000 feet shall be at least 24 hours after any SCUBA dive.

(c) These above-mentioned altitudes are actual flight altitudes above mean sea level (AMSL) and not pressurized cabin altitudes.

8.5 CREW MEMBER DUTIES AND RESPONSIBILITIES

8.5.1.1 AUTHORITY AND RESPONSIBILITY OF THE PILOT-IN-COMMAND

(a) The PIC shall be responsible for the operations and safety of the aircraft and for the safety of all persons on board, during flight.

(b) The PIC of an aircraft shall have final authority as to the operation of the aircraft while he or she is in command.

(c) The PIC of an aircraft shall, whether manipulating the controls or not, be responsible for the operation of the aircraft in accordance with the rules of the air, except that the PIC may depart from these rules in emergency circumstances that render such departure absolutely necessary in the interests of safety.

(d) The PIC shall not conduct general aviation operations for which a specific approval is required unless such approval has been issued by the State of Registry. Specific approvals shall follow the layout and contain at least the information prescribed in IS 8.5.1.1.

8.5.1.2 COMPLIANCE WITH LOCAL REGULATIONS

(a) The PIC shall comply with the relevant laws, regulations and procedures of the States in which the aircraft is operated.

(b) If an emergency situation that endangers the safety of the aircraft or persons necessitates the taking of action that involves a violation of local regulations or procedures, the PIC shall:

(1) Notify the appropriate local Authority without delay;

(2) Submit a report of the circumstances, if required by the State in which the incident occurs; and

(3) Submit a copy of this report to the State of the Operator of the AOC or to the State of Registry, in general aviation.

(c) Each PIC shall submit to the Authority within 10 days, on a form and in a manner prescribed by the Authority, the report specified in paragraph 8.5.1.2(b) of this subsection.

8.5.1.3 NEGLIGENT OR RECKLESS OPERATIONS OF THE AIRCRAFT

(a) No person may operate an aircraft in a negligent or reckless manner so as to endanger life or property of others.

8.5.1.4 FITNESS OF FLIGHT CREW MEMBERS

(a) No person may act as PIC or in any other capacity as a required flight crew member when he or she is aware of any decrease in his or her medical fitness that might render the crew member unable to safely exercise the privileges of his or her licence.

(b) The PIC shall be responsible for ensuring that a flight is not:

(1) Commenced if any flight crew member is incapacitated from performing duties by any cause such as injury, sickness, fatigue, the effects of alcohol or drugs; or

(2) Continued beyond the nearest suitable aerodrome if a flight crew member's capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness or lack of oxygen.

8.5.1.5 PROHIBITION ON USE OF PSYCHOACTIVE SUBSTANCES, INCLUDING NARCOTICS, DRUGS OR ALCOHOL

(a) No person may act or attempt to act as a crew member of a civil aircraft:

(1) Within 10 hours after the consumption of any alcoholic beverage;

(2) While under the influence of alcohol; or

(3) While using any psychoactive substance that affects the person's faculties in any way contrary to safety

(b) A crew member shall, up to 10 hours before or immediately after acting or attempting to act as a crew member, on the request of a law enforcement officer or the Authority, submit to a test to indicate the presence of alcohol or other psychoactive substances in the blood.

(c) Whenever there is a reasonable basis to believe that a person may not be in compliance with this subsection and upon the request of the Authority, that person shall furnish the Authority or shall authorise any clinic, doctor, or other person to release to the Authority, the results of each blood test taken for the presence of alcohol or narcotic substances up to 10 hours before or immediately after acting or attempting to act as a crew member.

(d) Any test information provided to the Authority under the provisions of this section may be used as evidence in any legal proceeding.

8.5.1.6 FLIGHT CREW MEMBER USE OF SEAT BELTS AND SHOULDER HARNESSES

(a) Each flight crew member shall have his or her seat belts fastened during take-off and landing and at all other times when seated at his or her station.

(b) Each flight crew member occupying a station equipped with a shoulder harness shall fasten that harness during take-off and landing, except that the shoulder harness may be unfastened if the crew member cannot perform the required duties with the shoulder harness fastened.

(c) Each flight crew member occupying a seat equipped with a combined safety belt and shoulder harness shall have the combined safety belt and shoulder harness properly secured about that crew member during take-off and landing, except that the combined safety belt and shoulder harness may be unfastened if the crew member cannot perform the required duties with the combined safety belt and shoulder harness fastened.

(d) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crew members in the performance of their duties or with the rapid egress of occupants in an emergency.

8.5.1.7 FLIGHT CREW MEMBERS AT DUTY STATIONS

(a) Each required flight crew member shall remain at the assigned duty station during take-off and landing and during critical phases of flight.

(b) Each flight crew member shall remain at his or her station during all phases of flight unless:

(1) Absence is necessary for the performance of his or her duties in connection with the operation;

(2) Absence is necessary for physiological needs, provided one qualified pilot remains at the controls at all times; or

(3) The crew member is taking a rest period and a qualified relief crew member replaces him or her at the duty station.

(i) For the assigned PIC during the en-route cruise portion of the flight by a pilot who holds an ATPL and an appropriate type rating, and who is currently qualified as PIC or CP, and is qualified as PIC of that aircraft during the en-route cruise portion of the flight; and

(ii) In the case of the assigned CP, by a pilot qualified to act as PIC or CP of that aircraft during en-route operations

8.5.1.8 REQUIRED CREW MEMBER EQUIPMENT

(a) Each crew member involved in night operations shall have an independent portable light at his or her station.

(b) Each crew member shall have at his or her station an aircraft checklist containing the normal, abnormal, and emergency procedures relating to the operation of that type of aircraft.

(c) Each crew member shall have at his or her station current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

(d) Each flight crew member assessed as fit to exercise the privileges of a licence subject to the use of suitable correcting lenses, shall have a spare set of the correcting lenses readily available when performing as a required crew member in commercial air transport.

8.5.1.9 COMPLIANCE WITH CHECKLISTS

(a) The PIC shall ensure that the flight crew follows the approved checklist procedures when operating the aircraft.

8.5.1.10 SEARCH AND RESCUE INFORMATION

(a) For all international flights, the PIC shall have on board the aircraft essential information concerning the search and rescue services in the areas over which he or she intends to operate the aircraft.

8.5.1.11 PRODUCTION OF AIRCRAFT AND FLIGHT DOCUMENTATION

(a) The PIC shall, within a reasonable time of being requested to do so by a person authorised by the Authority, produce to that person the documentation required to be carried on the aircraft.

8.5.1.12 LOCKING OF FLIGHT DECK COMPARTMENT DOOR: COMMERCIAL AIR TRANSPORT

(a) The PIC shall ensure that the flight deck compartment door (if installed) is closed and locked at all times during passenger-carrying commercial air transport operations, except as necessary to accomplish approved operations or to provide for emergency evacuation, and as listed below:

(1) From the time all external doors are closed following embarkation, until

(2) Any such door is opened for disembarkation, except

(3) When necessary to permit access and egress by authorised persons.

(b) No person may operate a passenger-carrying aeroplane unless it is equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons; this door shall be capable of being locked and unlocked from either pilot's station, for aeroplanes with a maximum certificated take-off mass in excess of:

(1) 54 500 kg;

(2) 45 000 kg and with a passenger seating capacity greater than 19; or

(3) With a passenger seating capacity greater than 60.

8.5.1.13 ADMISSION TO THE FLIGHT DECK—COMMERCIAL AIR TRANSPORT

(a) No person may admit any person to the flight deck of an aircraft engaged in commercial air transport operations unless the person being admitted is:

(1) A crew member;

(2) A representative of the Authority responsible for certification, licensing or inspection, if this is required for the performance of his or her official duties; or

(3) Permitted by and carried out in accordance with instructions contained in the OM.

(b) The PIC shall ensure that:

(1) In the interest of safety, admission to the flight deck does not cause distraction and/or interference with the flight's operations; and

(2) All persons carried on the flight deck are made familiar with the relevant safety procedures.

8.5.1.14 ADMISSION OF INSPECTOR TO THE FLIGHT DECK – COMMERCIAL AIR TRANSPORT

(a) Whenever, in performing the duties of conducting an inspection, an inspector from the Authority presents inspector's credentials to the PIC of an aircraft engaged in commercial air transport operations, the PIC shall give the inspector free and uninterrupted access to the flight deck of the aircraft.

8.5.1.15 DUTIES DURING CRITICAL PHASES OF FLIGHT: COMMERCIAL AIR TRANSPORT

(a) No flight crew member may perform any duties during a critical phase of flight except those required for the safe operation of the aircraft.

(b) No PIC may permit a flight crew member to engage in any activity during a critical phase of flight that could distract or interfere with the performance of his or her assigned duties.

8.5.1.16 MANIPULATION OF THE CONTROLS—COMMERCIAL AIR TRANSPORT

(a) No PIC may allow an unqualified person to manipulate the controls of an aircraft during commercial air transport operations.

(b) No person may manipulate the controls of an aircraft during commercial air transport operations unless he or she is qualified to perform the applicable crew member functions and is authorised by the AOC holder.

8.5.1.17 SIMULATED ABNORMAL SITUATIONS IN FLIGHT: COMMERCIAL AIR TRANSPORT

(a) No person may cause or engage in simulated abnormal or emergency situations or the simulation of IMC by artificial means during commercial air transport operations.

8.5.1.18 COMPLETION OF THE AIRCRAFT TECHNICAL LOG—COMMERCIAL AIR TRANSPORT AND AERIAL WORK

(a) The PIC shall ensure that all portions of the aircraft technical log are completed at the appropriate points before, during and after flight operations, including:

(1) The journey logbook; and

(2) The aircraft maintenance records section.

Note: Requirements for the journey logbook and maintenance records section of the aircraft technical log are prescribed in 9.4.1.5 and 9.5.1.9 of these regulations.

8.5.1.19 REPORTING MECHANICAL IRREGULARITIES

(a) Each PIC shall be responsible for reporting to the operator, at the termination of the flight, all known or suspected defects in the aeroplane.

(b) Each PIC shall be responsible for reporting to the operator, at the termination of the flight, all known or suspected defects in the helicopter.

8.5.1.20 REPORTING OF FACILITY AND NAVIGATION AID INADEQUACIES

(a) Each crew member shall report, without delay, any inadequacy or irregularity of a facility or navigational aid observed in the course of operations to the person responsible for that facility or navigational aid.

8.5.1.21 REPORTING OF HAZARDOUS CONDITIONS

(a) The PIC shall report to the appropriate ATC facility, without delay and with enough detail to be pertinent to the safety of other aircraft, any hazardous flight conditions encountered en-route, including those associated with meteorological conditions.

(b) The PIC shall report the runway braking action special air-report when the runway braking action encountered is not as good as reported.

Note: The procedures for making special air-reports regarding runway braking action are contained in ICAO Doc 4444, Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM), Chapter 4 and Appendix 1.

8.5.1.22 REPORTING OF INCIDENTS

(a) AIR TRAFFIC INCIDENT REPORT. The PIC shall submit, without delay, an air traffic incident report whenever an aircraft in flight has been endangered by:

(1) A near collision with another aircraft or object;

(2) Faulty air traffic procedures or a lack of compliance with applicable procedures by ATC or the flight crew; or

(3) A failure of ATC facilities.

(b) BIRDS. In the event a bird constitutes an in-flight hazard or an actual bird strike occurs, the PIC shall, without delay:

(1) Inform the appropriate ground station whenever a potential bird hazard is observed; and

(2) Submit a written bird strike report after landing.

(c) DANGEROUS GOODS. The PIC shall inform the appropriate ATC facility, if the situation permits, when an in-flight emergency occurs involving dangerous goods on board.

(d) UNLAWFUL INTERFERENCE. The PIC shall submit a report to the local authorities and to the Authority, without delay, following an act of unlawful interference with the crew members on board an aircraft.

8.5.1.23 ACCIDENT NOTIFICATION

(a) The PIC shall notify the nearest appropriate Authority, by the quickest available means, of any accident involving his or her aircraft that results in serious injury or death of any person, or substantial damage to the aircraft or property.

(b) The PIC shall submit a report to the Authority of any accident that occurred while he or she was responsible for the flight.

8.5.1.24 OPERATION OF COCKPIT VOICE AND FLIGHT DATA RECORDERS

(a) The PIC shall ensure that whenever an aircraft has flight recorders installed, those recorders are operationally checked and operated continuously from the instant:

(1) For an FDR, from the instant the aircraft begins its take-off roll until it has completed the landing roll; and

(2) For a CVR, from the initiation of the pre-start checklist until the end of the securing aircraft checklist.

(b) The PIC may not permit an FDR or a CVR to be disabled, switched off or erased during flight, unless necessary to preserve the data for an accident or incident investigation.

(c) In the event of an accident or incident, the PIC shall act to preserve the recorded data for subsequent investigation upon completion of flight.

Note: The ICAO Annex Standard is that a PIC shall not turn off the CVR/FDR in-flight. However, paragraph 8.5.1.24(b) of this subsection is in the regulations of many Contracting States to enable the PIC to stop the recording in order to prevent recording over an accident or incident that would otherwise be lost.

8.5.1.25 CREW MEMBER OXYGEN—MINIMUM SUPPLY AND USE

(a) The PIC shall ensure that breathing oxygen and masks are available to crew members in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of the faculties of crew members.

(b) In no case shall the minimum supply of oxygen on board the aircraft be less than that prescribed by the Authority in Part 7.

Note: The requirements for oxygen supply and use are prescribed in 7.9.1.13 of these regulations.

(c) The PIC shall ensure that all flight crew members, when engaged in performing duties essential to the safe operation of an aircraft in flight, use breathing oxygen continuously at cabin altitudes exceeding 3,000 m (10000 ft) for a period in excess of 30 minutes and whenever the cabin altitude exceeds 4,000 m (13000 ft).

(d) One pilot at the controls of a pressurised aircraft in flight shall wear and use an oxygen mask:

(1) For general aviation operations, at FLs above 350, if there is no other pilot at a pilot duty station; and

(2) For commercial air transport operations, at FLs above 250, if there is no other pilot at a pilot duty station, unless equipped with the crew oxygen masks that are of the quick-donning, inflatable harness type and are stowed in a container.

8.5.1.26 PORTABLE ELECTRONIC DEVICES

(a) No PIC or SCCM may permit any person to use, nor may any person use, on board an aircraft, a portable electronic device that may adversely affect the performance of aircraft systems and equipment unless:

(1) For IFR operations other than commercial air transport, the PIC allows such a device before its use; or

(2) For commercial air transport operations, the AOC holder makes a determination of acceptable devices and publishes that information in the OM for the crew members' use; and

(3) The PIC informs passengers of the permitted use.

8.5.1.27 CARRIAGE OF DANGEROUS GOODS

(a) No person shall carry dangerous goods in an aircraft registered in Curaçao or operated in Curaçao except:

(1) With the written permission of the Authority and subject to any condition the Authority may impose in granting such permission; and

(2) In accordance with ICAO Doc 9284, Technical Instructions for the Safe Transport of Dangerous Goods by Air, and any variations to those instructions that the Authority may from time to time mandate and provide notification of to ICAO.

8.5.1.28 MICROPHONES

(a) For AOC holders operating aircraft, a required flight crew member shall use a boom or throat microphone to communicate with another flight crew member and ATS below FL 100/10000 ft or the transition level/altitude, whichever is higher.

(b) For general aviation operations in an aeroplane, helicopter, or powered-lift aircraft, a required flight crew member shall use a boom or throat microphone to communicate with another flight crew member and ATS below FL 100/10000 ft or the transition level/altitude, whichever is higher.

(c) For aerial work operations, a required flight crew member shall use a boom or throat microphone to communicate with another flight crew member and ATS below FL 100/10000 ft or the transition level/altitude, whichever is higher, as applicable to the mission.

8.6 FLIGHT PLANNING AND SUPERVISION

8.6.1 GENERAL

8.6.1.1 SUBMISSION OF A FLIGHT PLAN

(a) Before operating one of the following, a pilot shall file a VFR or IFR flight plan, as applicable, for:

(1) Any flight (or portion thereof) to be provided with ATC service;

(2) Any IFR flight within advisory airspace;

(3) Any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate the provision of flight information, alerting and search and rescue services;

(4) Any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate co-ordination with appropriate military units or with ATC facilities in adjacent states in order to avoid the possible need for interception for the purpose of identification; and

(5) Any flight across international borders

(b) The PIC shall submit a flight plan to the appropriate ATC facility before departure or during flight, unless arrangements have been made for submission of repetitive flight plans

(c) Unless otherwise prescribed by the appropriate ATC Authority a pilot should submit a flight plan to the appropriate ATC facility:

(1) At least 60 minutes before departure; or

(2) If submitted during flight, at a time that will ensure its receipt by the appropriate ATC facility at least ten minutes before the aircraft is estimated to reach:

(i) The intended point of entry into a control area or advisory area; or

(ii) The point of crossing an airway or advisory route

8.6.1.2 AIR TRAFFIC CONTROL FLIGHT PLAN—COMMERCIAL AIR TRANSPORT

(a) No person may take-off an aircraft in commercial air transport if an ATC flight plan has not been filed, except as authorised by the Authority.

8.6.1.3 CONTENTS OF A FLIGHT PLAN

(a) Each person filing an IFR or VFR flight plan shall include in the flight plan the following information:

(1) Aircraft identification;

(2) Flight rules and type of flight;

(3) Number and type(s) of aircraft and wake turbulence category;

(4) Equipment;

(5) Departure aerodrome and alternate (if required);

(6) Estimated off-block time;

(7) Cruising speed(s);

(8) Cruising level(s);

(9) Route to be followed;

(10) En-route alternate aerodrome (if required);;

(11) Destination aerodrome and alternate(s) (if required);

(12) Fuel endurance;

(13) Total number of persons on board;

(14) Emergency and survival equipment; and

(15) Other information.

8.6.1.4 PLANNED RECLEARANCE

(a) If during flight planning a person determines that there is a possibility depending on fuel endurance that a flight may be able to change destinations and still comply with minimum fuel supply planning requirements, that person shall notify the appropriate ATC facility of this possibility when the flight plan is submitted.

Note: The intent of this provision is to facilitate a new clearance to a revised destination, normally beyond the filed destination aerodrome.

8.6.1.5 CHANGES TO A FLIGHT PLAN

(a) When a change occurs to a flight plan submitted for an IFR flight or a VFR flight operated as a controlled flight, the pilot shall report that change as soon as practicable to the appropriate ATC facility.

(b) For VFR flights other than those operated as a controlled flight, the PIC shall report significant changes to a flight plan as soon as practicable to the appropriate ATC facility.

Note: Information submitted before departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change and shall be reported.

8.6.1.6 CLOSING A FLIGHT PLAN

(a) The PIC shall make a report of arrival either in person or by radio to the appropriate ATC facility at the earliest possible moment after landing at the destination aerodrome, unless ATC automatically closes a flight plan.

(b) When a flight plan has been submitted for a portion of a flight, but not the arrival at destination, the pilot shall close that flight plan en-route with the appropriate ATC facility.

(c) When no ATC facility exists at the arrival aerodrome, the pilot shall contact the nearest ATC facility to close the flight plan as soon as practicable after landing and by the quickest means available.

(d) Pilots shall include the following elements of information in their arrival reports:

(1) Aircraft identification;

(2) Departure aerodrome;

(3) Destination aerodrome (only in the case of a diversionary landing);

(4) Arrival aerodrome; and

(5) Time of arrival.

8.6.2 FLIGHT PLANNING AND PREPARATION

8.6.2.1 AIRCRAFT AIRWORTHINESS AND SAFETY PRECAUTIONS

(a) The PIC may not operate a civil aircraft in flight until satisfied that:

(1) The aircraft is airworthy and duly registered and that appropriate certificates are aboard the aircraft;

(2) The instruments and equipment as prescribed in Part 7, are installed in the aircraft and are appropriate, taking into account the expected flight conditions; and

(3) Any necessary maintenance has been performed and an approval for return to service, if applicable, has been issued with respect to the aircraft.

(b) For commercial air transport operations, the PIC shall certify by signing the aircraft technical log that he or she is satisfied that the requirements of paragraph 8.6.2.1(a) of this subsection have been met for a particular flight.

8.6.2.2 ADEQUACY OF OPERATING FACILITIES

(a) No person may commence a flight unless it has been determined by every reasonable means available that the ground and/or water areas and facilities available and directly required for such flight and for the safe operation of the aircraft, are adequate, including communication facilities and navigation aids.

(b) An operator shall ensure that a flight will not commence or continue as planned unless it has been ascertained by every reasonable means available that the airspace containing the intended route from aerodrome of departure to aerodrome of arrival, including the intended take-off, destination, and en-route alternate aerodromes, can be safely used for the planned operation. When intending to operate over or near conflict zones, a risk assessment shall be conducted and appropriate risk mitigation measures taken to ensure a safe flight

(c) An operator shall ensure that any inadequacy of facilities observed in the course of operations is reported to the Authority responsible for those facilities, without undue delay.

(d) Subject to their published conditions of use, aerodromes and their facilities shall be kept continuously available for flight operations during their published hours of operations, irrespective of meteorological conditions.

(e) An operator shall, as part of its safety management system, assess the level of RFFS protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aeroplane intended to be used.

(f) Information related to the level of RFFS protection that is deemed acceptable by the operator shall be contained in the OM.

Note 1: "Reasonable means" denotes the use, at the point of departure or while the aircraft is in flight, of information available to the operator either through official information published by the Aeronautical Information Services or readily obtainable from other sources.

Note 2: ICAO Doc 10084, Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones, contains further guidance on risk assessment for air operators when flying over or near conflict zones.

Note 3: ICAO Annex 6, Part I, Attachment I, contains guidance on assessing an acceptable level of RFFS protection at aerodromes.

Note 4: It is not intended that this guidance limit or regulate the operation of an aerodrome. The assessment performed by the operator does not in any way affect the RFFS requirements of ICAO Annex 14, Volume I, for aerodromes.

Note 5: ICAO Annex 19 includes safety management provisions for air operators. Further guidance is contained in ICAO Doc 9859, Safety Management Manual (SMM).

8.6.2.3 METEOROLOGICAL REPORTS AND FORECASTS

(a) Before commencing a flight, the PIC shall be familiar with all available meteorological information appropriate to the intended flight.

(b) The PIC shall include, during preparation for a flight away from the vicinity of the place of departure, and for every flight under IFR:

(1) A study of available current meteorological reports and forecasts; and

(2) The planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned, because of meteorological conditions.

8.6.2.4 METEOROLOGICAL LIMITATIONS FOR VISUAL FLIGHT RULES FLIGHTS

(a) No person will commence a flight to be conducted in accordance with VFR unless available current meteorological reports, or a combination of current reports and forecasts, indicate that the meteorological conditions along the route, or that part of the route to be flown under VFR, will, at the appropriate time, allow VFR operations.

8.6.2.5 INSTRUMENT FLIGHT RULES DESTINATION AERODROMES

(a) No person may conduct an IFR flight unless:

(1) At the time of take-off, the meteorological conditions at the departure aerodrome are at or above the operator's established aerodrome operating minima for that operation; and

(2) At the time of take-off or point of in-flight re-planning, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions at the aerodrome of intended landing or at each alternate aerodrome will be, at the estimated time of use, at or above the operator's established aerodrome operating minima for that operation.

(3) The operator has been approved to specify appropriate incremental values for height of cloud base and visibility to be added to the operator's established heliport or landing location operating minima.

Note 1: A partial exception is granted for commercial air transport IFR flight planning, to the effect that the meteorological conditions at the destination do not have to be at or above the approach minima to release and commence a flight, as long as the designated alternate aerodrome meets the IFR meteorological selection criteria.

Note 2: A widely accepted time margin for "estimated time of use" is 1 hour before and after the earliest and latest time of arrival. Additional considerations can be found in ICAO Doc 9976, Flight Planning and Fuel Management Manual.

8.6.2.6 INSTRUMENT FLIGHT RULES DESTINATION ALTERNATE REQUIREMENT

(a) [AAC] No person may commence an IFR flight in an aeroplane without at least one destination alternate aerodrome listed in the flight plan unless:

(1) The duration of the flight from the departure aerodrome, or from the point of in-flight re-planning, to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use, a reasonable certainty exists:

(i) That, at the ETA at the aerodrome of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under VMC; and

(ii) Separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational IAP; or

(2) The aerodrome of intended landing is isolated and there is no suitable destination alternate aerodrome, and:

(i) There is a standard IAP prescribed for the aerodrome of intended landing by the jurisdictional authorities; and

(ii) A point of no return has been determined; and

(iii) A flight shall not be continued past the point of no return unless available current meteorological information indicates that the following meteorological conditions will exist at the estimated time of use:

(A) A cloud base of at least 600 m (2 000 ft) above the aerodrome elevation; and

(B) Visibility of at least 5.5 km (3 NM) or of 4 km (2 NM) more than the minimum associated with the IAP.

(b) [AOC] No person may commence an IFR flight in an aeroplane:

(1) without at least one destination alternate aerodrome listed in the flight plan unless:

(i) the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use there is a reasonable certainty that

(A) the approach and landing may be made under VMC and

(B) separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational IAP, or

(ii) The aerodrome of intended landing is isolated, and

(A) for each flight into an isolated aerodrome a point of no return shall be determined; and

(B) a flight to be conducted to an isolated aerodrome shall not be continued past the point of no return unless a current assessment of meteorological conditions, traffic, and other operational conditions indicate that a safe landing can be made at the estimated time of use; and

(C) The fuel requirements of paragraph 8.6.2.15(b)(4)(iv) of this part are met.

(2) without at least two destination alternate aerodromes listed in the operational and ATC flight plan when, for the destination aerodrome:

(i) meteorological conditions as at the estimated time of use will be below the operator's established aerodrome operating minima for that operation; or

(ii) meteorological information is not available.

Note 1: Separate runways are two or more runways at the same aerodrome configured such that if one runway is closed, operations to the other runway(s) can be conducted.

Note 2: ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, contains guidance on planning operations to isolated aerodromes.

(c) [AAC] No person may commence an IFR flight in a helicopter,

(1) where no alternate aerodrome is required unless,

(i) The operation is conducted as general aviation: and

(ii) Available current meteorological information indicates that the following meteorological conditions will exist from 2 hours before to 2 hours after the ETA:

(A) A cloud base of at least 300 m (1000 ft) above the aerodrome elevation, or at least 120 m (400 ft) above the lowest applicable approach minimum, whichever is higher; and

(B) Visibility of at least 3 km (2 SM).

Note: These may be considered as minimum values where a reliable and continuous meteorological watch is maintained. When only an "area" type forecast is available, these values may be increased accordingly.

(2) without at least one destination alternate heliport listed in the flight plan unless the available information indicates that conditions, at the heliport of intended landing and at least one alternate heliport will, at the ETA, be at or above the heliport operating minima.

(d) [AOC] No person may commence an IFR flight in a helicopter:

(1) without at least one destination alternate heliport or landing location listed in the flight plan, unless the available information indicates that conditions at the heliport of intended landing will, at the estimated time of arrival, be at or above the heliport operating minima;

(2) without at least two destination alternate heliports, forecast to be at or above the helicopter operating minima, listed in the operational and ATC flight plan when, at the time of flight departure, the intended heliport destination is forecast to be below the helicopter operating minima; or

(3) If the heliport of intended landing is isolated and no alternate heliport or landing location is available, in which case a point of no return shall be determined; or

(4) Unless the operator has been approved by the Authority to specify appropriate incremental values for height of cloud base and visibility to be added to the operator's established heliport or landing location operating minima.

(e) The ceiling and visibility requirements for operations conducted in accordance with paragraphs 8.6.2.6(a) through (d) of this subsection may be reduced upon approval of the Authority for:

(1) Other categories of aircraft, such as powered-lift, and airships; and

(2) Commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, that contains the following:

(i) Capabilities of the operator;

(ii) Overall capability of the aeroplane and its systems;

(iii) Available aerodrome technologies, capabilities and infrastructure;

(iv) Quality and reliability of meteorological information;

(v) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(vi) Specific mitigation measures.

Note: ICAO Doc 9859, Safety Management Manual (SMM), and ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, contain guidance on performing a safety risk assessment and determining variations, including examples of variations.

8.6.2.7 INSTRUMENT FLIGHT RULES ALTERNATE AERODROME SELECTION CRITERIA

(a) If alternate minimums are published, no PIC may designate an alternate aerodrome in an IFR flight plan unless the current available forecast indicates that the meteorological conditions at the ETA at that alternate will be at or above:

(1) [AAC] Those published alternate minima upon take-off from the departure aerodrome; or

(2) [AOC] The operator's established minima for that operation upon

(i) take-off from the departure aerodrome, or

(ii) the point of in-flight re-planning.

(b) If alternate minimums are not published, and if there is no prohibition against using the aerodrome as an IFR planning alternate, each PIC shall ensure that the meteorological conditions at the ETA at that alternate will be at or above:

(1) For aeroplanes:

(i) For a PA procedure, a ceiling of at least 180 m (600 ft) and visibility of not less than 3 km (2 SM); or

(ii) For a NPA procedure, a ceiling of at least 240 m (800 ft) and visibility of not less than 5 km (3 SM).

(2) For helicopters:

(i) A ceiling 60 m (200 ft) above the minimum for the approach to be flown, and visibility at least 1 SM but never less than the minimum visibility for the approach to be flown: or

(ii) If no IAP has been published and no IAP has been issued by the Authority to the operator, for the alternate airport, the ceiling and visibility minima are those allowing descent from the MEA, approach, and landing under basic VFR.

(c) The Planning Minima Table will be used in selecting IFR alternate aerodromes.

Planning Minima

(Ceiling & RVR/visibility required, if applicable)

Type of Approach	**Aerodrome with**	
	At least two separate approach procedures based on two separate aids serving two separate runways (see note below)	At least two separate approach procedures based on two separate aids serving one runway or at least one approach procedure based on one aid serving one runway
Precision Approach CAT I, III (ILS, MLS)	PA CAT I minima	NPA minima
Precision Approach CAT 1 (ILS, MLS)	NPA minima	Circling minima or, if not available, NPA minima plus 60 m (200 ft)/1 000 m (3 300 ft)
Non-Precision Approach	The lower of NPA minima plus 60 m (200 ft)/1 000 m (3 300 ft) or circling minima	The higher of NPA minima plus 60 m (200 ft)/1 000 m (3 300 ft) or circling minima
Circling Approach	Circling minima	Circling minima

Note: Runways on the same aerodrome are considered to be separate runways when they are separate landing surfaces that may overlay or cross, such that if one of the runways is blocked it will not prevent the

planned type of operations on the other runway, and each of the landing surfaces has a separate approach based on a separate aid.

8.6.2.8 OFFSHORE ALTERNATES FOR HELICOPTER OPERATIONS

(a) No person may designate an offshore alternate landing site:

(1) when it is possible to carry enough fuel to have an on-shore alternate landing site, or

(2) when the environment around the offshore alternate is hostile.

Note: The selection of offshore alternates may be exceptional cases, the details of which have been approved by the Authority, and may not include payload enhancement in IMC.

(b) Each person selecting an off-shore alternate landing site shall consider the following:

(1) Until the point of no return, using an on-shore alternate. The offshore alternate may be used only after a point of no return.

(2) Attaining one engine inoperative performance capability before arrival at the alternate.

(3) Guaranteeing helideck availability.

(4) The meteorological information at the helideck shall be available from a source approved by the Authority.

(5) For IFR operations, an IAP shall be prescribed and available.

(6) Attaining mechanical reliability of critical control systems and critical components when determining the suitability of the alternate.

Note: The landing technique specified in the flight manual following control system failure may preclude the selection of certain helidecks as alternate aerodromes. The mechanical reliability of critical control systems shall be taken into account when determining the suitability of and necessity for an offshore alternate.

8.6.2.9 TAKE-OFF ALTERNATE AERODROMES—COMMERCIAL AIR TRANSPORT OPERATIONS

(a) No person may release or take-off an aeroplane without a suitable take-off alternate specified in the flight plan if either:

(1) it would not be possible to return to the aerodrome of departure, or

(2) meteorological conditions at the aerodrome of departure are below the operator's established aerodrome landing minima for that operation.

(b) Each operator shall ensure that each take-off alternate specified shall be located within the following flight time from the aerodrome of departure:

(1) For aeroplanes with two engines, 1 hour flight time at a one-engine-inoperative cruising speed, determined from the Aircraft Operating Manual, calculated in ISA and still-air conditions using the actual take-off mass; or

(2) For aeroplanes with three or more engines, 2 hours flight time at an all engines operating cruising speed, determined from the Aircraft Operating Manual, calculated in ISA and still-air conditions using the actual take-off mass; or

(3) For aeroplanes engaged in EDTO where an alternate aerodrome meeting the distance criteria of paragraph 8.6.2.9(b)(1) or (2) of this subsection is not available, the first available alternate aerodrome located within the distance of the operator's specified maximum diversion time considering the actual take-off mass.

(c) The ceiling and visibility requirements for operations conducted in accordance with paragraphs 8.6.2.9 (a) and (b) of this subsection may be reduced upon approval of the Authority for:

(1) Commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, that contains the following:

(i) Capabilities of the operator;

(ii) Overall capability of the aeroplane and its systems;

(iii) Available aerodrome technologies, capabilities and infrastructure;

(iv) Quality and reliability of meteorological information;

(v) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(vi) Specific mitigation measures.

Note: ICAO Doc 9859, Safety Management Manual, and ICAO Doc 9976, Flight Planning and Fuel Management Manual, contain guidance on performing a safety risk assessment and on determining variations, including examples of variations.

8.6.2.10 MAXIMUM DISTANCE FROM AN ADEQUATE AERODROME FOR AEROPLANES WITHOUT AN EXTENDED DIVERSION TIME OPERATIONS –[AOC]

(d) Unless the State of the Operator has issued a specific approval for EDTO, an AOC holder shall not operate an aeroplane with two or more engines over a route that contains a point further from an adequate aerodrome than, in the case of:

(1) Turbine-powered aeroplanes, the distance flown in 60 minutes at the one-engine-inoperative cruise speed determined in accordance with paragraph 8.6.2.10(b) of this subsection; or

(2) Piston-engined aeroplanes:

(i) The distance flown in 120 minutes at the one-engine-inoperative cruise speed determined in accordance with paragraph 8.6.2.10(b) of this subsection; or

(ii) 555 km (300 NM), whichever is less.

(e) An AOC holder shall determine a speed for the calculation of the maximum distance to an adequate aerodrome for each aeroplane with two or more engines operating, not exceeding Vmo based upon the true airspeed that the aeroplane can maintain with one engine inoperative under the following conditions:

(1) International Standard Atmosphere;

(2) Level flight:

(i) For turbine-powered aeroplanes at:

(A) FL 170; or

(B) The maximum FL to which the aeroplane, with one engine inoperative, can climb and maintain, using the gross rate of climb specified in the Aircraft Flight Manual, whichever is less.

(ii) For reciprocating-engine aeroplanes, at:

(A) FL 80; or

(B) The maximum FL to which the aeroplane, with one engine inoperative, can climb and maintain, using the gross rate of climb specified in the Aircraft Flight Manual, whichever is less.

(3) Maximum continuous thrust or power on the remaining operating engine;

(4) An aeroplane mass not less than that resulting from:

(i) Take-off at sea level at maximum certificated take-off mass until the time elapsed since take-off is equal to the applicable threshold prescribed in paragraph 8.6.2.10(a) of this subsection;

(ii) All engines climb to the optimum long range cruise altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in subparagraph 8.6.2.10(a) of this subsection; and

(iii) All engines cruise at the long range cruise speed at this altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in paragraph 8.6.2.10(a) of this subsection.

(f) An AOC holder shall ensure that the following data, specific to each type or variant, is included in the OM:

(1) The one-engine-inoperative cruise speed determined in accordance with paragraph 8.6.2.10(b) of this subsection; and

(1) The maximum distance from an adequate aerodrome determined in accordance with paragraphs 8.6.2.10(a) and (b) of this subsection.

Note: The speeds and altitudes (FLs) specified above are only intended to be used for establishing the maximum distance from an adequate aerodrome.

8.6.2.11 REQUIREMENTS FOR EXTENDED DIVERSION TIME OPERATIONS - AEROPLANES [AOC]

(a) An AOC holder shall not conduct operations beyond the threshold distance determined in accordance with Subsection 8.6.2.10 of this part unless approved to do so by the Authority. The specific approval shall identify the applicable threshold time established for each particular aeroplane and engine combination.

(b) In requesting EDTO approval, each AOC holder shall show to the satisfaction of the Authority that:

(1) FOR AEROPLANES:

(i) For all aeroplanes,

(A) the most limiting EDTO significant system time limitation, if any indicated in the Aircraft Flight Manual (directly or by reference) and relevant to that particular operation is not exceeded; and

(B) the additional fuel required by Subsection 8.6.2.15 shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by the Authority.

(ii) For aeroplanes with two turbine engines, the aeroplane is EDTO certified and the Authority has verified the:

(A) Reliability of the propulsion system;

(B) Airworthiness certification for EDTO of the aeroplane type; and

(C) EDTO maintenance programme; and

(D) Maintenance control manual or EDTO manual.

(2) It has conducted a safety risk assessment which demonstrates how an equivalent level of safety will be maintained, taking into account the following:

(i) Capabilities of the operator;

(ii) Overall reliability of the aeroplane;

(iii) Reliability of each time-limited system;

(iv) Relevant information from the aeroplane manufacturer; and

(v) Specific mitigation measures.

(c) Before conducting an EDTO flight, an AOC holder shall ensure that a suitable EDTO en-route alternate is available, within either the approved diversion time or a diversion time based on MEL-generated serviceability status of the aeroplane whichever is shorter.

(d) No AOC holder shall commence a flight unless, during the possible period of arrival, the required en-route alternate aerodrome will be available and the available information indicates that conditions at the aerodrome will be at or above the aerodrome operating minima approved for the operation.

(e) No AOC holder shall conduct operations beyond 60 minutes, from a point on a route to an en-route alternate aerodrome unless it ensures that:

(1) For all aeroplanes;

(i) En-route alternate aerodromes are identified; and

(ii) The most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;

(2) For aeroplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at identified en-route alternate aerodromes will be at or above the operator's established aerodrome operating minima for the operation at the estimated time of use; and

(3) these requirements are incorporated into the operators:

(i) operational control and flight dispatch procedures;

(ii) operating procedures; and

(iii) training programmes.

(f) No AOC Holder shall proceed beyond the threshold time approved by the Authority unless:

(1) the identified en-route alternate aerodromes have been re-evaluated for availability; and

(2) the most up to date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator's established aerodrome operating minima for that operation; or.

(3) conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use and an alternative course of action has been determined.

Note 1: Guidance on the establishment of an appropriate threshold time and on specific approval of EDTOs is contained in ICAO Annex 6, Part I, Attachment C, and in ICAO Doc 10085, Extended Diversion Time Operations Manual.

Note 2: FAA AC 120-42B (as amended), Extended Operations (ETOPS and Polar Operations), provides additional guidance.

8.6.2.12 EN-ROUTE ALTERNATE AERODROMES— EXTENDED DIVERSION TIME OPERATIONS [AOC]

(a) The PIC shall ensure that the required route alternate aerodromes for EDTO are selected and specified in ATC flight plans in accordance with the EDTO diversion time approved by the Authority.

(b) No person shall select an aerodrome as an EDTO en-route alternate aerodrome unless the appropriate weather reports or forecasts, or any combination thereof, indicate that during a period commencing 1 hour before and ending 1 hour after the expected time of arrival at the aerodrome, the weather conditions will be at or above the planning minima prescribed in the table below, and in accordance with the operator's EDTO approval.

(c) The ceiling and visibility requirements for operations conducted in accordance with paragraphs 8.6.2.12(a) and (b) of this subsection may be reduced upon approval of the Authority for:

(1) Commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, that contains the following:

(i) Capabilities of the operator;

(ii) Overall capability of the aeroplane and its systems;

(iii) Available aerodrome technologies, capabilities and infrastructure;

(iv) Quality and reliability of meteorological information;

(v) Identified hazards and safety risks associated with each alternate aerodrome variation; and

(vi) Specific mitigation measures.

Note 1: ICAO Doc 9859, Safety Management Manual (SMM), and ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, provide guidance on performing a safety risk assessment and on determining variations, including examples of variations.

Note 2: The forecast weather criteria used in the selection of alternate aerodromes for IFR flight will also be used for the selection of EDTO alternates.

8.6.2.13 FUEL, OIL, AND OXYGEN PLANNING AND CONTINGENCY FACTORS

(a) No person may commence a flight unless he or she takes into account the fuel, oil, and oxygen needed to ensure the safe completion of the flight, including any reserves to be carried for contingencies.

(b) For aeroplanes in AOC operations, the amount of usable fuel to be carried shall, as a minimum, be based on:

(1) The following data:

(i) Current aeroplane-specific data derived from a fuel consumption monitoring system, if available; or

(ii) If current aeroplane-specific data is not available, data provided by the aeroplane manufacturer, and

(2) The operating conditions for the planned flight including:

(i) Anticipated aeroplane mass;

(ii) NOTAMs;

(iii) Current meteorological reports or a combination of current reports and forecasts;

(iv) ATC procedures, restrictions and anticipated delays; and

(v) The effects of deferred maintenance items and/or configuration deviations; and

(vi) Any other conditions that may delay the landing of the aeroplane or increase fuel, oil and/or oxygen consumption.

(c) The pre-flight calculation of usable fuel required shall include:

(1) TAXI FUEL. Which shall be the amount of fuel expected to be consumed before take-off, taking into account local conditions at the departure aerodrome and APU fuel consumption;

(2) TRIP FUEL. Which shall be the amount of fuel required to enable the aeroplane to fly from take-off until landing at the destination aerodrome, taking into account the operating conditions in paragraph 8.6.2.13(b)(2) of this subsection;

(3) CONTINGENCY FUEL. Which shall be the amount of fuel required to compensate for unforeseen factors. It shall not be less than 5 per cent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel but, in any case, shall not be lower than the amount required to fly for 5 minutes at holding speed at 450 m (1 500 ft) above the destination aerodrome in standard conditions;

Note: Unforeseen factors are those factors that could have an influence on the fuel consumption to the destination aerodrome, such as deviations of an individual aeroplane from the expected fuel consumption data, deviations from forecast meteorological conditions, extended delays, and deviations from planned routings and/or cruising levels.

(4) DESTINATION ALTERNATE FUEL. Which shall be:

(i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to:

(A) Perform a missed approach at the destination aerodrome;

(B) Climb to the expected cruising altitude;

(C) Fly the expected routing;

(D) Descend to the point where the expected approach is initiated; and

(E) Conduct the approach and landing at the destination alternate aerodrome; or

(ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in 8.6.2.13(c)(4)(i), required to enable the aeroplane to proceed to the destination alternate aerodrome which requires the greater amount of alternate fuel; or

(iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the aeroplane to fly for 15 minutes at holding speed at 450 m (1 500 ft) above destination aerodrome elevation in standard conditions; or

(iv) Where the aerodrome of intended landing is an isolated aerodrome:

(A) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or 2 hours, whichever is less; or

(B) For a turbine-engined aeroplane, the amount of fuel required to fly for 2 hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;

(5) FINAL RESERVE FUEL. Which shall be the amount of fuel on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required:

(i) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes; or

(ii) For a turbine-engined aeroplane, the amount of fuel required to fly for 30 minutes at holding speed at 450 m (1 500 ft) above aerodrome elevation in standard conditions;

(6) ADDITIONAL FUEL. Which shall be the supplementary amount of fuel required to enable the aeroplane to descend as necessary and proceed to land at an alternate aerodrome in the event of engine failure or loss of pressurization based on the assumption that such a failure occurs at the most critical point along the route; and

(7) DISCRETIONARY FUEL. Which shall be the extra amount of fuel to be carried at the discretion of the PIC.

(d) Operators shall determine one final reserve fuel value for each aeroplane type and variant in their fleet rounded up to an easily recalled figure.

(e) The use of fuel after flight commencement for purposes other than originally intended during pre-flight planning shall require a re-analysis and, if applicable, an adjustment of the planned operation.

Note: Nothing in this subsection precludes the in-flight amendment of a flight plan to re-plan that flight to another aerodrome, provided the requirements of this subsection can be complied with from the point where the flight is re-planned.

(f) For helicopters, each person computing the required minimum fuel and oil supply shall ensure that additional fuel and oil are carried to provide for the increased consumption that would result from any additional operating conditions in paragraph 8.6.2.13(b)(2) of this subsection, as applied to helicopters, and any of the following contingencies:

(1) Expected winds or other meteorological conditions;

(2) Possible variations in ATC routings

(3) Anticipated traffic delays;

(4) A complete IAP and possible missed approach at destination;

(5) Loss of pressurization en-route, if applicable;

(6) Loss of one power-unit en-route; and

(7) Any other conditions that may delay the landing of the helicopter or increase fuel, oil and/or oxygen (if applicable) consumption.

(g) IN-FLIGHT FUEL MANAGEMENT. The PIC shall:

(1) Continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome/heliport where a safe landing can be made with the planned final reserve fuel remaining upon landing;

(2) Request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome/heliport with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome/heliport;

(3) Advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome/heliport may result in landing with less than the planned final reserve fuel; and

(4) Declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome/heliport where a safe landing can be made is less than the planned final reserve fuel.

Note 1: The protection of final reserve fuel is intended to ensure a safe landing at any aerodrome when unforeseen occurrences may not permit safe completion of an operation as originally planned. Guidance on flight planning, including the circumstances that may require re-analysis, adjustment, and/or re-planning of the planned operation before take-off or en-route, is contained in ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual.

Note 2: The declaration of MINIMUM FUEL informs ATC that all planned landing site options have been reduced to a specific landing site of intended landing, that no precautionary landing site is available, and that any change to the existing clearance, or any air traffic delays, may result in landing with less than the planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delay occur.

Note 3: A precautionary landing site refers to a landing site, other than the site of intended landing, where it is expected that a safe landing can be made prior to the consumption of the planned final reserve fuel.

Note 4: The planned final reserve fuel refers to the value calculated in paragraph 8.6.2.13(c)(5) of this subsection and is the minimum amount of fuel required upon landing at any landing site. The declaration of MAYDAY MAYDAY MAYDAY FUEL informs ATC that all available landing options have been reduced to a specific site and a portion of the final reserve fuel may be consumed prior to landing.

Note 5: The pilot estimates with reasonable certainty that the fuel remaining upon landing at the nearest safe landing site will be less than the final reserve fuel taking into consideration the latest information available to the pilot, the area to be overflown (i.e., with respect to the availability of precautionary landing areas), meteorological conditions, and other reasonable contingencies.

Note 6: The words "MAYDAY FUEL" describe the nature of the distress conditions as required in ICAO Annex 10, Volume II: 5.3.2.1.1(b)(3).

(h) When conducting operations beyond 60 minutes from a point on a route to an en-route alternate aerodrome, each operator shall ensure that:

(1) En-route alternate aerodromes are identified; and

(2) The PIC has access to current information on the identified en-route alternate aerodromes, including operational status and meteorological conditions.

8.6.2.14 MINIMUM FUEL REQUIREMENTS FOR VISUAL FLIGHT RULES FLIGHTS

(a) [AAC] AEROPLANES. No person may commence a flight in an aeroplane under VFR unless, considering the wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed:

(1) For flights during the day, for at least 30 minutes thereafter;

(2) For flights during the night, for at least 45 minutes thereafter, and

(b) [AAC] HELICOPTERS. No person may commence a flight in a helicopter under VFR unless, considering the wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed:

(1) For 20 minutes thereafter; and

(2) Have an additional amount of fuel sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator to the satisfaction of the Authority.

8.6.2.15 MINIMUM REQUIREMENTS FOR INSTRUMENT FLIGHT RULES FLIGHTS

(a) [AAC] AEROPLANES. No person may commence a flight under IFR unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to:

(1) When a destination alternate aerodrome is required, fly from the aerodrome of intended landing to an alternate aerodrome, and after that, for at least 45 minutes at normal cruising altitude;

(2) When a destination alternate aerodrome is not required, fly to the aerodrome of intended landing and after that for at least 45 minutes at normal cruising altitude.

(b) [AOC] AEROPLANES. No person may commence a flight under IFR, or continue past the point of in-flight re-planning, unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to include the following:

(1) TAXI FUEL – which shall be the amount of fuel expected to be consumed before take-off taking into account local conditions at the departure aerodrome and APU fuel consumption;

(2) TRIP FUEL – which shall be the amount of fuel required to enable the aeroplane to fly from take-off, or the point of in-flight re-planning, until landing at the destination aerodrome taking into account the operating conditions in the data provided by the manufacturer;

(3) CONTINGENCY FUEL – which shall be the amount of fuel required to compensate for unforeseen factors. It shall be 5 per cent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel, but

in any case, shall not be lower than the amount required to fly for 5 minutes at holding speed at 450 m (1500 ft) above the destination aerodrome in standard conditions;

(4) DESTINATION ALTERNATE FUEL – which shall be:

(i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to:

(A) Perform a missed approach at the destination aerodrome;

(B) Climb to the expected cruising altitude;

(C) Fly the expecting routing;

(D) Descend to the point where the expected approach is initiated; and

(E) Conduct the approach and landing at the destination alternate aerodrome;

(ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in paragraph 8.6.2.15(4)(i) of this subsection, required to enable the aeroplane to proceed to the destination alternate aerodrome that requires the greater amount of alternate fuel; or

(iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the aeroplane to fly for 15 minutes at holding speed at 450 m (1500 ft) above destination aerodrome elevation in standard conditions; or

(iv) Where the aerodrome of intended landing is an isolated aerodrome:

(A) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or two hours, whichever is less; or

(B) For a turbine-engined aeroplane, the amount of fuel required to fly for 2 hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;

(5) FINAL RESERVE FUEL – which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required, or a pre-calculated value for each aeroplane type and variant in the fleet rounded up to an easily recalled figure:

(i) For a reciprocating-engine aeroplane, the amount of fuel required to fly for 45 minutes, under speed and altitude conditions specified by the Authority; or

(ii) For a turbine-engined aeroplane, the amount of fuel required to fly for 30 minutes at holding speed at 450 m (1500 ft) above aerodrome elevation in standard conditions;

(6) ADDITIONAL FUEL – which shall be the supplementary amount of fuel required if the minimum fuel calculated in accordance with trip fuel, contingency fuel, destination alternate fuel and final reserve fuel above is not sufficient to:

(i) Allow the aeroplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss or of pressurization, whichever requires the greater amount of fuel based on the assumption that such a failure occurs at the most critical point along the route:

(A) To fly for 15 minutes at holding speed at 450 m (1500 ft) above the aerodrome elevation in standard conditions; and

(B) Make an approach and landing;

(C) Allow an aeroplane engaged in EDTO to comply with the EDTO critical fuel scenario as established by the Authority; and

(D) Meet additional requirements not covered above.

Note: Fuel planning for a failure that occurs at the most critical point along a route may place the aeroplane in a fuel emergency situation.

(7) DISCRETIONARY FUEL – Which shall be the extra amount of fuel to be carried at the discretion of the PIC, or

(8) Notwithstanding the provisions in paragraphs 8.6.2.15(b)(1) through (7) of this subsection the Authority may approve a variation to these requirements provided the operator can demonstrate an equivalent level of safety will be maintained through a safety risk assessment that includes at least the following:

(i) Flight fuel calculations;

(ii) Capabilities of the operator to include:

(A) A data-driven method that includes a fuel consumption monitoring programme; and/or

(B) The advanced use of alternate aerodromes; and

(C) Specific mitigation measures.

Note: ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual, contains guidance on the specific safety risk assessment, fuel consumption monitoring programmes, and the advanced use of alternate aerodromes.

(c) [AAC] Helicopters. No person may commence a flight under IFR unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to:

(1) When a destination alternate is required,

(i) Fly to and execute an approach, and a missed approach, at the heliport to which the flight is planned, and thereafter

(ii) fly for 30 minutes at a holding speed at 450 m (1500 ft) above the alternate under standard temperature conditions, and approach and land; and

(iii) have a reserve for contingencies specified by the operator and approved by the Authority.

(2) When a destination alternate is not required, to fly to the heliport to which the flight is planned and thereafter:

(i) fly for 30 minutes at a holding speed at 450 m (1500 ft) above the alternate under standard temperature conditions, and approach and land; and

(ii) have a reserve for contingencies specified by the operator and approved by the Authority.

8.6.2.16 FLIGHT PLANNING DOCUMENT DISTRIBUTION AND RETENTION—COMMERCIAL AIR TRANSPORT

(a) For commercial air transport operations, the PIC shall complete and sign the following flight preparation documents before departure:

(1) An operational flight plan, including NOTAMs and weather pertinent to the flight planning decisions regarding minimum fuel supply, en-route performance, and destination and alternate aerodromes

(2) A load manifest, showing the distribution of the load, the CG, take-off and landing mass and compliance with maximum operating mass limitations, and performance analysis; and

(3) An applicable aircraft technical log page, if mechanical irregularities were entered after a previous flight, maintenance or inspection functions were performed or an approval for return to service was issued at the departure aerodrome.

(b) No person may take-off an aircraft in commercial air transport unless all flight release documents, signed by the PIC, are retained and available at the point of departure.

(c) The PIC shall carry on the aircraft, to the destination aerodrome, a copy of the documents specified in paragraph 8.6.2.16(a) of this subsection.

(d) Completed flight preparation documents shall be kept by the AOC holder for a period of 3 months.

Note 1: The Authority may approve a different retention location where all documents can be available for subsequent review.

Note 2: The requirements for flight plans are contained in ICAO Annex 2 and ICAO Doc 4444, Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM).

8.6.2.17 AIRCRAFT LOADING, MASS AND BALANCE

(a) No person may operate an aircraft unless all loads carried are properly distributed and safely secured.

(b) No person may operate an aircraft unless the calculations for the mass of the aeroplane the CG location indicate that the flight can be conducted safely, taking into account the flight conditions expected.

Note: When load masters, load planners or other qualified personnel are provided by the AOC holder in a commercial air transport operation, the PIC may delegate these responsibilities, but shall ascertain that proper loading procedures are followed.

(c) For commercial air transport operations, no PIC may commence a flight unless the PIC is satisfied that the loading and mass and balance calculations contained in the load manifest are accurate and comply with the aircraft limitations.

8.6.2.18 MAXIMUM ALLOWABLE MASS TO BE CONSIDERED ON ALL LOAD MANIFESTS

(a) The PIC shall ensure that the maximum allowable mass for a flight does not exceed the maximum allowable take-off mass:

(1) For the specific runway and conditions existing at the take-off time; and

(2) Considering anticipated fuel and oil consumption that allows compliance with applicable en-route performance, landing mass, and landing distance limitations for destination and alternate aerodromes.

8.6.2.19 FLIGHT RELEASE REQUIRED—COMMERCIAL AIR TRANSPORT

(a) No person may start a flight under a flight following system without specific authority from the person authorised by the AOC holder to exercise operational control over the flight.

(b) No person may commence a passenger-carrying flight in commercial air transport unless a qualified person authorised by the AOC holder to perform operational control functions has issued a flight release for that specific operation or series of operations.

8.6.2.20 OPERATIONAL FLIGHT PLAN—COMMERCIAL AIR TRANSPORT

(a) No person may commence a flight unless the operational flight plan has been signed by the PIC.

(b) A PIC may sign the operational flight plan only when the PIC and the person authorised by the operator to exercise operational control have determined that the flight can be safely completed.

Note: The operational flight plan shall include the routing and fuel calculations, with respect to the meteorological and other factors expected, to complete the flight to the destination and all required alternates.

(c) The PIC signing the operational flight plan shall have access to the applicable flight planning information for fuel supply, alternate aerodromes, weather reports and forecasts and NOTAMs for the route and aerodrome.

(d) No person may continue a flight from an intermediate aerodrome without a new operational flight plan if the aircraft has been on the ground for more than 6 hours.

8.6.2.21 TIME CAPABILITY OF CARGO COMPARTMENT FIRE SUPPRESSION SYSTEM

(a) No person may plan a flight if the diversion time to an aerodrome where a safe landing could be made exceeds the cargo compartment fire suppression time capability of the aeroplane, when one is identified in the relevant aeroplane documentation, unless the Authority specifies a reduction of the operational safety margin.

Note 1: Cargo compartment fire suppression time capabilities will be identified in the relevant aeroplane documentation when they are to be considered for the operation.

Note 2: Fifteen minutes is an operational safety margin commonly retained for that purpose.

Note 3: Refer to ICAO Annex 6, Part I: 4.7 and Attachment B, for considerations of time capability of cargo compartment fire suppression systems for aeroplanes engaged in EDTO.

8.7 AIRCRAFT OPERATING AND PERFORMANCE LIMITATIONS

8.7.1 ALL AIRCRAFT

8.7.1.1 APPLICABILITY

(a) This Section prescribes the operating and performance limitations for all civil aircraft.

8.7.1.2 GENERAL

(a) No person may operate an aircraft that:

(1) Exceeds its designed performance limitations for any operation, as established by the State of Registry;

(2) Exceeds the operating limitations contained in the Aircraft Flight Manual, or its equivalent;

(3) Exceeds the terms of its certificate of airworthiness; or

(4) Exceeds the mass limitations, if applicable, imposed by the terms of its noise certification standards, as contained in the applicable part of ICAO Annex 16, Volume I, unless otherwise approved by the Authority.

8.7.1.3 AIRCRAFT PERFORMANCE CALCULATIONS

(a) Each operator shall ensure that the performance data contained in the Aircraft Flight Manual, Rotorcraft Flight Manual, or other authorised source is used to determine compliance with the appropriate requirements of 8.7 of this part.

(b) When applying performance data, each person performing calculations shall account for all factors that significantly affect the performance of the aircraft configuration, including, but not limited to, the:

(1) Mass of the aeroplane;

(2) Operating procedures;

(3) Pressure-altitude appropriate to the elevation of the aerodrome;

(4) Runway slope;

(5) Ambient temperature;

(6) Wind;

(7) Surface conditions of the runway at the expected time of use (e.g., the presence of snow, slush, water and/or ice for landplanes, water surface condition for seaplanes); and

(8) Operation of any system or systems that may have an adverse effect on performance.

(c) The factors described in paragraph 8.7.1.3(b) of this subsection shall be taken into account directly as operations parameters or indirectly by means of allowances or margins, that may be provided in the design performance limits or in the terms of the AOC in accordance with which the aeroplane is being operated.

Note 1: The code of performance reflects, for the conduct of operations, both the various phases of flight and the operational environment. ICAO Doc 10110, Helicopter Code of Performance Development Manual, provides guidance to assist States in establishing a code of performance.

Note 2: Guidelines for using runway surface condition information on board aircraft are contained in ICAO Doc 9981, Procedures for Air Navigation Services – Aerodromes (PANS-Aerodromes), and ICAO Doc 10064, Aeroplane Performance Manual.

8.7.1.4 GENERAL MASS AND OBSTRUCTION CLEARANCE LIMITATIONS

(a) No person may take-off an aircraft without ensuring that the maximum allowable mass for a flight does not exceed the maximum allowable take-off or landing mass, or any applicable en-route performance or landing distance limitations considering the:

(1) Condition of the take-off and landing areas to be used;

(2) Gradient of runway to be used (landplanes only);

(3) Pressure altitude;

(4) Ambient temperature;

(5) Current and forecast winds; and

(6) Any known conditions (e.g., atmospheric and aircraft configuration) that may adversely affect aircraft performance, or compliance with noise certification standards if required.

(b) No person may take-off an aircraft at a mass that, assuming normal engine operation, cannot safely clear all obstacles during all phases of flight, including all points along the intended en-route path or any planned diversions.

8.7.2 AIRCRAFT USED IN COMMERCIAL AIR TRANSPORT

8.7.2.1 APPLICABILITY

(a) This Section prescribes aircraft performance and operating limitations for aircraft used in commercial air transport operations, except for those used by air transport operators holding a special authorization or waiver granted by the Authority, that exempts the aircraft from specific operating and performance limitations.

8.7.2.2 GENERAL

(a) Each person operating an aircraft engaged in commercial air transport shall comply with the provisions of Section 8.7.2. of this part.

(b) Each person operating a rotorcraft identified as Class 1, 2, or 3 in international commercial air transport shall comply with the code of performance prescribed in IS: 8.7.2.2(B).

(c) The Authority may grant exemptions in accordance with Part 1 of these regulations, from the requirements of Section 8.7.2 of this part if special circumstances make a literal observance of a requirement unnecessary for safety.

(d) Where full compliance with the requirements of Section 8.7.2 of this part cannot be shown due to specific design characteristics (e.g., seaplanes, airships, or supersonic aircraft), the operator shall apply approved performance standards that ensure a level of safety not less restrictive than those of relevant requirements of this Section.

(e) No person may operate in revenue passenger-carrying a single-engine aircraft or an aircraft type certificated for operation by a single pilot unless that aircraft is continually operated in daylight, VFR, excluding over-the-top, and over routes and diversions therefrom that permit a safe forced landing to be executed in the event of an engine failure.

(1) Notwithstanding Subsection 8.7.2.2(e) of this subsection, the Authority may approve single-pilot operations in propeller driven, turbine-powered aircraft under IFR, at night, or under IMC for aircraft with a maximum certificated take-off mass of 5 700 kg (12 566 lb) or less and a maximum approved passenger seating configuration of nine or less, provided it meets the equipment requirements of Part 7 of these regulations.

(2) Notwithstanding paragraph 8.7.2.2(e)(1) of this subsection, the Authority may approve single-pilot operations in propeller-driven, turbine-powered aircraft under IFR, at night, or under IMC for aircraft with a maximum certificated take-off mass of 5 700 kg (12 566 lb) or less with a passenger seating configuration of more than 9 passengers if the aircraft is type certificated for operations by a single pilot, provided it meets the equipment requirements of Part 7 of these regulations and the Authority has authorised an exemption from paragraph 8.7.2.2(e)(1) of this subsection in the operator's operations specifications. If such operations are to be conducted outside Curacao, the State shall have an arrangement with the States where operations will be conducted.

Note: Subsection 8.7.2.2(e)(2) of this subsection is not currently in compliance with ICAO Annex 6, Part I: 4.9.1, but is included here at the request of States that operate aircraft with a passenger seating configuration of 14. ICAO is giving consideration to changing the passenger seating configuration requirements of nine or less in propeller-driven aircraft.

(f) No person may operate a multi-engine aircraft in revenue passenger-carrying operations that is unable to comply with any of the performance limitations prescribed in 8.7.2.5 through 8.7.2.9 of this part unless that aircraft is continually operated:

(1) In daylight;

(2) VFR, excluding over-the-top operations; and

(3) At a mass that will allow it to climb, with the critical engine inoperative, at least 15 m (50 ft) a minute when operating at the MEAs of the intended route or any planned diversion, or at 1500 m (5,000 ft) MSL, whichever is higher.

(g) Multiengine aircraft that are unable to comply with paragraph 8.7.2.2(f) of this subsection are, for the purpose of this section, considered to be single-engine aircraft and shall comply with the requirements of paragraph 8.7.2.2(e) of this subsection.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.1.1 and 3.2.2.1, provides additional guidance.

8.7.2.3 SINGLE AND MULTI-ENGINE AEROPLANE OPERATIONS

(a) No person may operate a single-engine aeroplane in revenue passenger-carrying operations unless that aeroplane is continually operated in daylight, VFR, and over such routes and diversions therefrom that permit a safe forced landing to be executed in the event of an engine failure.

(1) Notwithstanding paragraph 8.7.2.3(a) of this subsection, the Authority may approve single-engine operations in propeller-driven, turbine-powered aeroplanes under IFR, at night, or under IMC for aeroplanes with a maximum certificated take-off mass of 5 700 kg (12 566 lb)

or less and a maximum approved passenger seating configuration of nine or less, provided it meets the equipment requirements of Part 7 of these regulations.

(2) Notwithstanding paragraph 8.7.2.3(a)(1) of this subsection, the Authority may approve single-engine operations in propeller-driven, turbine-powered aeroplanes under IFR, at night, or under IMC for aeroplanes with a maximum certificated take-off mass of 5 700 kg (12 566 lb) or less with a passenger seating configuration of more than nine passengers if the aeroplane is type certificated for operations by a single pilot, provided it meets the equipment requirements of Part 7 of these regulations and the Authority has authorised an exemption from paragraph 8.7.2.3(a)(1) of this subsection in the operator's operations specifications. If such operations are to be conducted outside Curacao, Curacao shall have an arrangement with the States where operations will be conducted

(b) No person shall operate a single-engine turbine-powered aeroplanes at night and/or in IMC unless the airworthiness certification of the aeroplane is appropriate and acceptable to the Authority and the overall safety of the operation is consistent with commercial air transportation operations as provided by:

(1) The reliability of the turbine engine;

(2) The operator's maintenance procedures, operating practices, and flight dispatch procedures;

(3) Crew training programmes; and

(4) Equipment and additional requirements provided in accordance with paragraph 8.7.2.3(d) of this subsection.

(c) No person shall operate a single-engine turbine-powered aeroplane at night and/or in IMC unless the aeroplane has an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 01 January 2005 shall have an automatic trend monitoring system.

(d) IS: 8.7.2.3 prescribes additional airworthiness and operational requirements applicable to the operation of single-engine turbine-powered aeroplanes at night and/or in IMC with respect to:

(1) Turbine engine reliability

(2) Systems and equipment

(3) MEL;

(4) Aircraft Flight Manual information

(5) Event reporting

(6) Operator planning

(7) Flight crew experience, training and checking

(8) Route limitations over water; and

(9) Operator certification or validation

(e) No person may operate a multi-engine aeroplane in revenue passenger-carrying operations that is unable to comply with any of the performance limitations of 8.7.2.4 through 8.7.2.8 of this part unless that aeroplane is continually operated:

(1) In daylight;

(2) In VFR, excluding over the top operations; and

(3) At a mass that will allow it to climb, with the critical engine inoperative, at least 15 m (50 ft) a minute when operating at the MEAs of the intended route or any planned diversion, or at 1500 m (5000 ft) MSL, whichever is higher.

(f) Multi-engine aeroplanes that are unable to comply with paragraph 8.7.2.3(e)(3) of this subsection are, for the purpose of this section, considered to be a single-engine aeroplane and shall comply with the requirements of paragraph 8.7.2.3(a) of this subsection.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.1.1 and 3.2.2.1, provides additional guidance.

8.7.2.4 AIRCRAFT PERFORMANCE CALCULATIONS

(a) No person may take off an aircraft used in commercial air transport without ensuring that the applicable operating and performance limitations required for this subsection can be accurately computed based on the Aircraft Flight Manual, Rotorcraft Flight Manual, or other data source approved by the Authority.

(b) Each person calculating performance and operating limitations for aircraft used in commercial air transport shall ensure that performance data used to determine compliance with this section can, during any phase of flight, accurately account for:

(1) Any reasonably expected adverse operating conditions that may affect aircraft performance;

(2) One engine failure for aircraft having two engines, if applicable; and

(3) Two engine failure for aircraft having three or more engines, if applicable.

(c) When calculating the performance and limitation requirements of 8.7.2.5 through 8.7.2.9 of this part, each person performing the calculation shall, for all engines operating and for inoperative engines, accurately account for:

(1) In all phases of flight:

(i) The effect of fuel and oil consumption on aircraft mass;

(ii) The effect of fuel consumption on fuel reserves resulting from changes in flight paths, winds, and aircraft configuration;

(iii) The effect of fuel jettisoning on aircraft mass and fuel reserves, if applicable and approved;

(iv) The effect of any ice protection system, if applicable and weather conditions require its use;

(v) Ambient temperatures and winds along intended route and any planned diversion; and

(vi) Flight paths and minimum altitudes required to remain clear of obstacles; and

(2) During take-off and landing:

(i) The condition of the take-off runway or area to be used, including any contaminates (e.g., water, slush, snow, ice);

(ii) The gradient of runway to be used;

(iii) The runway length including clearways and stopways, if applicable;

(iv) Pressure altitudes at take-off and landing sites;

(v) Current ambient temperatures and winds at take-off;

(vi) Forecast ambient temperatures and winds at each destination and planned alternate landing site;

(vii) The ground handling characteristics (e.g., braking action) of the type of aircraft; and

(viii) Landing aids and terrain that may affect the take-off path, landing path, and landing roll.

Note 1: Where conditions are different from those on which the performance is based, compliance may be determined by interpolation or by computing the effects of changes in the specific variables, if the results of the interpolation or computations are substantially as accurate as the results of direct tests.

Note 2: To allow for wind effect, take-off and landing data based on still air may be corrected by taking into account not more than 50 per cent of any reported headwind component and not less than 150 per cent of any reported tailwind component.

8.7.2.5 TAKE-OFF LIMITATIONS

(a) Aeroplanes. No person may take-off an aeroplane used in commercial air transport unless the following requirements are met when determining the maximum permitted take-off mass:

(1) The take-off run shall not be greater than the length of the runway.

(2) For turbine-powered aeroplanes:

(i) The take-off distance shall not exceed the length of the runway plus the length of any clearway, except that the length of any clearway included in the calculation shall not be greater than one-half the length of the runway; and

(ii) The accelerate-stop distance shall not exceed the length of the runway, plus the length of any stopway, at any time during take-off until reaching V1.

(3) For reciprocating-engine aeroplanes:

(i) The accelerate-stop distance shall not exceed the length of the runway at any time during take-off until reaching V1.

(4) If the critical engine fails at any time after the aeroplane reaches V1, to continue the take-off and reach a height, as indicated by the take-off path data, before passing over the end of the runway, either:

(i) By a height of at least 9 m (35 ft) vertically for turbine-powered aeroplanes or 15 m (50 ft) for reciprocating-engine aeroplanes; and

(ii) By at least 60 m (200 ft) horizontally within the aerodrome boundaries and by at least 90 m (300 ft) horizontally after passing the boundaries, without banking more than 15 degrees at any point on the take-off flight path.

(b) Helicopters. No person may take-off a helicopter used in commercial air transport that, in the event of a critical engine failure, cannot:

(1) For Class 1 helicopters:

(i) At or before the take-off decision point, discontinue the take-off and stop within the rejected take-off area; or

(ii) After the take-off decision point, continue the take-off and then climb, clearing all obstacles along the flight path, until a suitable landing site is found.

(2) For Class 2 helicopters:

(i) Before reaching a defined point after take-off, safely execute a forced landing within the rejected take-off area, or

(ii) At any point after reaching a defined point after take-off, continue the take-off and then climb, clearing all obstacles along the flight path, until a suitable landing site is found.

(3) For Class 3 helicopters:

(i) Clear the obstacles along its flight path by an adequate margin; or

(ii) Maintain minimum flight altitude; or

(iii) At engine failure permit a safe, forced landing.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.1.1, 3.2.5.1, and 3.2.5.2, and ICAO Doc 10064, Aeroplane Performance Manual, provide additional guidance.

8.7.2.6 EN-ROUTE LIMITATIONS- AEROPLANE—ALL ENGINES OPERATING

(a) No person may take off a reciprocating-engine aeroplane used in commercial air transport at a mass that does not allow a rate of climb of at least 6.9 V_{so}, (that is, the number of feet per minute obtained by multiplying the aeroplane's minimum steady flight speed by 6.9) with all engines operating, at an altitude of at least 300 m (1 000 ft) above all terrain and obstructions within 10 miles of each side of the track.

8.7.2.7 EN-ROUTE LIMITATIONS—ONE ENGINE INOPERATIVE

(a) AEROPLANES. No person may take-off an aeroplane used in commercial air transport having two engines unless that aeroplane can, in the event of a power failure at the most critical point en-route, continue the flight to a suitable aerodrome where a landing can be made while allowing:

(1) For reciprocating-engine aeroplanes:

(i) At least a rate of climb of (0.079-0.106/N) $V_{so}2$ (when V_{so} is expressed in knots) at an altitude of 300 m (1 000 ft) above all terrain and obstructions within 9.3 km (5 NM) on each side of the intended track; and

(ii) A positive slope at an altitude of at least 450 m (1500 ft) above the aerodrome where the aeroplane is assumed to land.

(2) For turbine-powered transport category aeroplanes:

(i) A positive slope at an altitude of at least 300 m (1000 ft) above all terrain and obstructions within 9.3 km (5 NM), on each side of the intended track;

(ii) A net flight path from cruising altitude to the intended landing aerodrome that allows at least 600 m (2000 ft) clearance above all terrain and obstructions within 9.3 km (5 NM), on each side of the intended track; and

(iii) A positive slope at an altitude of at least 450 m (1500 ft) above the aerodrome where the aeroplane is assumed to land;

Note 1: The climb rate specified in paragraph 8.7.2.7(a)(1)(i) of this subsection may be amended to 0.026 $V_{so}2$ for large transport category aircraft issued a type certificate before 1953.

Note 2: The 9.3 km (5 NM) clearance margin stated in paragraph 8.7.2.7(a) of this subsection shall be increased to 18.5 km (10 NM) if navigational accuracy does not meet the 95% containment level.

(b) HELICOPTERS. No person shall take-off a helicopter used in commercial air transport having two engines unless that helicopter can, in the event of the critical engine failing at any point in the en-route phase, continue the flight to the destination or alternate landing site without flying below the minimum flight altitude at any point and clearing all obstacles in the approach path by a safe margin.

Note 3: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.2 and 3.2.5.4, provides additional guidance.

8.7.2.8 EN-ROUTE LIMITATIONS—TWO ENGINES INOPERATIVE

(a) AEROPLANES. No person may take-off an aeroplane used in commercial air transport having three or more engines at such a mass where there is no suitable landing aerodrome within 90 minutes at any point along the intended route (with all engines operating at cruising power), unless that aeroplane can, in the event of simultaneous power failure of two critical engines at the most critical point along that route, continue to a suitable landing aerodrome while allowing:

(1) For turbine-powered aeroplanes:

(i) A net flight path (considering the ambient temperatures anticipated along the track) clearing vertically by at least 600 m (2000 ft) all terrain and obstructions within 9.3 km (5 NM) on each side of the intended track;

(ii) A positive slope at 450 m (1500 ft) above the aerodrome of intended landing; and

(iii) Enough fuel to continue to the aerodrome of intended landing, to arrive at an altitude of at least 450 m (1500 ft) directly over the aerodrome, and thereafter to fly for 15 minutes at cruise power.

Note: The consumption of fuel and oil after the engine failure is the same as the consumption that is allowed for in the net flight path data in the Aircraft Flight Manual.

(2) For reciprocating-engine aeroplanes:

(i) A rate of climb at 0.013 $(V_{so})^2$ feet per minute (that is, the number of feet per minute is obtained by multiplying the number of knots squared by 0.013) at an altitude of 300m (1000 ft) above the highest ground or obstruction within 18.6 km (10 NM) on each side of the intended track, or at an altitude of 1500 m (5000 ft), whichever is higher; and

(ii) Enough fuel to continue to the aerodrome of intended landing and to arrive at an altitude of at least 300 m (1000 ft) directly over that aerodrome.

Note 1: When the two engines of the reciprocating-engine aeroplane are predicted to fail at an altitude above the prescribed minimum altitude, compliance with the prescribed rate of climb need not be shown during the descent from the cruising altitude to the prescribed minimum altitude, if those requirements can

be met once the prescribed minimum altitude is reached, and assuming descent to be along a net flight path and the rate of descent to be 0.013 $V_{so}2$ greater than the rate in the approved performance data.

Note 2: If fuel jettisoning is authorised (or planned), the aeroplane's mass at the point where the two engines fail is considered to be not less than that which would include enough fuel to proceed to an aerodrome and to arrive at an altitude of at least 300 m (1000 ft) directly over that aerodrome.

(b) Helicopters. No person shall take-off a Class 1 or Class 2 helicopter used in commercial air transport having three or more engines unless that helicopter can, in the event of two critical engines failing simultaneously at any point in the en-route phase, continue the flight to a suitable landing site.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.3 and 3.2.5.5, provides additional guidance.

8.7.2.9 LANDING LIMITATIONS

(a) AEROPLANES. No person may take-off an aeroplane used in commercial operations unless its mass on arrival at either the intended destination aerodrome or any planned alternate aerodrome would allow a full stop landing from a point 15 m (50 ft) above the intersection of the obstruction clearance plane and the runway, and within:

(1) For turbine-powered aeroplanes, 60 per cent of the effective length of each runway; and

(2) For reciprocating-engine aeroplanes, 70 per cent of the effective length of each runway.

Note: Guidelines for using runway surface condition information on board aircraft are contained in ICAO Doc 10064, Aeroplane Performance Manual.

(b) For the purpose of determining the allowable landing mass at the destination aerodrome, each person determining the landing limit shall ensure that:

(1) The aeroplane is landed on the most favourable runway and in the most favourable direction, in still air; or

(2) The aeroplane is landed on the most suitable runway considering the probable wind velocity and direction, runway conditions, the ground handling characteristics of the aeroplane, and other conditions such as landing aids and terrain.

Note: If the runway at the landing destination is reported or forecast to be wet or slippery, the landing distance available shall be at least 115 per cent of the required landing distance unless, based on a showing of actual operating landing techniques on wet or slippery runways, a shorter landing distance (but not less than that required paragraph 8.7.2.9(a) of this subsection has been approved for a specific type and model aeroplane and this information is included in the Aircraft Flight Manual.

(c) A turbine-powered transport category aeroplane that would be prohibited from taking off because it could not meet the requirements of paragraph 8.7.2.9(a)(1) of this subsection may take off if an alternate aerodrome is specified that meets all the requirements of paragraph 8.7.2.9(a) of this subsection.

(d) HELICOPTERS. No person may take-off a helicopter used in commercial air transport unless, with all engines operating on arrival at the intended destination landing site or any planned alternate landing, it can clear all obstacles on the approach path and can land and stop within the landing distance available.

(e) HELICOPTERS. No person may take-off a helicopter used in commercial air transport unless, in the event of any engine becoming inoperative in the approach and landing phase on arrival at the intended destination landing site or any planned alternate landing, it can:

(1) For Class 1 helicopters:

(i) Before the landing decision point, clear all obstacles on the approach path and be able to land and stop within the landing distance available or to perform a balked landing and clear all obstacles in the flight path by an adequate margin; or

(ii) After the landing decision point, land and stop within the landing distance available.

(2) For Class 2 helicopters:

(i) Before reaching a defined point before landing, safely execute a forced landing within the landing distance available.

(3) For Class 3 helicopters:

(i) Safely execute a forced landing within the landing distance available.

Note: ICAO Doc 9388, Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition, paragraphs 3.2.4.4.1, 3.2.4.4.2, 3.2.4.4.3, 3.2.5.6, and 3.2.5.7, provides additional guidance.

8.7.2.10 ADDITIONAL REQUIREMENTS FOR CLASS 3 HELICOPTERS OPERATING IN INSTRUMENT METEOROLOGICAL CONDITIONS

(a) Except for special VFR flights, no person may operate a performance Class 3 helicopter in IMC unless:

(1) The surface environment over which the operation is to be performed is acceptable to the Authority;

(2) The helicopter is certificated for flight under IFR; and

(3) The operation is approved by the Authority taking into consideration the overall level of safety provided by:

(i) The reliability of the engines; and

(ii) The operator's maintenance procedures, operating practices, crew training programmes; and equipment including the operator's vibration health monitoring practices for the tail-rotor drive system.

(b) Except for special VFR flights, no person may operate a performance Class 3 helicopter in IMC unless the operator has an engine trend monitoring system and uses the instruments, systems and operational/maintenance procedures to monitor the engines that are recommended by the helicopter manufacturer.

Note: See ICAO Annex 6, Part III, Chapter 3, for additional guidance on helicopter performance operating limitations.

8.8 FLIGHT RULES

8.8.1 ALL OPERATIONS

8.8.1.1 OPERATION OF AIRCRAFT ON THE GROUND

(a) No person may taxi an aircraft on the movement area of an aerodrome unless the person at the controls:

(1) Has been authorised by the owner, the lessee, or a designated agent;

(2) Is fully competent to taxi the aircraft;

(3) Is qualified to use the radio if radio communications are required; and

(4) Has received instruction from a competent person in respect of aerodrome layout, and where appropriate, information on routes, signs, marking, lights, ATC signals and instructions, and phraseology and procedures, and is able to conform to the operational standards required for safe aircraft movement at the aerodrome.

(b) No person shall cause a helicopter rotor to be turned under power unless there is a qualified pilot at the controls.

(c) No person shall taxi an aircraft under the guidance of a signalman unless:

(1) The standard marshalling signals to the aircraft are provided in a clear and precise manner using the signals as prescribed by the Authority in IS: 8.8.2.11.

(2) The signalman is wearing a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation; and

(3) The signalman and all participating ground personnel are using daylight-fluorescent wands, table-tennis bats or gloves for all signalling during daylight hours and illuminated wands at night or in low visibility.

8.8.1.2 TAKE-OFF CONDITIONS

(a) Before commencing take-off, a PIC shall ensure that:

(1) According to the available information, the weather at the aerodrome and the condition of the runway intended to be used will allow for a safe take-off and departure; and

(2) The RVR or visibility in the take-off direction of the aircraft is equal to or better than the applicable minimum.

8.8.1.3 FLIGHT INTO KNOWN OR EXPECTED ICING

(a) No person may take-off an aircraft or continue to operate an aircraft en-route when icing conditions are expected or encountered, without ensuring that the aircraft is certified for icing operations and has sufficient operational de-icing or anti-icing equipment.

(b) No person may take-off an aircraft when frost, ice or snow is adhering to the wings, control surfaces, propellers, engine inlets or other critical surfaces of the aircraft which might adversely affect the performance or controllability of the aircraft.

(c) For commercial air transport operations, no person may take-off an aircraft when conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless the aircraft has been inspected for icing, and the procedures approved for the AOC holder by the Authority are followed to ensure ground de-icing and anti-icing is accomplished.

8.8.1.4 ALTIMETER SETTINGS

(a) Each person operating an aircraft except a balloon or a glider, shall maintain the cruising altitude or FL by reference to an altimeter setting.

(b) The lowest usable FL is determined by the atmospheric pressure in the area of operation.

(c) The flight crew shall use the altimeter settings provided by the ATC service of Curaçao.

Note: In areas of the world where it may not be possible to get an altimeter setting, reference the State's procedures in the AIP.

8.8.1.5 MINIMUM SAFE ALTITUDES—GENERAL

(a) Except when necessary for take-off or landing, no person may operate an aircraft below the following altitudes:

(b) ANYWHERE. An altitude allowing, if a power unit fails, continuation of flight or an emergency landing without undue hazard to persons or property on the surface.

(c) OVER CONGESTED AREAS. Over any congested area of a city, town, or settlement, or over any open-air assembly of persons, an altitude of 300 m (1000 ft) above the highest obstacle within a horizontal radius of 600 m (2000 ft) of the aircraft.

(d) OVER OTHER THAN CONGESTED AREAS. An altitude of 150 m (500 ft) above the surface, except over open water or sparsely populated areas where the aircraft may not be operated closer than 150 m (500 ft) to any person, vessel, vehicle, or structure.

(e) HELICOPTERS. Pilots of helicopters are not subject to the proximity restrictions provided they are operated in a manner that is not hazardous to persons and property on the surface. The PIC of a helicopter shall comply with any routes or altitudes for the area that are prescribed for helicopters by the Authority.

(f) Altitudes are prescribed by ICAO Annex 2: 3.1.2, 4.6; 5.1.2.

8.8.1.6 MINIMUM SAFE VISUAL FLIGHT RULES ALTITUDES

(a) Except when necessary for take-off or landing, no person may operate an aircraft below the following altitudes:

(1) During the day, under VFR, no person may operate an aircraft at an altitude less than 300 m (1000 ft) above the surface or within 300 m (1000 ft) of any mountain, hill, or other obstruction to flight; and

(2) At night, under VFR, no person may operate an aircraft at an altitude less than 300 m (1000 ft) above the highest obstacle within a horizontal distance of 8 km (5 SM) from the centre of the intended course, or, in designated mountainous areas, less than 600 m (2000 ft) above the highest obstacle within a horizontal distance of 8 km (5 SM) from the centre of the intended course.

8.8.1.7 INSTRUMENT APPROACH OPERATING MINIMA

(a) No person may operate to or from an aerodrome using operating minima lower than those which may be established for that aerodrome by the State of the Aerodrome, unless that State specifically approves that operation in accordance with the provisions prescribed in IS: 8.8.1.7.

(1) For commercial operators, the State of the Operator, and for general aviation, the State of Registry, shall authorise operational credit(s) for operations with aeroplanes equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS, or CVS. Where the operational credit relates to LVO, the State of the Operator shall issue a specific approval. Such authorisations shall not affect the classification of the IAP.

(2) Operational credit includes:

(i) For the purposes of an approach ban, a minima below the aerodrome operating minima;

(ii) Reducing or satisfying the visibility requirements; or

(iii) Requiring fewer ground facilities as compensated for by airborne capabilities.

Note 1: Guidance on operational credit for aircraft equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS, and CVS is contained in ICAO Annex 6, Part I, Attachment I, and ICAO Doc 9365, Manual of All-Weather Operations.

Note 2: Information regarding a HUD or equivalent displays, including references to RTCA and EUROCAE documents, is contained in ICAO Doc 9365, Manual of All-Weather Operations.

Note 3: Automatic landing system – helicopter is an automatic approach using airborne systems that provide automatic control of the flight path to a point aligned with the landing surface, from which the pilot can transition to a safe landing by means of natural vision without the use of automatic control.

(b) No person may conduct instrument approach operations at an aerodrome below 800 m (2600 ft) visibility unless RVR information is provided.

(c) Instrument approach operations shall be classified based on the designed lowest operating minima below which an approach operation shall only be continued with the required visual reference as follows:

(1) Type A: an MDH or a DH at or above 75 m (250 ft); and

(2) Type B: a DH below 75 m (250 ft). Type B instrument approach operations are categorized as:

(i) CAT I: a DH not lower than 60 m (200 ft) with either a visibility not less than 800 m or an RVR not less than 550 m;

(ii) CAT II: a DH lower than 60 m (200 ft) but not lower than 30 m (100 ft) and an RVR not less than 300 m;

(iii) CAT IIIA: a DH lower than 30 m (100 ft) or no DH and an RVR less than 300 m or no RVR limitations

(d) The operating minima for 2D instrument approach operations using IAPs shall be determined by establishing an MDA or an MDH, minimum visibility and, if necessary, cloud conditions.

(e) The operating minima for 3D instrument approach operations using IAPs shall be determined by establishing a decision altitude or DH and the minimum visibility or RVR.

(f) The Authority shall issue a specific approval for instrument approach operations in low visibility which shall only be conducted when RVR information is provided

(g) For take-off in low visibility, the State of Registry shall issue a specific approval for the minimum take-off RVR.

Note 1: Where DH and RVR fall into different categories of operation, the instrument approach operation would be conducted in accordance with the requirements of the most demanding category (e.g., an operation with a DH in the range of CAT IIIA but with an RVR in the range of CAT IIIB would be considered a CAT IIIB operation or an operation with a DH in the range of CAT II but with an RVR in the range of CAT I would be considered a CAT II operation). This does not apply if the RVR and/or DH has been approved as operational credits

Note 2: The required visual reference means that section of the visual aids or approach area that should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach operation the required visual reference is the runway environment.

Note 3: Guidance on approach classification as it relates to instrument approach operations, procedures, runways, LVO and navigation systems is contained in ICAO Doc 9365, Manual of All-Weather Operations.

Note 4: For guidance on applying a continuous descent final approach (flight technique on NPA procedures (2D instrument approach operations Type A), refer to ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume I, Section 4, Chapter 1. Continuous descent final approach with manual calculation of the required rate of descent (see ICAO Doc 8168, Volume I, Part I, Section 4: 1.7 and 1.8) are considered 2D instrument approach operations. Continuous descent final approach with advisory VNAV guidance calculated by on-board equipment (see ICAO Doc 8168, Part II, Section 5) are considered 3D instrument approach operations.

8.8.1.8 CATEGORY II AND III OPERATIONS—GENERAL OPERATING RULES

(a) No person may operate a civil aircraft in a CAT II or CAT III operation unless:

(1) The PIC and CP of the aircraft hold the appropriate authorisations and ratings prescribed in Part 2 of these regulations;

(2) Each flight crew member has adequate knowledge of, and familiarity with, the aircraft and the procedures to be used; and

(3) The instrument panel in front of the pilot who is controlling the aircraft has appropriate instrumentation for the type of flight control guidance system that is being used.

(b) Unless otherwise authorised by the Authority, no person may operate a civil aircraft in a CAT II or CAT III operation unless each ground component required for that operation and the related airborne equipment is installed and operating.

(c) When the approach procedure being used provides for and requires the use of a DH, the authorised DH is the highest of the following:

(1) The DH prescribed by the approach procedure.

(2) The DH prescribed for the PIC; or

(3) The DH for which the aircraft is equipped.

(d) Unless otherwise authorised by the Authority, no pilot operating an aircraft in a CAT II or CAT III approach that provides and requires the use of a DH may continue the approach below the authorised DH unless the following conditions are met:

(1) The aircraft is in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres, and where that descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing; and

(2) At least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

(i) The approach light system, except that the pilot may not descend below 30 m (100 ft) above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable.

(ii) The threshold.

(iii) The threshold markings.

(iv) The threshold lights.

(v) The touchdown zone or touchdown zone markings; or

(vi) The touchdown zone lights.

(e) Unless otherwise authorised by the Authority, each pilot operating an aircraft shall immediately execute an appropriate missed approach whenever, before touchdown, the requirements of paragraph 8.8.1.8(d) of this subsection are not met.

(f) No person operating an aircraft using a CAT III approach without DH may land that aircraft except in accordance with the provisions of the Letter of Authorisation issued by the Authority.

(g) The Authority shall issue a specific approval for the minimum take-off RVR for take-off in low visibility.

(h) No person may conduct CAT II or CAT III instrument approaches and landing operations below 800 m (2600 ft) visibility unless RVR information is provided.

(i) The State of the Operator shall issue a specific approval for instrument approach operations in low visibility which shall only be conducted when RVR information is provided.

(j) Paragraphs 8.8.1.8(a) through (g) of this subsection do not apply to operations conducted by AOC holders issued a certificate under Part 9 of these regulations. No person may operate a civil aircraft in a CAT II or CAT III operation conducted by an AOC holder unless the operation is conducted in accordance with that AOC holder's approved training programme and operations specifications.

Note: CAT II approval is required prior to obtaining CAT III approval.

Note 2: ICAO Doc 9365, Manual of All-Weather Operations, provides additional guidance.

Note 3: In general, visibility for take-off is defined in terms of RVR. An equivalent horizontal visibility may also be used.

8.8.1.9 CATEGORY II AND CATEGORY III MANUAL

(a) Except as provided in paragraph 8.8.1.9(c) of this subsection, no person may operate a civil aircraft in a CAT II or CAT III operation unless:

(1) There is available in the aircraft a current and approved CAT II or CAT III manual, as appropriate, for that aircraft;

(2) The operation is conducted in accordance with the procedures, instructions, and limitations in the appropriate manual; and

(3) The instruments and equipment listed in the manual that are required for a particular CAT II or CAT III operation have been inspected and maintained in accordance with the maintenance programme contained in the manual.

(b) Each operator shall keep a current copy of each approved manual at its main base of operations and shall make each manual available for inspection upon request by the Authority.

(c) Paragraphs 8.8.1.9(a) and (b) of this subsection do not apply to operations conducted by an AOC holder issued a certificate under Part 9 of these regulations, which will have approved CAT II or CAT III operations included as a part of its OM. IS: 8.8.1.9 provides specific Category II and III Manual requirements.

(d) Specific CAT II and CAT III manual requirements are prescribed in IS 8.8.1.9.

Note 1: CAT II approval is required to prior to obtaining CAT III approval.

Note 2: ICAO Doc 9365, Manual of All-Weather Operations, provides additional guidance.

8.8.1.10 EXEMPTION FROM CERTAIN CATEGORY II OPERATIONS

(a) The Authority may grant an exemption from the requirements of 8.8.1.8 and 8.8.1.9 of this part for the operation of small aircraft in CAT II operations if the operator can demonstrate to the Authority that the proposed operation can be safely conducted.

Note: Such authorisation does not permit operation of the aircraft carrying persons or property for compensation or hire.

8.8.1.11 DIVERSION DECISION—ENGINE INOPERATIVE

(a) Except as provided in paragraph 8.8.1.11(b) of this subsection, the PIC shall land the aircraft at the nearest suitable aerodrome at which a safe landing can be made whenever an engine of an aircraft fails or is shut down to prevent possible damage.

(b) If not more than one engine of an aeroplane having three or more engines fails, or its rotation is stopped, the PIC may proceed to an aerodrome if the PIC decides that proceeding to that aerodrome is as safe as landing at the nearest suitable aerodrome after considering the:

(1) Nature of the malfunction and the possible mechanical difficulties that may occur if flight is continued;

(2) Altitude, mass, and usable fuel at the time of engine stoppage;

(3) Weather conditions en-route and at possible landing points;

(4) Air traffic congestion;

(5) Type of terrain; and

(6) Familiarity with the aerodrome to be used.

8.8.1.12 OPERATING NEAR OTHER AIRCRAFT—INCLUDING FORMATION FLIGHTS

(a) No person may operate an aircraft so close to another aircraft as to create a collision hazard.

(b) No person may operate an aircraft in formation flight except:

(1) By arrangement with the PIC of each aircraft in the formation, and

(2) If in controlled airspace, in accordance with conditions prescribed by the appropriate air traffic authority, which includes that:

(i) The formation operates as a single aircraft with regard to navigation and position reporting;

(ii) Separation between aircraft in the flight shall be the responsibility of the flight leader and the PICs of the other aircraft in flight;

(iii) Separation between aircraft shall include periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and break-away; and

(iv) A distance not exceeding 1 km (0.5 NM) laterally and longitudinally and 30 m (100 ft) vertically from the flight leader shall be maintained by each aircraft.

(c) No person may operate an aircraft, carrying passengers for hire, in formation flight.

8.8.1.13 RIGHT-OF-WAY RULES—EXCEPT WATER OPERATIONS

(a) GENERAL.

(1) Each pilot shall maintain vigilance so as to see and avoid other aircraft

(2) When a rule of this subsection gives another aircraft the right-of-way, the pilot shall give way to that aircraft and may not pass over, under, or ahead of it unless passing well clear and taking into account the effect of aircraft wake turbulence.

(3) Each pilot who has the right-of-way shall maintain his or her heading and speed but is still responsible for taking such action, including collision-avoidance manoeuvres based on resolution advisories provided by ACAS equipment, as will best avert collision.

(b) IN DISTRESS. An aircraft in distress has the right-of-way over all other air traffic.

(c) CONVERGING.

(1) When aircraft of the same category are converging at approximately the same altitude (except head-on, or approximately so), the aircraft to the other's right has the right-of-way.

(2) If the converging aircraft are of different categories:

(i) A balloon has the right-of-way over any other category of aircraft;

(ii) A glider has the right-of-way over an airship, and power driven heavier than air aircraft; and

(iii) An airship has the right-of-way over a power driven heavier than air aircraft

(d) TOWING OR REFUELLING. An aircraft towing or refuelling other aircraft has the right-of- way over all other engine-driven aircraft, except aircraft in distress.

(e) APPROACHING HEAD-ON. When aircraft are approaching each other head-on, or nearly so, each pilot of each aircraft shall alter course to the right.

(f) OVERTAKING. Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft, whether climbing, descending or in horizontal flight, shall alter course to the right to pass well clear.

(g) LANDING. Aircraft, while on final approach to land or while landing, have the right-of-way over other aircraft in flight or operating on the surface.

(h) MORE THAN ONE LANDING AIRCRAFT. When two or more aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the lower altitude has the right-of-way.

(i) The PIC shall not take advantage of the right of way landing rules in paragraphs 8.8.1.13(g) and (h) in this subsection to cut in front of another aircraft that is on final approach to land or to overtake that aircraft.

(j) EMERGENCY LANDING. Aircraft that are compelled to land have the right-of-way over other aircraft.

(k) TAKING OFF. Aircraft taking off have the right-of-way over aircraft taxiing on the manoeuvring area of an aerodrome.

(l) SURFACE MOVEMENT OF AIRCRAFT.

(1) APPROACHING HEAD-ON. When aircraft are approaching each other head-on, or approximately so, the pilot of each aircraft shall stop, or wherever practicable alter course to the right so as to keep well clear

(2) CONVERGING. When two aircraft are converging on a course, the pilot who has the other aircraft on his right shall give way.

(3) OVERTAKING. Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft shall keep well clear.

(m) AIRCRAFT TAXIING ON THE MANOEUVRING AREA OF AN AERODROME.

(1) The pilot of an aircraft taxiing on the manoeuvring area shall stop and hold at all runway-holding positions unless otherwise authorised by the aerodrome control tower.

(2) The pilot of an aircraft taxiing on the manoeuvring area shall stop and hold at all lighted stop bars and may proceed further when the lights are switched off.

(3) The pilot of an aircraft taxiing on the manoeuvring area of an aerodrome shall give way to aircraft:

(i) taking off or about to take-off; or

(ii) landing or in the final stages of an approach to landing.

8.8.1.14 RIGHT-OF-WAY RULES—WATER OPERATIONS

(a) GENERAL. Each person operating an aircraft on the water shall, insofar as possible, keep clear of all vessels and avoid impeding their navigation, and shall give way to any vessel or other aircraft that is given the right-of-way by any rule of this subsection.

(b) CONVERGING OR CROSSING. When aircraft, or an aircraft and a vessel, are on crossing courses, the aircraft or vessel to the other's right has the right-of-way.

(c) APPROACHING HEAD-ON. When aircraft, or an aircraft and a vessel, are approaching head-on, or approximately so, each shall alter its course to the right to keep well clear.

(d) OVERTAKING. Each aircraft or vessel that is being overtaken has the right-of-way, and the one overtaking shall alter course to keep well clear.

(e) SPECIAL CIRCUMSTANCES. When aircraft, or an aircraft and a vessel, approach so as to involve risk of collision, each aircraft or vessel shall proceed with careful regard to existing circumstances, including the limitations of the respective craft

(f) LANDING AND TAKING OFF. Aircraft landing on or taking off from the water shall keep well clear of all vessels and shall avoid impeding their navigation.

8.8.1.15 USE OF AIRCRAFT LIGHTS

(a) If an aircraft has red rotating beacon lights, or other lights installed to show that the engine is running, the pilot shall switch those lights on before starting engines and shall display those lights at all times the engines are running.

(b) No person may operate an aircraft between the period from sunset to sunrise unless:

(1) The aircraft has lighted navigation lights; and

(2) If anti-collision lights are installed, those lights are lighted.

(c) No person may park or move an aircraft between the period from sunset to sunrise in, or in a dangerous proximity to, a movement area of an aerodrome, unless the aircraft:

(1) Is clearly illuminated;

(2) Has lighted navigation lights, or

(3) Is in an area that is marked by obstruction lights, or

(4) Has lights to indicate when the engine is running.

(d) No person may anchor an aircraft unless that aircraft:

(1) Has lighted anchor lights; or

(2) Is in an area where anchor lights are not required on vessels.

(e) No person may operate an aircraft on water during the period from sunset to sunrise unless:

(1) The aircraft displays lights as required by the International Regulations for Preventing Collisions at Sea (most recent edition); or

(2) The aircraft displays lights as similar as possible in characteristics and position to those required by the International Regulations for Preventing Collisions at Sea if it is not practical to display the lights exactly as required.

(f) A pilot is permitted to switch off or reduce the intensity of any flashing lights fitted to meet the requirements of this subsection if they do or are likely to:

(1) Adversely affect the satisfactory performance of duties; or

(2) Subject an outside observer to harmful dazzle.

8.8.1.16 SIMULATED INSTRUMENT FLIGHT

(a) No person may operate an aircraft in simulated instrument flight unless:

(1) The aircraft has fully functioning dual controls,

(2) The other control seat is occupied by a safety pilot who holds at least a private pilot licence with category and class ratings appropriate to the aircraft being flown, and

(3) The safety pilot has adequate vision forward and to each side of the aircraft, or a competent observer in the aircraft adequately supplements the vision of the safety pilot.

(b) No person may engage in simulated instrument flight conditions during commercial air transport operations.

8.8.1.17 IN-FLIGHT SIMULATION OF ABNORMAL SITUATIONS

(a) No person may simulate an abnormal or emergency situation during commercial air transport operations.

8.8.1.18 DROPPING, SPRAYING, TOWING

(a) Except under conditions prescribed by the Authority, no pilot may take the following actions:

(1) Dropping, dusting or spraying from an aircraft;

(2) Towing of aircraft or other objects; or

(3) Allowing parachute descents.

8.8.1.19 AEROBATIC FLIGHT

(a) No person may operate an aircraft in aerobatic flight:

(1) Over any city, town or settlement;

(2) Over an open air assembly of persons;

(3) Within the lateral boundaries of the surface areas of Class B, C, D or E airspace designated for an aerodrome;

(4) Below an altitude of 450 m (1500 ft) above the surface;

(5) When the flight visibility is less than 5 km (3 SM), and

(6) Unless in compliance with any other conditions prescribed by the Authority.

(b) No person may operate an aircraft in manoeuvres exceeding a bank of 60 degrees or pitch of 30 degrees from level flight attitude unless all occupants of the aircraft are wearing parachutes packed by a qualified parachute rigger, licensed in accordance with Part 2 of these regulations, in the preceding 12 calendar months.

8.8.1.20 FLIGHT TEST AREAS

(a) No person may flight-test an aircraft except over open water, or sparsely populated areas having light air traffic.

8.8.1.21 PROHIBITED AREAS AND RESTRICTED AREAS

(a) No person may operate an aircraft in a prohibited area, or in restricted areas, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established.

8.8.1.22 OPERATIONS IN MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS OR REDUCED VERTICAL SEPARATION MINIMA AIRSPACE

(a) No person may operate a civil aircraft of Curaçao registry in the North Atlantic airspace designated as MNPS airspace or in airspace designated as RVSM without a written authorisation issued by the Authority.

(b) No person may operate an aircraft in MNPS or RVSM airspace, except in accordance with the conditions of the procedures and restrictions required for this airspace.

Note: Part 7 contains requirements regarding navigation equipment for operations in MNPS and RVSM airspace.

(c) No person may operate an aircraft in airspace where a Regional Air Navigation Agreement, MNPS, or RVSM airspace has been prescribed, except in accordance with:

(1) The conditions of the procedures and restrictions required for this airspace; and

(2) A written authorisation issued by the Authority.

(d) No person may operate a civil aircraft of Curacao registry in the North Atlantic airspace designated as NAT HLA airspace or in airspace designated as RVSM without a written authorisation issued by the Authority.

Note 1: ICAO bulletin NAT Doc 007, V.2018-2, North Atlantic Airspace and Operations Manual, has re-designated the North Atlantic MNPS airspace to the NAT HLA. ICAO Regional Air Navigation Agreements may be consulted for other specific airspace areas.

Note 2: ICAO Doc 9574, Manual on a 300 m (1 000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive, provides additional guidance.

Note 3: Part 7 of these regulations contains requirements regarding navigation equipment for operations in MNPS and RVSM airspace.

8.8.1.23 OPERATIONS ON OR IN THE VICINITY OF A CONTROLLED OR AN UNCONTROLLED AERODROME

(a) When approaching to land at an aerodrome, each pilot of:

(1) An aeroplane shall make all turns of that aeroplane to the left; or to the right, if appropriately indicated by the Authorities having jurisdiction over that aerodrome; and

(2) A helicopter shall avoid the flow of aeroplanes.

(b) When departing an aerodrome, each pilot of an aircraft shall comply with any traffic patterns established by the authorities having jurisdiction over that aerodrome.

(c) Each pilot of an aircraft shall land and take-off into the wind unless safety, the runway configurations, or traffic considerations determine that a different direction is preferable.

(d) Each pilot operating an aircraft either on or in the vicinity of an aerodrome shall:

(1) Observe other aerodrome traffic for the purpose of avoiding collision; and

(2) Conform with or avoid the pattern of traffic formed by other aircraft in operation.

(e) Each pilot of an aircraft when operating to, from, or through an aerodrome having an operational control tower shall also comply with the requirements at Subsection 8.8.2.8 of this part.

(f) Aerodrome traffic management at controlled and uncontrolled aerodromes may be supplemented or directed by the use of universal aviation signals, such as the light displays and visual markings prescribed in IS 8.8.2.11.

8.8.1.24 AERODROME TRAFFIC PATTERN ALTITUDES—TURBOJET, TURBOFAN, OR LARGE AIRCRAFT

(a) When arriving at an aerodrome, the PIC of a turbojet, turbofan, or large aircraft shall enter the traffic pattern at least 450 m (1500 ft) AGL until further descent is required for landing.

(b) When departing an aerodrome, the PIC of a turbojet, turbofan, or large aircraft shall climb to 450 m (1500 ft) AGL as rapidly as practicable.

8.8.1.25 COMPLIANCE WITH VISUAL AND ELECTRONIC GLIDE SLOPES

(a) The PIC of an aeroplane approaching to land on a runway served by a visual approach slope indicator shall maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.

(b) The PIC of a turbojet, turbofan, or large aeroplane approaching to land on a runway served by an ILS shall fly that aeroplane at or above the glide slope from the point of interception to the middle marker.

8.8.1.26 RESTRICTION OR SUSPENSION OF OPERATIONS: COMMERCIAL AIR TRANSPORT

(a) If a PIC or an AOC holder knows of conditions, including aerodrome and runway conditions, that are a hazard to safe operations, that person shall restrict or suspend all commercial air transport operations to such aerodromes and runways as necessary until those conditions are corrected.

8.8.1.27 CONTINUATION OF FLIGHT WHEN DESTINATION AERODROME IS TEMPORARILY RESTRICTED—COMMERCIAL AIR TRANSPORT

(a) No PIC may allow a flight to continue toward any aerodrome of intended landing where commercial air transport operations have been restricted or suspended, unless:

(1) In the opinion of the PIC, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the ETA; or

(2) There is no safer procedure.

8.8.1.28 INTERCEPTION OF CIVIL AIRCRAFT

(a) When intercepted by a military or government aircraft, each PIC shall comply with the International Standards when interpreting and responding to visual signals and communication, as prescribed in IS: 8.8.1.28.

(b) No pilot may conduct an international flight unless the procedures and signals relating to interception of aircraft, as prescribed in IS: 8.8.1.28, are readily available on the flight deck.

8.8.1.29 NOISE ABATEMENT PROCEDURES

(a) Each AOC holder shall operate its aircraft in accordance with the noise abatement procedures approved by the Authority.

(b) Unless otherwise directed by the Authority, the noise abatement procedures specified by an AOC holder for any one aeroplane type shall be the same for all aerodromes.

Note: A single procedure may not satisfy requirements at some aerodromes.

8.8.1.30 SINGLE PILOT OPERATIONS - AEROPLANE

(a) An aeroplane shall not be operated under IFR or at night by a single pilot unless approved by the State of the Operator.

(b) An aeroplane shall not be operated under IFR or at night by a single pilot unless;

(1) The Aircraft Flight Manual does not require a flight crew of more than one;

(2) the aeroplane is propeller driven and turbine powered and complies with Subsection 8.7.2.2 (e)(1) of this part;

(3) the maximum approved passenger seating configuration is not more than nine, or the aeroplane is propeller driven and turbine powered and complies with Subsection 8.7.2.2(e)(2) and the maximum approved passenger seating configuration is more than nine;

(4) the maximum certificated take-off mass does not exceed 5,700 kg (12,566 lb);

(5) the aeroplane is equipped as described in paragraphs 7.2.1.4(c), (d), and (e) of these regulations;

(6) the PIC has satisfied the requirements of experience, training, checking, and recency described in 8.10.1.41 of this part.

(c) Notwithstanding paragraphs 8.8.1.30(b)(2) and (3) of this subsection, the aeroplane shall be operated in compliance with paragraph 8.7.2.2(a) of this part.

(d) Any exemption for single pilot operations with more than nine passengers shall be authorised by the Authority in the operations specifications, as required by paragraph 8.7.2.2(e)(2) of this part

(e) If such operations are to be conducted outside Curaçao, Curaçao shall have an arrangement with the States where the operations will be conducted.

8.8.1.31 SINGLE ENGINE AEROPLANE OPERATIONS

(a) Except as provided in paragraphs 8.8.1.31(b) and (c) of this subsection single-engine aeroplanes, shall only be operated in conditions of weather and light, and over such routes and diversions therefrom, that permit a safe forced landing to be executed in the event of engine failure.

(b) In approving operations by single-engine turbine-powered aeroplanes, at night and/or in IMC, the State of the Operator shall ensure that the airworthiness certification of the aeroplane is appropriate and that the overall level of safety intended by the provisions of Parts 5 and 8 of these regulations is provided by;

(1) the reliability of the turbine engine;

(2) the operator's maintenance procedures, operating practices, flight dispatch procedures and crew training programmes; and

(3) equipment, and other requirements provided in accordance with 8.7.2.3 of this part and IS: 8.7.2.3

(c) All single-engine turbine-powered aeroplanes operated at night and /or in IMC shall have an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 01 January 2005 shall have an automatic trend monitoring system.

8.8.1.32 AEROPLANE OPERATING PROCEDURES FOR RATES OF CLIMB AND DESCENT

(a) Unless otherwise specified in an ATC instruction, to avoid unnecessary ACAS II resolution advisories in aircraft at or approaching adjacent altitudes or FLs, each operator shall specify procedures by which an aeroplane climbing or descending to an assigned altitude or FL, especially with an autopilot engaged, may do so at a rate less than 8 m (26 ft)/sec or 450 m (1500 ft)/min (depending on the instrumentation available throughout the last 300 m (1000 ft) of climb or descent to the assigned level when the pilot is made aware of another aircraft at or approaching an adjacent altitude or FL.

Note: Material concerning the development of these procedures is contained in ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume I, Part III, Section 3, Chapter 3.

8.8.1.33 REMOTELY PILOTED AIRCRAFT

(a) No person shall operate an RPA in a manner that would cause a hazard to persons, property or other aircraft.

(b) OPERATING RULES. A person operating an RPA shall comply with the general operating rules as listed below.

(1) A person operating an RPA, registered in Curaçao or holding an operator certificate from Curaçao, and its RPAS,

(i) Shall not operate in Curaçao without appropriate authorisation from the Authority,

(ii) Shall not engage in international air navigation without appropriate authorisation from the State from which the take-off of the RPA is made.

(iii) Shall not operate across the territory of another State, without special authorisation issued by each State in which the flight is to operate, which shall be obtained prior to

take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned.

Note: This authorisation may be in the form of agreements between the States involved.

(iv) Shall not operate over the high seas without prior coordination with the appropriate ATS authority, which shall be obtained prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned.

(v) Shall operate in accordance with conditions specified by the State of Registry, the State of the Operator if different from the State of Registry, and the State(s) in which the flight is to operate; and

(vi) Shall ensure that the RPAS meets the performance and equipment carriage requirements for the specific airspace in which the flight is to operate.

(2) Once authorization has been received from the Authority, the operator:

(i) Shall file a flight plan prior to operation of an RPA.

(ii) Shall notify the Authority and ATC immediately in the event of a flight cancellation, and

(iii) Shall, in the case of changes to the proposed flight, submit such changes to the Authority for consideration.

(c) CERTIFICATES AND LICENCES. No person may operate an RPA, registered in Curaçao or holding an operator certificate from Curaçao unless the RPA, the RPAS and the RP have obtained the proper approvals of the Authority, as listed below.

(1) An RPAS shall be approved, taking into account the interdependencies of the components, in accordance with Part 5 of these regulations, including:

(i) A certificate of airworthiness for the RPA, and

(ii) The associated RPAS components specified in the type design certificate and maintained in accordance with Curacao regulations.

(2) An operator shall have an RPAS operator certificate issued in accordance with Curacao regulations.

(3) RPs shall be licensed or shall have their licences rendered valid in accordance with Part 2 of these regulations.

Note 1: ICAO Assembly Resolution A37-15 Appendix G resolves that pending the coming into force of International Standards respecting particular categories, classes, or types of aircraft, certificates issued or rendered valid, under national regulations, by the Contracting State in which the aircraft is registered shall be recognised by other Contracting States for the purposes of flight over their territories, including landings and take-offs.

Note 2: Certification and licensing Standards are not yet developed by ICAO. Thus, in the meantime, any certification and licensing need not be automatically deemed to comply with the SARPs of the related ICAO Annexes, including Annexes 1, 6, and 8, until such time as the related RPAS SARPs are developed.

Note 3: Notwithstanding ICAO Assembly Resolution A37-15, Article 8 of the Chicago Convention assures each Contracting State of the absolute sovereignty over the authorisation for RPA operations over its territory.

(d) REQUEST FOR AUTHORISATION.

(1) The request for authorisation referred to paragraph 8.8.1.33(b) of this subsection shall be made by providing the required information in the application contained in IS 8.8.1.33; and

(2) A request for authorization to operate an RPA in Curaçao shall be made by following the in 10.2.1.3 of these regulations and providing the required information in the application contained in IS 10.2.1.3.

8.8.1.34 UNMANNED FREE BALLOONS

(a) No person shall operate an unmanned free balloon in a manner that would cause a hazard to persons, property, or other aircraft.

(b) CLASSIFICATION. Unmanned free balloons shall be classified as:

(1) LIGHT. An unmanned free balloon that carries a payload of one or more packages with a combined mass of less than 4 kg (9 lb), unless qualifying as a heavy balloon below;

(2) MEDIUM. An unmanned free balloon that carries a payload of two or more packages with a combined mass of 4 kg (9 lb) or more, but less than 6 kg (13 lb), unless qualifying as a heavy balloon; or

(3) HEAVY. An unmanned free balloon that carries a payload that:

(i) Has a combined mass of 6 kg (13 lb) or more; or

(ii) Includes a package of 3 kg (6 lb) or more; or

(iii) Includes a package of 2 kg (4 lb) or more with an area density of more than 13 g (28 lb) per square centimetre; or

(iv) Uses a rope or other device for suspension of the payload that requires an impact force of 230 N or more to separate the suspended payload from the balloon.

Note 1: The area density referred to in paragraph 8.8.1.34(b)(3)(iii) of this subsection is determined by dividing the total mass in grams of the payload package by the area in square centimetres of its smallest surface.

Note 2: The impact force of 230 N referred to in paragraphs 8.8.1.34(b)(3)(iv) and (d)(9) of this subsection is a unit of measure of force equivalent to a breaking strain of greater than 50 lb.

(c) OPERATING RULES. No person shall operate an unmanned free balloon:

(1) Unless the balloon has received appropriate authorisation from Curacao;

(2) Across the territory of another State without appropriate authorisation from the other State concerned prior to the launching of the balloon;

(3) Except in accordance with the conditions specified by the State of Registry and the State(s) to be overflown;

(4) In such a manner that impact of the balloon, or any part thereof, including its payload, with the surface of the earth, creates a hazard to persons or property not associated with the operation; and

(5) Over the high seas without prior coordination with the appropriate ATS authority.

(d) OPERATING LIMITATIONS AND EQUIPMENT REQUIREMENTS. No person shall operate an unmanned free balloon:

(1) Without authorisation from the appropriate ATS authority;

(2) At or through any level below 18 000 m (60 000 ft) pressure altitude at which:

(i) There are clouds or obscuring phenomena of more than 4 oktas coverage; or

(ii) The horizontal visibility is less than 8 km (5 SM);

(3) By releasing it in a manner that will cause it to fly lower than 300 m (1 000 ft) over the congested areas of cities, towns, or settlements or an open-air assembly of persons not associated with the operation;

(4) Unless it is equipped with at least two payload flight-termination devices or systems, whether automatic or operated by telecommand, that operate independently of each other;

(5) That is polyethylene zero-pressure, unless is it equipped with at least two methods, systems, devices, or combinations thereof, that function independently of each other for terminating the flight of the balloon envelope;

(6) Unless the balloon envelope is equipped with either a radar reflective device(s) or radar reflective material that will present an echo to surface radar operating in the 200 MHz to 2 700 MHz frequency range, and/or the balloon is equipped with such other devices as will permit continuous tracking by the operator beyond the range of ground-based radar;

(7) In an area where ground-based SSR equipment is in use, unless it is equipped with an SSR transponder, with pressure-altitude reporting capability, that is continuously operating on an assigned code or that can be turned on, when necessary, by the tracking station;

(8) In an area where ground-based ADS-B equipment is in use, unless it is equipped with an ADS-B transmitter, with pressure-altitude reporting capability, that is continuously operated or that can be turned on when necessary by the tracking station;

(9) With a trailing antenna that requires a force of more than 230 N to break it at any point, unless the antenna has coloured pennants or streamers that are attached at not more than 15 m intervals;

(10) Below 18 000 m (60 000 ft) pressure-altitude between sunset and sunrise or such other period between sunset and sunrise (corrected to the altitude of operations) as may be prescribed by the appropriate ATS authority, unless the balloon and its attachments and payload, whether or not they become separated during the operation, are lighted; and

(11) That is equipped with a suspension device (other than a highly conspicuously coloured open parachute) more than 15 m (50 ft) long between sunrise and sunset below 18 000 m (60 000 ft) pressure-altitude unless the suspension device is coloured in alternate bands of high conspicuity colours or has coloured pennants attached.

(e) TERMINATION. The operator of an unmanned free balloon shall activate the appropriate termination device:

(1) When it becomes known that weather conditions are less than those prescribed for the operation;

(2) If a malfunction or any other reason makes further operation hazardous to air traffic or to persons or property on the surface; or

(3) Prior to unauthorised entry into the airspace over another State's territory.

(f) PRE-FLIGHT NOTIFICATION.

(1) No person shall operate a medium or heavy unmanned free balloon unless that person has made the following notifications to the appropriate ATS unit:

(i) The pre-flight notification prescribed in paragraph 8.8.1.34(f)(2) of this subsection, which shall be made at least 7 days prior to the flight; and

(ii) Any changes in the pre-launch information, which shall be made no later than:

(A) 6 hours before the estimated time of launch; or

(B) In the case of solar or cosmic disturbance investigations involving a critical time element, 30 minutes before the estimated time of launch.

(2) The pre-flight notification shall contain the following:

(i) Balloon flight identification or project code name;

(ii) Balloon classification and description;

(iii) SSR code, aircraft address, or NDB frequency, as applicable;

(iv) Operator's name and telephone number;

(v) Launch site;

(vi) Estimated time of launch (or time of commencement and completion of multiple launches);

(vii) Number of balloons to be launched and the scheduled interval between launches (if multiple launches);

(viii) Expected direction of ascent;

(ix) Cruising level(s) (pressure altitude);

(x) The estimated elapsed time to pass 18 000 m (60 000 ft) pressure altitude or to reach cruising level if at or below 18 000 m (60 000 ft), together with the estimated location; or, if the operation consists of continuous launchings, the time to be included is the estimated time at which the first and last in the series will reach the appropriate level;

(xi) The estimated date and time of termination of the flight and the planned location of the impact/recovery area:

(A) In the case of balloons carrying out flights of long duration, such that the date and time of termination of the flight and the location of impact cannot be forecast with accuracy, the term "long duration" shall be used;

(B) If there is to be more than one location of impact/recovery, each location is to be listed together with the appropriate estimated time of impact; or

(C) If there is to be a series of continuous impacts, the time to be included is the estimated time of the first and the last in the series.

(g) NOTIFICATION OF LAUNCH. The operator of a medium or heavy unmanned free balloon shall, immediately after launch, notify the appropriate ATS unit of the following:

(1) Balloon flight identification;

(2) Launch site;

(3) Actual time of launch;

(4) Estimated time at which 18 000 m (60 000 ft) pressure altitude will be passed, or the estimated time at which the cruising level will be reached if at or below 18 000 m (60 000 ft), and the estimated location; and

(5) Any changes to the information previously notified in the pre-flight notification information.

(h) NOTIFICATION OF CANCELLATION. The operator shall notify the ATS unit immediately of a cancellation of the launch of a medium or heavy unmanned free balloon for which a pre-flight plan has been filed.

(i) POSITION RECORDING AND REPORTS.

(1) The operator of a heavy unmanned free balloon shall monitor the flight path of the balloon and shall forward reports of the balloon's position to the ATS unit as follows:

(i) For operations at or below 18 000 m (60 000 ft) – every 2 hours;

(ii) For operations above 18 000 m (60 000 ft) – every 24 hours; or

(iii) Immediately, if the tracking of the balloon has been lost, providing:

(A) The balloon's last known position; and

(B) The re-establishment of tracking of the balloon.

(2) One hour before the beginning of the planned descent of a heavy unmanned free balloon, the operator of the balloon shall forward to the ATS unit the following information regarding the balloon:

(i) The current geographical position;

(ii) The current level (pressure altitude);

(iii) The forecast time of penetration of 18 000 m (60 000 ft) pressure altitude, if applicable; and

(iv) The forecast time and location of ground impact.

(3) The operator of a medium or heavy unmanned free balloon shall notify the appropriate ATS unit when the operation is completed.

8.8.2 CONTROL OF AIR TRAFFIC

8.8.2.1 AIR TRAFFIC CONTROL, CLEARANCES

(a) Each PIC shall obtain an ATC clearance before operating a controlled flight, or a portion of a flight as a controlled flight.

(b) Each PIC shall request an ATC clearance, including potential re-clearance in-flight, through the submission of a flight plan to an ATC facility.

(c) Whenever a PIC has requested a clearance involving priority, that PIC shall submit a report explaining the necessity for such priority, if requested by the appropriate ATC facility.

(d) No person operating an aircraft on a controlled aerodrome may taxi on the manoeuvring area or any runway without clearance from the aerodrome control tower.

8.8.2.2 ADHERENCE TO CURRENT AIR TRAFFIC CONTROL CLEARANCES

(a) When an ATC clearance has been obtained, no PIC may deviate from the clearance within the tolerances defined in 8.8.2.5 of this part, except in an emergency, unless he or she obtains an amended clearance.

Note 1: A flight plan may cover only part of a flight, as necessary, to describe that portion of the flight or those manoeuvres which are subject to ATC. A clearance may cover only part of a current flight plan, as indicated in a clearance limit or by reference to specific manoeuvres such as taxiing, landing or taking off.

Note 2: § 8.8.2.2(a) of this subsection does not prohibit a pilot from cancelling an IFR clearance when operating in VMC conditions or cancelling a controlled flight clearance when operating in airspace that does not require controlled flight.

(b) When operating in airspace requiring controlled flight, no PIC may operate contrary to ATC instructions, except in an emergency.

(c) Each PIC who deviates from an ATC clearance or instructions in an emergency, shall notify ATC of that deviation as soon as possible.

8.8.2.3 COMMUNICATIONS

(a) Each person operating an aircraft on a controlled flight shall maintain a continuous air-ground voice communication watch on the appropriate communication channel of, and shall establish two-way communication as required with, the appropriate ATC facility.

(b) Each person operating an aircraft on a controlled flight shall, except when landing at a controlled aerodrome, advise the appropriate ATC facility as soon as it ceases to be subject to ATC service.

Note 1: More specific procedures may be prescribed by the appropriate ATC authority in respect of aircraft forming part of aerodrome traffic at a controlled aerodrome.

Note 2: Automatic signalling devices may be used to satisfy the requirement to maintain a continuous air-ground voice communication watch, if authorised by the Authority.

8.8.2.4 ROUTE TO BE FLOWN

(a) Unless otherwise authorised or directed by the appropriate ATC facility, the PIC of a controlled flight shall, in so far as practicable:

(1) When on an established ATC route, operate along the defined centre line of that route; or

(2) When on any other route, operate directly between the navigation facilities and/or points defining that route.

(b) The PIC of a controlled flight operating along an ATC route defined by reference to VORs shall change over for primary navigation guidance from the facility behind the aircraft to that ahead of it at, or as close as operationally feasible to, the change-over point, where established.

Note: These requirements do not prohibit manoeuvring the aircraft to pass well clear of other air traffic or the manoeuvring of the aircraft in VFR conditions to clear the intended flight path both before and during climb or descent.

8.8.2.5 DEVIATIONS FROM CURRENT FLIGHT PLAN

(a) A PIC shall take the following action in the event that a controlled flight inadvertently deviates from its current flight plan:

(1) DEVIATION FROM TRACK. If the aircraft is off track, the PIC shall adjust the heading of the aircraft to regain track as soon as practicable.

(2) DEVIATION FROM ATC-ASSIGNED MACH NUMBER/INDICATED AIRSPEED. The appropriate ATS unit shall be informed immediately.

(3) DEVIATION FROM MACH NUMBER/TRUE AIRSPEED. Each PIC shall inform the appropriate ATC facility if the average Mach number/true airspeed at cruising level between reporting points varies from that given in the flight plan, or is expected to vary by plus or minus Mach 0.02 or more or plus or minus 19 km/h (10 kt) true airspeed or more from the current flight plan.

(4) CHANGE IN TIME ESTIMATE. Each PIC shall notify the appropriate ATC facility and give a revised estimated time as soon as possible if the time estimate for a reporting point, flight information region boundary, or destination aerodrome, whichever comes first, changes in excess of 2 minutes from that previously notified to ATC, or such other period of time as is prescribed by the appropriate ATC authority or on the basis of Regional Air Navigation Agreements, except where ADS-C is activated and serviceable in airspace where provided.

(b) When ADS-C services are provided and ADS-C is activated, the ATS unit shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the ADS event contract.

8.8.2.6 AIR TRAFFIC CONTROL CLEARANCE— CHANGE REQUESTS

(a) Requests for current flight plan changes shall include the following information:

(1) CHANGE OF CRUISING LEVEL. Aircraft identification, requested new cruising level and cruising Mach number/true airspeed at this level; and revised time estimates, when applicable, at subsequent reporting points or flight information region boundaries

(2) CHANGE OF MACH NUMBER/TRUE AIRSPEED. Aircraft identification; requested Mach number/true airspeed.

(3) CHANGE OF ROUTE.

(i) DESTINATION UNCHANGED. Aircraft identification, flight rules; description of new route of flight including related flight plan data beginning with the position from which the requested change of route is to commence; revised time estimates, and any other pertinent information.

(ii) DESTINATION CHANGE. Aircraft identification; flight rules; description of revised route of flight to revised destination aerodrome including related flight plan data, beginning with the position from which the requested change of route is to commence; revised time estimates; alternate aerodrome(s); and any other pertinent information.

8.8.2.7 POSITION REPORTS

(a) Each pilot of a controlled flight shall report to the appropriate ATC facility, as soon as possible, the time and level of passing each designated compulsory reporting point, together with any other required information, unless exempted from this requirement by the appropriate ATC Authority.

(b) Each pilot of a controlled flight shall make position reports in relation to additional points or intervals when requested by the appropriate ATC facility.

(c) When operating via data link communications providing position information to the appropriate ATS unit, each pilot of a controlled flight shall only provide voice position reports when requested by the appropriate ATC facility.

8.8.2.8 OPERATIONS ON OR IN THE VICINITY OF A CONTROLLED AERODROME

(a) No person may operate an aircraft to, from, through, or on an aerodrome having an operational control tower unless two-way communications are maintained between that aircraft and the control tower.

(b) On arrival, each PIC shall establish communications required by paragraph 8.8.2.8(a) of this subsection prior to 7.4 km (4 NM) from (a) prior to 18,5 km (10 nautical miles) from the Aerodrome Traffic Zone when operating from the surface up to and including 760 m (2500 ft).

(c) On departure, each PIC shall establish communications with the control tower before taxi.

(d) Take-off, landing, taxi clearance. No person may, at any aerodrome with an operating control tower, operate an aircraft on a runway or taxiway or take-off or land an aircraft, unless an appropriate clearance has been received by ATC.

Note: A clearance to "taxi to" the take-off runway is not a clearance to cross or taxi on to that runway. It does authorise the PIC to cross other runways during the taxi to the assigned runway. A clearance to "taxi to" any other point on the aerodrome is a clearance to cross all runways that intersect the taxi route to the assigned point.

(e) COMMUNICATIONS FAILURE. If the radio fails or two-way communication is lost, a PIC may continue a VFR flight operation and land if:

(1) The weather conditions are at or above basic VFR minimums; and

(2) Clearance to land from the ATC tower is given in accordance with the universal light signals and acknowledged by the PIC as prescribed in IS 8.8.2.11(e) and (f) for light signals and acknowledgement.

Note: During IFR operations, the two-way communications failure procedures prescribed in 8.8.4.19 of this part will apply.

8.8.2.9 UNLAWFUL INTERFERENCE

(a) A PIC shall, when and if possible, notify the appropriate ATC facility when an aircraft is being subjected to unlawful interference, including:

(1) Any significant circumstances associated with the unlawful interference, and

(2) Any deviation from the current flight plan necessitated by the circumstances.

(b) When an aircraft is subjected to unlawful interference, the PIC shall attempt to land as soon as practicable at:

(1) The nearest suitable aerodrome, or

(2) A dedicated aerodrome assigned by the appropriate Authority unless considerations aboard the aircraft dictate otherwise.

8.8.2.10 TIME CHECKS

(a) Each PIC shall use UTC, expressed in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight, in flight operations.

(b) Each PIC shall obtain a time check before operating a controlled flight and at such other times during the flight as may be necessary.

(c) Whenever time is used in the application of data link communications, it shall be accurate to within 1 second of UTC.

Note: The time check in paragraph 8.8.2.10(b) of this subsection is normally obtained from an ATS unit unless other arrangements have been made by the operator or by the appropriate ATC authority.

8.8.2.11 UNIVERSAL AVIATION SIGNALS

(a) Upon observing or receiving any of the designated universal aviation signals prescribed in IS: 8.8.2.11 and IS: 8.8.1.28, each person operating an aircraft shall take such action as may be required by the interpretation of the signal.

(b) The universal aviation signals shall have only the meaning indicated in the IS

(c) Each person using universal signals in the movement of aircraft shall only use them only for the purpose indicated.

(d) No person may use signals likely to cause confusion with universal aviation signals.

8.8.2.12 SIGNALMAN

(a) No person shall guide an aircraft unless trained, qualified and approved by the Authority to carry out the functions of a signalman.

(b) The signalman shall wear a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation.

(c) The signalman shall use the marshalling equipment prescribed in paragraph 8.8.1.1(c) of this part.

8.8.3 VISUAL FLIGHT RULES

8.8.3.1 VISUAL METEOROLOGICAL CONDITIONS

(a) No person may operate an aircraft under VFR when the flight visibility is less than, or at a distance from the clouds that is less than that prescribed, or the corresponding altitude and class of airspace in the following table

Airspace and VMC Minimums*			
Airspace Class	**A***B C D E**	**F G**	
		Above 900 m (3,000 ft) AMSL or above 300 m (1,000 ft) above terrain, whichever is the higher	At and below 900 m (3,000 ft) AMSL or 300 m (1,000 ft) above terrain, whichever is the higher
Distance from cloud	1500 m (4,920 ft) horizontally 300 m (1,000 ft) vertically		Clear of cloud and in sight of the surface
Flight visibility	8 km (5 SM) at and above 3,050 m (10,000 ft) AMSL 5 km (3 SM) below 3,050 m (10,000 ft) AMSL		5 km (3 SM) **
*When the height of the transition altitude is lower than 3,050 m (10,000 ft) AMSL, FL100 shall be used in lieu of 10,000 ft.			
** When so prescribed by the appropriate ATC authority lower flight visibilities to 1,500 m (4,920 ft) may be permitted for flights operating: at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or in circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels. Helicopters may be permitted to operate in less than 1,500 m (4,920 ft) flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.			
***The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace. ICAO Annex 2: 3.9; 4.1 FR 91.155(a)			

8.8.3.2 VISUAL FLIGHT RULES WEATHER MINIMUMS FOR TAKE-OFF AND LANDING

(a) No person may land or take-off an aircraft under VFR from an aerodrome located within a control zone, or enter the aerodrome traffic zone or traffic pattern airspace unless the:

(1) Reported ceiling is at least 450 m (1,500 ft); and

(2) Reported ground visibility is at least 5 km (3 SM); or

(3) Except when a clearance is obtained from ATC.

(b) No person may land or take-off an aircraft or enter the traffic pattern under VFR from an aerodrome located outside a control zone, unless VMC conditions are at or above those indicated in Subsection 8.8.3.1 of this part.

(c) The only exception to the required weather minimums of this subsection is during a special VFR operation.

8.8.3.3 SPECIAL VISUAL FLIGHT RULES OPERATIONS

(a) No person may conduct a special VFR flight operation to enter the traffic pattern, land or take-off an aircraft under special VFR from an aerodrome located in Class B, Class C, Class D or Class E airspace unless:

(1) Authorised by an ATC clearance;

(2) The aircraft remains clear of clouds; and

(3) The flight visibility is at least 1.5 km (1 SM).

(b) No person may conduct a special VFR flight operation in an aircraft between sunset and sunrise unless:

(1) The PIC is current and qualified for IFR operations; and

(2) The aircraft is qualified to be operated for IFR flight.

8.8.3.4 VISUAL FLIGHT RULES CRUISING ALTITUDES

(a) Each person operating an aircraft in level cruising flight under VFR at altitudes above 900 m (3,000 ft) from the ground or water, shall maintain an FL appropriate to the track as specified in the tables of cruising levels prescribed in IS: 8.8.3.4.

(b) Paragraph 8.8.3.4(a) of this subsection does not apply when otherwise authorised by ATC, when operating in a holding pattern, or during manoeuvring in turns.

8.8.3.5 AIR TRAFFIC CONTROL CLEARANCES FOR VISUAL FLIGHT RULES FLIGHTS

(a) Each pilot of a VFR flight shall obtain and comply with ATC clearances and shall maintain an air-ground voice communication watch before and during operations:

(1) Within Class B, Class C, and Class D airspace;

(2) As part of aerodrome traffic at controlled aerodromes; and

(3) Under special VFR.

8.8.3.6 VISUAL FLIGHT RULES FLIGHTS REQUIRING AIR TRAFFIC CONTROL AUTHORISATION

(a) Unless authorised by the appropriate ATC Authority, no pilot may operate in VFR flight:

(1) Above FL 200; or

(2) At transonic and supersonic speeds.

(b) ATC authorisation for VFR flights may not be granted in areas where a VSM of 300 m (1,000 ft) is applied above FL 290.

(c) No person may operate in VFR flight between sunset and sunrise unless:

(1) Authorised by the appropriate ATC authority, and

(2) Operating in accordance with any conditions prescribed by the Authority.

8.8.3.7 WEATHER DETERIORATION BELOW VISUAL METEOROLOGICAL CONDITIONS

(a) Each pilot of a VFR flight operated as a controlled flight shall, when he or she finds it is not practical or possible to maintain flight in VMC in accordance with the ATC flight plan:

(1) Request an amended clearance enabling the aircraft to continue in VMC to its destination or to an alternative aerodrome, or to leave the airspace within which an ATC clearance is required;

(2) If no clearance can be obtained, continue to operate in VMC and notify the appropriate ATC facility of the action being taken either to leave the airspace concerned or to land at the nearest suitable aerodrome;

(3) Operating within a control zone, request authorisation to operate as a special VFR flight; or

(4) Request clearance to operate in IFR, if currently rated for IFR operations.

8.8.3.8 CHANGING FROM VISUAL FLIGHT RULES TO INSTRUMENT FLIGHT RULES

(a) Each pilot operating in VFR who wishes to change to IFR shall:

(1) If a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan; or

(2) Submit a flight plan to the appropriate ATC facility and obtain a clearance before proceeding IFR when in controlled airspace.

8.8.3.9 TWO-WAY RADIO COMMUNICATION FAILURE IN VISUAL FLIGHT RULES

(a) COMMUNICATIONS FAILURE – GENERAL.

(1) In the event of a communications failure, the pilot shall attempt to establish communications with the appropriate air ATC using all other available means; and

(2) In addition, the pilot shall, when forming part of the aerodrome traffic at a controlled aerodrome, keep a watch for such instructions as may be issued by visual signals.

(b) If communication failure occurs in VMC while under ATC control, or if VMC conditions are encountered after the failure, each pilot shall:

(1) Continue the flight under VMC;

(2) Land at the nearest suitable aerodrome; and

(3) Report arrival to the appropriate ATC services unit by the most expeditious means possible.

8.8.4 INSTRUMENT FLIGHT RULES

8.8.4.1 INSTRUMENT FLIGHT PROCEDURES

(a) All aircraft operated in accordance with instrument flight procedures shall comply with the IFR and the aerodrome IAPs approved by the State where the operation will take place.

Note: Information for pilots on flight procedure parameters and operational procedures is contained in ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume I. Criteria for the construction of visual and instrument flight procedures are contained in ICAO DOC 8168, PANS-OPS, Volume II. Obstacle clearance criteria and procedures used in certain States may differ from PANS-OPS, and knowledge of these differences is important for safety reasons.

8.8.4.2 INSTRUMENT FLIGHT RULES IN CONTROLLED AIRSPACE

(a) No person may operate an aircraft in controlled airspace under IFR unless that person has:

(1) Filed an IFR flight plan; and

(2) Received an appropriate ATC clearance.

8.8.4.3 INSTRUMENT FLIGHT RULES FLIGHTS OUTSIDE CONTROLLED AIRSPACE

(a) Each PIC of an IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the appropriate ATC authority shall maintain an air-ground voice communication watch on the appropriate communication channel and shall establish two-way communication, as necessary, with the ATC facility providing flight information service.

(b) Each PIC of an IFR flight operating outside controlled airspace and required by the appropriate ATC authority to submit a flight plan, maintain an air-ground voice communication watch on the appropriate communication channel, and establish two-way communication, as necessary, with the ATC facility providing flight information service, shall report position as specified for controlled flights.

8.8.4.4 INSTRUMENT FLIGHT RULES TAKE-OFF MINIMUMS FOR COMMERCIAL AIR TRANSPORT

(a) Unless otherwise authorised by the Authority, no pilot operating an aircraft in commercial air transport operations may accept a clearance to take-off from a civil aerodrome under IFR unless weather conditions are at or above:

(1) For aircraft, other than helicopters, having two engines or less—1,500 m (1 SM) visibility.

(2) For aircraft having more than two engines—800 m (1/2 SM) visibility.

(3) For helicopters—800 m (1/2 SM) visibility

8.8.4.5 MINIMUM ALTITUDES FOR INSTRUMENT FLIGHT RULES OPERATIONS

(a) Operation of aircraft at minimum altitudes. Except when necessary for take-off or landing, no person may operate an aircraft under IFR below:

(1) The applicable minimum altitudes prescribed by the authorities having jurisdiction over the airspace being overflown; or

(2) If no applicable minimum altitude is prescribed by the authorities:

(i) Over high terrain or in mountainous areas, at a level which is at least 600 m (2,000 ft) above the highest obstacle located within 8 km (5 SM) of the estimated position of the aircraft; and

(ii) Elsewhere than as specified in paragraph (i), at a level which is at least 300 m (1,000 ft) above the highest obstacle located within 8 km (5 SM) of the estimated position of the aircraft.

(3) If an MEA and a MOCA are prescribed for a particular route or route segment, a person may operate an aircraft below the MEA down to, but not below, the MOCA, when within 40.7 km (22 NM) of the VOR concerned.

(b) Climb for obstacle clearance.

(1) If unable to communicate with ATC, each pilot shall climb to a higher minimum IFR altitude immediately after passing the point beyond which that minimum altitude applies

(2) If ground obstructions intervene, each pilot shall climb to a point beyond which that higher minimum altitude applies, at or above the applicable Minimum Crossing Altitude.

8.8.4.6 MINIMUM ALTITUDES FOR USE OF AN AUTOPILOT

(a) For en-route operations, no person may use an autopilot at an altitude above the terrain that is less than 152 m (500ft).

Note: If the maximum altitude loss specified in the Aircraft Flight Manual for a malfunction under cruise conditions when multiplied by two is more than 152 m (500 ft), then it becomes the controlling minimum altitude for use of the autopilot.

(b) For instrument approach operations, no person may use an autopilot at an altitude above the terrain that is less than 15 m (50 ft) below the MDA or DH.

Note: If the maximum altitude loss specified in the AFM for a malfunction under approach conditions when multiplied by two is more than 15 m (50 ft), then it becomes the controlling minimum altitude for use of the autopilot.

(c) For CAT III approaches, the Authority may approve the use of a flight control guidance system with automatic capability to touchdown.

8.8.4.7 INSTRUMENT FLIGHT RULES CRUISING ALTITUDE OR FLIGHT LEVEL IN CONTROLLED AIRSPACE

(a) Each person operating an aircraft under IFR in level cruising flight in controlled airspace shall maintain the altitude or FL assigned to that aircraft by ATC.

(b) Each person operating an aircraft in level cruising flight under IFR, or if authorised to employ cruise climb techniques between two levels, shall maintain a FL appropriate to the track as specified in the tables of cruising levels prescribed in IS: 8.8.3.4 or according to a modified table of cruising levels when so prescribed in accordance with IS: 8.8.3.4 for flight above FL 410.

(c) Paragraph (c) above does not apply when otherwise authorised by ATC or specified by the appropriate ATC authority in AIPs.

Note: The requirements for VFR cruising altitudes are in Subsection 8.8.3.4.

8.8.4.8 INSTRUMENT FLIGHT RULES CRUISING ALTITUDE OR FLIGHT LEVEL IN UNCONTROLLED AIRSPACE

(a) Each person operating an aircraft in level cruising flight under IFR, outside of controlled airspace, shall maintain an FL appropriate to the track as specified in the table of cruising levels prescribed in IS: 8.8.3.4 or according to a modified table of cruising levels when so prescribed in accordance with IS: 8.8.3.4 for flight above FL 410.

(b) A person may deviate from the cruising altitudes specified in paragraph (a) only when:

(1) Authorised by ATC for flight at or below 900 m (3,000 ft) above MSL; or

(2) When otherwise authorised by ATC.

8.8.4.9 INSTRUMENT FLIGHT RULES RADIO COMMUNICATIONS

(a) Each PIC of an aircraft operated under IFR in controlled airspace shall have a continuous watch maintained on the appropriate frequency and shall report by radio as soon as possible:

(1) The time and altitude of passing each designated reporting point, or the reporting points specified by ATC, except that while the aircraft is under radar control, only the passing of those reporting points specifically requested by ATC need be reported;

(2) Any unforecasted weather conditions encountered; and

(3) Any other information relating to the safety of flight, such as hazardous weather or abnormal radio station indications.

8.8.4.10 OPERATION UNDER INSTRUMENT FLIGHT RULES IN CONTROLLED AIRSPACE—MALFUNCTION REPORTS

(a) The PIC of each aircraft operated in controlled airspace under IFR shall report as soon as practical to ATC any malfunctions of navigational, approach, or communication equipment occurring in flight.

(b) In each report specified in paragraph (a), the PIC shall include the:

(1) Aircraft identification;

(2) Equipment affected;

(3) Degree to which the capability of the pilot to operate under IFR in the ATC system is impaired; and

(4) Nature and extent of assistance desired from ATC.

8.8.4.11 CONTINUATION OF INSTRUMENT FLIGHT RULES FLIGHT TOWARD A DESTINATION

(a) No pilot may continue an IFR flight toward an aerodrome or heliport of intended landing, unless the latest available meteorological information indicates that the conditions at that aerodrome, or at least one destination alternate aerodrome will, at the expected time of arrival, be at or above the specified instrument approach minima.

8.8.4.12 INSTRUMENT APPROACH PROCEDURES AND INSTRUMENT FLIGHT RULES LANDING MINIMUMS

(a) No person may make an instrument approach at an aerodrome except in accordance with IFR weather minimums and IAPs established for that aerodrome as set forth by the Authority.

(b) No AOC holder may make an instrument approach at an aerodrome except as set forth in the AOC holder's operations specifications.

8.8.4.13 COMMENCING AN INSTRUMENT APPROACH—COMMERCIAL AIR TRANSPORT

(a) No pilot may continue an approach below 300 m (1,000 ft.) above the aerodrome elevation or into the FAS unless:

(1) A source approved by the Authority issues a weather report for that aerodrome; and

(2) The latest weather report for that aerodrome reports the visibility or controlling RVR to be equal to or more than the minimums prescribed for that procedure; and

(3) The given available runway surface condition information and the aeroplane performance information indicates that a safe landing can be made.

(b) If a pilot begins the FAS of an IAP and subsequently receives a weather report indicating below-minimum conditions, the pilot may continue the approach to DH or MDA.

Note 1: For the purpose of this subsection, the FAS begins at the final approach fix or facility prescribed in the IAP. When a final approach fix is not prescribed for a procedure that includes a procedure turn, the FAS begins at the point where the procedure turn is completed and the aircraft is established inbound toward the aerodrome on the final approach course within the distance prescribed in the procedure.

Note 2: Criteria for the FAS is contained in ICAO Doc 8168, PANS-OPS, Volume II.

Note 2: Controlling RVR means the reported values of one or more RVR reporting locations (touchdown, mid-point and stop-end) used to determine whether operating minima are or are not met. Where RVR is used, the controlling RVR is the touchdown RVR, unless otherwise specified by State criteria.

Note 4: The procedures used by aerodromes to assess and report runway surface conditions are contained in ICAO Doc 9981, PANS-Aerodromes, and those for using runway surface condition information on board aircraft in the Aeroplane Performance Manual ICAO Doc 10064.

Note 5: Guidance on development of aeroplane performance information is contained in ICAO Doc 10064, Aeroplane Performance Manual.

8.8.4.14 INSTRUMENT APPROACHES TO CIVIL AERODROMES

(a) Each person operating a civil aircraft shall use a standard IAP prescribed by the authorities having jurisdiction over the aerodrome, unless otherwise authorised by the Authority.

(b) Authorised DH or MDA. For the purpose of this section, when the approach procedure being used provides for and requires the use of a DH or MDA, the authorised DH or MDA is the highest of the following:

(1) The DH or MDA prescribed by the approach procedure.

(2) The DH or MDA prescribed for the PIC.

(3) The DH or MDA for which the aircraft is equipped

8.8.4.15 OPERATION BELOW DECISION HEIGHT OR MINIMUM DESCENT ALTITUDE

(a) Where a DH or MDA is applicable, no pilot may operate a civil aircraft at any aerodrome or heliport below the authorised MDA, or continue an approach below the authorised DH unless:

(1) The aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres;

(2) For commercial air transport operations, a descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;

(3) The reported flight visibility is not less than the visibility prescribed in the standard instrument approach being used or the controlling RVR is above the specified minimum; and

(4) At least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

(i) The approach light system, except that the pilot may not descend below 30 m (100 ft) above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable.

(ii) The threshold;

(iii) The threshold markings;

(iv) Threshold lights;

(v) The runway end identifier lights;

(vi) The visual approach slope indicator;

(vii) The touchdown zone or touchdown zone markings;

(viii) The touchdown zone lights;

(ix) The runway or runway markings; or

(x) The runway lights.

Note 1: Controlling RVR means the reported values of one or more RVR reporting locations (touchdown, mid-point and stop-end) used to determine whether operating minima are or are not met. Where RVR is used, the controlling RVR is the touchdown RVR, unless otherwise specified by Curaçao criteria.

Note 2: The visual references above do not apply to CAT II and CAT III operations. The required visual references under CAT II and CAT III operations are stated in the AOC holder's approved operations specifications or in a special authorisation prescribed by the Authority.

8.8.4.16 LANDING DURING INSTRUMENT METEOROLOGICAL CONDITIONS

(a) No pilot operating a civil aircraft may land that aircraft when the flight visibility is less than the visibility prescribed in the standard IAP being used.

8.8.4.17 EXECUTION OF A MISSED APPROACH PROCEDURE

(a) Each pilot operating a civil aircraft shall immediately execute an appropriate missed approach procedure when either of the following conditions exists:

(1) Whenever the required visual reference criteria is not met in the following situations:

(i) When the aircraft is being operated below MDA; or

(ii) Upon arrival at the missed approach point, including a DH where a DH is specified and its use is required, and at any time after that until touchdown.

(2) Whenever an identifiable part of the aerodrome is not distinctly visible to the pilot during a circling manoeuvre at or above MDA, unless the inability to see an identifiable part of the aerodrome results only from a normal bank of the aircraft during the circling approach.

8.8.4.18 CHANGE FROM INSTRUMENT FLIGHT RULES FLIGHT TO VISUAL FLIGHT RULES FLIGHT

(a) A pilot electing to change from IFR flight to VFR flight shall notify the appropriate ATC facility specifically that the IFR flight is cancelled and then communicate the changes to be made to his or her current flight plan.

(b) When a pilot operating under IFR encounters VMC, he or she may not cancel the IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted VMC.

8.8.4.19 TWO-WAY RADIO COMMUNICATIONS FAILURE IN INSTRUMENT FLIGHT RULES

(a) Communications Failure: General

(1) In the event of communications failure, the pilot shall attempt to establish communications with the appropriate ATC unit using all other available means.

(2) In addition, the pilot shall, when forming part of the aerodrome traffic at a controlled aerodrome, shall keep a watch for such instructions as may be issued by visual signals.

(b) If radio failure occurs in VMC while under ATC control, or if VMC conditions are encountered after the failure, each pilot shall:

(1) Continue the flight under VMC;

(2) Land at the nearest suitable aerodrome; and

(3) Report arrival to the appropriate ATC services unit by the most expeditious means possible.

(c) If two-way radio communication failure occurs in IMC, or when the pilot of an IFR flight considers it inadvisable to continue the flight in VMC, the PIC shall:

(1) unless otherwise prescribed on the basis of regional air navigation agreement, in airspace where radar is not used in the provision of ATC, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 20 minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan;

(2) in airspace where radar is used in the provision of ATC, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following:

(i) The time the last assigned level or minimum flight altitude is reached; or

(ii) The time the transponder is set to Code 7600; or

(iii) The aircraft's failure to report its position over a compulsory reporting point; whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan;

(3) when being radar vectored or having been directed by ATC to proceed offset using RNAV without a specified limit, re-join the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

(4) proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with (5) below, hold over this aid or fix until commencement of descent;

(5) commence descent from the navigation aid of fix specified in (4) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to the ETA resulting from the current flight plan;

(6) Complete a normal IAP as specified for the designated navigation aid or fix; and

(7) land, if possible, within 30 minutes after ETA specified in (5) or the last acknowledged expected approach time, whichever is later.

8.8.4.20 THRESHOLD CROSSING HEIGHT FOR 3D INSTRUMENT APPROACH OPERATIONS

(a) An operator shall establish operational procedures designed to ensure that an aeroplane being used to conduct 3D instrument approach operations crosses the threshold by a safe margin with the aeroplane in the landing configuration and attitude.

8.9 PASSENGERS AND PASSENGER HANDLING

8.9.1 ALL PASSENGER CARRYING OPERATIONS

8.9.1.1 UNACCEPTABLE CONDUCT

(a) No person on board may interfere with a crew member in the performance of his or her duties.

(b) Each passenger shall fasten his or her seat belt and keep it fastened while the seat belt sign is lighted.

(c) No person on board an aircraft shall recklessly or negligently act or omit to act in such a manner as to endanger the aircraft or persons and property therein.

(d) No person may secrete himself or herself nor secrete cargo on board an aircraft.

(e) No person may smoke while the no-smoking sign is lighted.

(f) No person may smoke in any aeroplane lavatory.

(g) No person may tamper with, disable or destroy any smoke detector installed in any aeroplane lavatory.

8.9.1.2 REFUELLING OR DEFUELLING WITH PASSENGERS ON BOARD

(a) No PIC may allow an aeroplane to be refuelled when passengers are embarking, on board or disembarking unless:

(1) The aeroplane is manned by qualified personnel ready to initiate and direct an evacuation; and

(2) Two-way communication is maintained between the qualified personnel in the aeroplane and the ground crew supervising the refuelling.

(b) HELICOPTERS. No PIC may allow a helicopter to be refuelled or defuelled, or to have oxygen replenished, when passengers are embarking or disembarking or when refuelling with aviation gasoline or wide-cut type fuel or a mixture of these types of fuel unless:

(1) The helicopter is manned by qualified personnel ready to initiate and direct an evacuation; and

(2) Two-way communication is maintained between the qualified personnel in the helicopter and the ground crew supervising the refuelling.

(c) HELICOPTERS: A PIC may allow a helicopter to be refuelled with passengers on board, rotors stopped or turning, if:

(1) The helicopter is manned by qualified personnel who have briefed passengers on actions to take if an incident occurs, ready to initiate and direct an evacuation;

(2) Two-way communication is maintained between the qualified personnel in the helicopter and the ground crew supervising the refuelling; and

(3) During an emergency shutdown procedure, the flight crew shall ensure that any personnel or passengers outside the helicopter are clear of the rotor area.

Note1: Caution needs to be exercised when using radios for this purpose due to the potential for stray currents and radio-induced voltages.

Note 2: Provisions concerning aircraft refuelling are contained in Annex 14, Volume I, and guidance on safe refuelling practices is contained in ICAO Doc 9137, Airport Services Manual, Parts 1 and 8.

Note 3: Additional precautions are required when refuelling with fuels other than aviation kerosene or when refuelling results in a mixture of aviation kerosene with other aviation turbine fuels, or when an open line is used.

8.9.1.3 PASSENGER SEATS, SAFETY BELTS, AND SHOULDER HARNESSES

(a) The PIC shall ensure that each person on-board occupies an approved seat or berth with their own individual safety belt and shoulder harness (if installed) properly secured about them during take-off and landing.

(b) Each passenger shall have his or her seatbelt securely fastened at any other time the PIC determines it is necessary for safety.

(c) A safety belt provided for the occupant of a seat may not be used during take-off and landing by more than one person who has reached his or her second birthday.

Note: When cabin crew members are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted before take-off.

8.9.1.4 PASSENGER BRIEFING

(a) The PIC shall ensure that crew members and passengers are made familiar, by means of an oral briefing or by other means, with the location and use of the following items, if appropriate:

(1) Seat belts;

(2) Emergency exits;

(3) Life jackets;

(4) Oxygen dispensing equipment if the use of oxygen is anticipated; and

(5) Other emergency equipment provided for individual use, including passenger emergency briefing cards.

(b) The PIC shall ensure that all persons on board:

(1) are aware of the locations and general manner of use of the principal emergency equipment carried for collective use.

(2) are briefed about all subjects for the specific operations conducted by a commercial air transport operation and are included in the pertinent OM, as approved by the Authority

(3) For helicopter specific - are briefed on the actions to take if an incident occurs when a helicopter is refuelled or replenished with oxygen when passengers are onboard.

Note: When cabin crew members are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted before take-off.

(c) During take-off and landing, and whenever by reason of turbulence or any emergency occurring during flight the precaution is considered necessary, cabin crew members shall ensure that all passengers aboard the aircraft fasten their seat belts so as to be secured in their seats.

(d) For helicopter off-shore operations, the PIC shall ensure that each occupant of the aircraft wear:

(1) A life jacket or integrated survival suit, when operating beyond autorotational distance from land;

(2) A survival suit, when the sea temperature is less than 10˚C or when the estimated rescue time exceeds the calculated survival time.

8.9.1.5 INFLIGHT EMERGENCY INSTRUCTION

(a) In an emergency during flight, the PIC shall ensure that all persons on board are instructed in such emergency action as may be appropriate to the circumstances.

(b) When cabin crew members are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted.

8.9.1.6 PASSENGER OXYGEN—MINIMUM SUPPLY AND USE

(a) The PIC shall ensure that breathing oxygen and masks are available to passengers in sufficient quantities for all flights at such altitudes where a lack of oxygen might harmfully affect passengers.

(b) The PIC shall ensure that the minimum supply of oxygen prescribed by the Authority is on board the aircraft.

Note: The requirements for oxygen storage and dispensing apparatus are prescribed in Part 7.

(c) The PIC shall require all passengers to use oxygen continuously at cabin pressure altitudes above 4000 m (13,000 ft).

8.9.1.7 ALCOHOL OR DRUGS

(a) No person may permit the boarding or serving of any person who appears to be intoxicated or who demonstrates, by manner or physical indications, that that person is under the influence of drugs (except a medical patient under proper care).

8.9.2 COMMERCIAL AIR TRANSPORT PASSENGER CARRYING OPERATIONS

8.9.2.1 PASSENGER COMPLIANCE WITH INSTRUCTIONS

(a) Each passenger on a commercial air transport flight shall comply with instructions given by a crew member in compliance with this section.

8.9.2.2 DENIAL OF TRANSPORTATION

(a) An AOC holder may deny transportation because a passenger:

(1) Refuses to comply with the instructions regarding exit seating restrictions prescribed by the Authority; or

(2) Has a handicap that can be physically accommodated only by an exit row seat.

8.9.2.3 CARRIAGE OF PERSONS WITHOUT COMPLIANCE WITH THESE PASSENGER-CARRYING REQUIREMENTS

(a) The passenger-carrying requirements of paragraph (b) do not apply when carrying:

(1) A crew member not required for the flight;

(2) A representative of the Authority on official duty;

(3) A person necessary to the safety or security of cargo or animals; or

(4) Any person authorised by the AOC holder's OM procedures, as approved by the Authority.

(b) No person may be carried without compliance to the passenger carrying requirements unless:

(1) There is an approved seat with an approved seat belt for that person;

(2) That seat is located so that the occupant is not in any position to interfere with the flight crew members performing their duties;

(3) There is unobstructed access from their seat to the flight deck or a regular or emergency exit;

(4) There is a means for notifying that person when smoking is prohibited and when seat belts shall be fastened; and

(5) That person has been orally briefed by a crew member on the use of emergency equipment and exits.

8.9.2.4 CABIN CREW AT DUTY STATIONS

(a) During taxi, cabin crew members shall remain at their duty stations with safety belts and shoulder harness fastened except to perform duties related to the safety of the aircraft and its occupants.

(b) During take-off and landing, cabin crew members shall be located as near as practicable to required floor level exits and shall be uniformly distributed throughout the aircraft to provide the most effective egress of passengers in event of an emergency evacuation.

(c) When passengers are on board a parked aircraft, cabin crew members (or another person qualified in emergency evacuation procedures for the aircraft) will be placed in the following manner:

(1) If only one qualified person is required, that person shall be located in accordance with the AOC holder's OM procedures.

(2) If more than one qualified person is required, those persons shall be spaced throughout the cabin to provide the most effective assistance for the evacuation in case of an emergency.

8.9.2.5 EVACUATION CAPABILITY

(a) The PIC, SCCM and other person assigned by the AOC holder shall ensure that, when passengers are on board the aircraft before movement on the surface, at least one floor-level exit provides for egress of passengers through normal or emergency means.

8.9.2.6 ARMING OF AUTOMATIC EMERGENCY EXITS

(a) No person may cause an aeroplane carrying passengers to be moved on the surface, take-off or land unless each automatically deployable emergency evacuation assisting means installed on the aircraft is ready for evacuation.

8.9.2.7 ACCESSIBILITY OF EMERGENCY EXITS AND EQUIPMENT

(a) No person may allow carry-on baggage or other items to block access to the emergency exits when the aircraft is moving on the surface, during take-off or landing, or while passengers remain on board on the ground.

8.9.2.8 STOPS WHERE PASSENGERS REMAIN ON BOARD

(a) At stops where passengers remain on board the aircraft, the PIC, the CP, or both shall ensure that:

(1) All engines are shut down;

(2) At least one floor level exit remains open to provide for the deplaning of passengers; and

(3) There is at least one person immediately available who is qualified in the emergency evacuation of the aircraft and who has been identified to the passengers on board as responsible for the passenger safety.

(b) If refuelling with passengers on board, the PIC or a designated company representative shall ensure that the AOC holder's OM procedures are followed.

8.9.2.9 PASSENGER LOADING AND UNLOADING - AOC

(a) No person shall allow passenger loading or unloading of a propeller driven aircraft unless all engines are shut down unless the aircraft is using a passenger jetway to load and unload.

8.9.2.10 CARRIAGE OF PERSONS WITH REDUCED MOBILITY

(a) No person may allow a person of reduced mobility to occupy seats where their presence could:

(1) Impede the crew in their duties;

(2) Obstruct access to emergency equipment; or

(3) Impede the emergency evacuation of the aircraft.

8.9.2.11 EXIT ROW SEATING

(a) No AOC holder shall allow a passenger to sit in an emergency exit row if the PIC or SCA determine that it is likely that the passenger would be unable to understand and perform the functions necessary to open an exit and to exit rapidly.

(b) No cabin crew member may seat a person in a passenger exit seat if it is likely that the person would be unable to perform one or more of the applicable functions listed below:

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs:

(i) To reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;

(ii) To grasp and push, pull, turn, or otherwise manipulate those mechanisms;

(iii) To push, shove, pull, or otherwise open emergency exits;

(iv) To lift out, hold, deposit on nearby seats, or manoeuvre over the seatbacks to the next row objects the size and mass of over-wing window exit doors;

(v) To remove obstructions of size and mass similar to over-wing exit doors;

(vi) To reach the emergency exit expeditiously;

(vii) To maintain balance while removing obstructions;

(viii) To exit expeditiously;

(ix) To stabilise an escape slide after deployment; or

(x) To assist others in getting off an escape slide.

(2) The person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed above without the assistance of an adult companion, parent, or other relative.

(3) The person lacks the ability to read and understand instructions required by this section and related to emergency evacuation provided by the AOC holder in printed or graphic form or the ability to understand oral crew commands.

(4) The person lacks sufficient visual capacity to perform one or more of the above functions without the assistance of visual aids beyond contact lenses or eyeglasses.

(5) The person lacks sufficient aural capacity to hear and understand instructions shouted by cabin crew members, without assistance beyond a hearing aid.

(6) The person lacks the ability to adequately impart information orally to other passengers.

(7) The person has a condition or responsibilities, such as caring for small children, that might prevent the person from performing one or more of the functions listed above; or a condition that might cause the person harm if he or she performs one or more of the functions listed above.

(c) Determinations as to the suitability of each person permitted to occupy an exit seat shall be made by the cabin crew members or other persons designated in the AOC holder's OM.

(d) In the event a cabin crew member determines that a passenger assigned to an exit seat would be unable to perform the emergency exit functions, or if a passenger requests a non-exit seat, the cabin crew member shall expeditiously relocate the passenger to a non-exit seat.

(e) In the event of full booking in the non-exit seats, and if necessary to accommodate a passenger being relocated from an exit seat, the cabin crew member shall move a passenger who is willing and able to assume the evacuation functions, to an exit seat.

(f) Each AOC ticket agent shall, before boarding, assign seats consistent with the passenger selection criteria and the emergency exit functions, to the maximum extent feasible.

(g) Each AOC ticket agent shall make available for inspection by the public at all passenger loading gates and ticket counters at each aerodrome where the AOC holder conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(h) Each cabin crew member shall include in his or her passenger briefings a request that a passenger identifies himself or herself to allow reseating if he or she:

(1) Cannot meet the selection criteria;

(2) Has a non-discernible condition that will prevent him or her from performing the evacuation functions;

(3) May suffer bodily harm as the result of performing one or more of those functions; or

(4) Does not wish to perform emergency exit functions.

(i) Each cabin crew member shall include in his or her passenger briefings a reference to the passenger information cards and the functions to be performed in an emergency exit.

(j) Each passenger shall comply with instructions given by a crew member or other authorised employee of the AOC holder implementing exit seating restrictions.

(k) No PIC may allow taxi or pushback unless at least one required crew member has verified that all exit rows and escape paths are unobstructed and that no exit seat is occupied by a person the crew member determines is likely to be unable to perform the applicable evacuation functions.

(l) The procedures required by this standard will not become effective until final approval is granted by the Authority. Approval will be based solely upon the safety aspects of the AOC holder's procedures. In order to comply with this standard AOC holders shall:

(1) Establish procedures that address the requirements of this standard; and

(2) Submit their procedures for preliminary review and approval to the Authority.

8.9.2.12 PROHIBITION AGAINST CARRIAGE OF WEAPONS

(a) No person may, while on board an aircraft being operated in commercial air transport, carry on or about their person a deadly or dangerous weapon, either concealed or unconcealed. An AOC holder may permit a person to transport a weapon, in accordance with the AOC holder’s approved security programme:

(1) If the weapon is unloaded; and

(2) Both the weapon and ammunition are securely stowed in a place inaccessible to any person during the flight.

(b) Officials or employees of the State, or crew members who are authorised to carry weapons on board the aircraft in domestic flights, shall do so in accordance with the AOC holders approved security programme. The PIC shall be notified by the AOC as to the number of armed persons and the location of their seats.

(c) The persons identified in item (b) above may not carry weapons aboard an international flight unless there is prior agreement between Curaçao and all States in which the operation will be either conducted or overflown.

8.9.2.13 OXYGEN FOR MEDICAL USE BY PASSENGERS

(a) An AOC holder may allow a passenger to carry and operate equipment for the storage, generation or dispensing of medical oxygen only as prescribed by the Authority.

(b) No person may smoke, and no crew member may allow any person to smoke within 3 m (10 ft) of oxygen storage and dispensing equipment carried for the medical use of a passenger.

(c) No crew member may allow any person to connect or disconnect oxygen dispensing equipment to or from an oxygen cylinder while any other passenger is aboard the aircraft.

8.9.2.14 CARRY-ON BAGGAGE

(a) No person may allow the boarding of carry-on baggage unless it can be adequately and securely stowed in accordance with the AOC holder's approved OM procedures.

(b) No person may allow aircraft passenger entry doors to be closed in preparation for taxi or pushback unless at least one required crew member has verified that each article of baggage has been properly stowed in overhead racks with approved restraining devices or doors, or in approved locations.

(c) No person may allow carry-on baggage to be stowed in a location that would cause that location to be loaded beyond its maximum placard mass limitation.

Note: The stowage locations shall be capable of restraining the articles in crash impacts severe enough to induce the ultimate inertia forces specified in the emergency landing conditions under which the aircraft was type certificated.

8.9.2.15 CARRIAGE OF CARGO IN PASSENGER COMPARTMENTS

(a) No person may allow the carriage of cargo in the passenger compartment of an aircraft except as prescribed by the Authority below.

(b) Cargo may be carried anywhere in the passenger compartment if it is carried in an approved cargo bin that meets the following requirements:

(1) The bin shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by a factor of 1.15, using the combined mass of the bin and the maximum mass of cargo that may be carried in the bin.

(2) The maximum mass of cargo that the bin is approved to carry and any instructions necessary to ensure proper mass distribution within the bin shall be conspicuously marked on the bin.

(3) The bin may not impose any load on the floor or other structure of the aeroplane that exceeds the load limitations of that structure.

(4) The bin shall be attached to the seat tracks or to the floor structure of the aeroplane, and its attachment shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by either the factor 1.15 or the seat attachment factor specified for the aeroplane, whichever is greater, using the combined mass of the bin and the maximum mass of cargo that may be carried in the bin.

(5) The bin may not be installed in a position that restricts access to or use of any required emergency exit, or of the aisle in the passenger compartment.

(6) The bin shall be fully enclosed and made of material that is at least flame resistant.

(7) Suitable safeguards shall be provided within the bin to prevent the cargo from shifting under emergency landing conditions.

(8) The bin may not be installed in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passenger is provided.

(c) Cargo, including carry-on baggage, shall not be stowed in toilets.

(d) Cargo, including carry-on baggage shall not be stowed against bulkheads or dividers in passenger compartments that are incapable of restraining articles against movement forwards, sideways or upwards and unless the bulkheads or dividers carry a placard specifying the greatest mass that may be placed there, provided that:

(1) It is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions.

(2) It is packaged or covered to avoid possible injury to occupants.

(3) It does not impose any load on seats or in the floor structure that exceeds the load limitation for those components.

(4) It is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.

(e) Cargo, including carry-on baggage, may be carried anywhere in the passenger compartment of a small aircraft if it is carried in an approved cargo rack, bin, or compartment installed in or on the aircraft, if it is secured by an approved means, or if it is carried in accordance with each of the following:

(1) For cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence.

(2) It is packaged or covered to avoid possible injury to occupants.

(3) It does not impose any load on seats or in the floor structure that exceeds the load limitation for those components.

(4) It is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.

(5) It is not carried directly above seated occupants.

(6) It is stowed in compliance with these restrictions during take-off and landing.

(7) For cargo-only operations, if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aeroplane if an emergency occurs.

8.9.2.16 PASSENGER INFORMATION SIGNS

(a) The PIC shall turn on required passenger information signs during any movement on the surface, for each take-off and each landing, and when otherwise considered to be necessary.

8.9.2.17 REQUIRED PASSENGER BRIEFINGS

(a) No person may commence a take-off unless the passengers are briefed before take-off in accordance with the AOC holder's OM procedures on:

(1) Smoking limitations and prohibitions;

(2) Emergency exit location and use;

(3) Use of safety belts;

(4) Emergency floatation means location and use;

(5) Fire extinguisher location and operation;

(6) Placement of seat backs;

(7) If flight is above 3,050 m (10,000 ft) MSL, the normal and emergency use of oxygen;

(8) The passenger briefing card; and

(9) Use of other specialised equipment as required by the Authority.

(b) Immediately before or immediately after turning the seat belt sign off, the PIC or CP shall ensure that the passengers are briefed to keep their seat belts fastened while seated, even when the seat belt sign is off.

(c) Before each take-off, the PIC or CP shall ensure that any persons of reduced mobility are personally briefed on:

(1) The route to the most appropriate exit; and

(2) The time to begin moving to the exit in event of an emergency.

8.9.2.18 PASSENGER BRIEFING—EXTENDED OVERWATER OPERATIONS

(a) No person may commence extended overwater operations unless all passengers have been orally briefed on the location and operations of life preservers, life rafts and other flotation means, including a demonstration of the method of donning and inflating a life preserver.

8.9.2.19 PASSENGER SEAT BELTS

(a) Each passenger occupying a seat or berth shall fasten his or her safety belt and keep it fastened while the "Fasten Seat Belt" sign is lighted or, in aircraft not equipped with such a sign, whenever instructed by the PIC.

(b) No passenger safety belt may be used by more than one occupant during take-off and landing.

(c) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crew members in the performance of their duties or with the rapid egress of occupants in an emergency.

Note 1: A person who has not reached his or her second birthday may be held by an adult who is occupying a seat or berth.

Note 2: A berth, such as a multiple lounge or divan seat, may be occupied by two persons provided it is equipped with an approved safety belt for each person and is used during en-route flight only.

8.9.2.20 PASSENGER SEAT BACKS

(a) No PIC or CP may allow the take-off or landing of an aircraft unless each passenger seat back is in the upright position.

Note: Exceptions may only be made in accordance with procedures in the AOC holder's OM provided the seat back does not obstruct any passenger's access to the aisle or to any emergency exit.

8.9.2.21 STOWAGE OF FOOD, BEVERAGE AND PASSENGER SERVICE

(a) No PIC, CP or SCA may allow the movement of an aircraft on the surface, or the take-off or landing of an aircraft:

(1) When any food, beverage or tableware furnished by the AOC holder is located at any passenger seat; and

(2) Unless each food and beverage tray and seat back tray table is in the stowed position.

8.9.2.22 SECURING OF ITEMS OF MASS IN PASSENGER COMPARTMENT

(a) No person may allow the take-off or landing of an aircraft unless each item of mass in the passenger cabin is properly secured to prevent it from becoming a hazard during taxi, take-off and landing and during turbulent weather conditions.

(b) No person may allow an aircraft to move on the surface, take-off or land unless each passenger serving cart is secured in its stowed position.

8.10 CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS: COMMERCIAL AIR TRANSPORT

8.10.1.1 LIMITATION OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 65TH BIRTHDAY

(a) No person may serve nor may any AOC holder use a person as a required PIC in single pilot operations on aircraft engaged in commercial air transport operations if that person has reached his or her 60th birthday.

(b) For aircraft engaged in commercial air transport operations requiring more than one pilot as flight crew members, the AOC holder may use one pilot up to age 65 provided that the other pilot is less than age 60.

(c) For aircraft engaged in long-range commercial air transport operations requiring more than one pilot as flight crew members, the AOC holder may use one pilot up to age 65 provided that the other pilot is less than age 60.

(d) Check persons who have reached their 65th birthday or who do not hold an appropriate medical certificate may continue their check persons functions, but may not serve as or occupy the position of a required pilot flight crew member on an aeroplane engaged in international commercial air transport operations unless the other pilot is less than age 60.

Note: ICAO Annex 1 change effective November 23, 2006.

8.10.1.2 USE OF FLIGHT SIMULATION TRAINING DEVICES

(a) Each FSTD that is used for flight crew member qualification shall:

(1) Be specifically approved by the Authority for:

(i) The AOC holder;

(ii) The type aircraft, including type variations, for which the training or check is being conducted; and

(iii) The particular manoeuvre, procedure, or crew member function involved.

(2) Maintain the performance, functional, and other characteristics that are required for approval.

(3) Be modified to conform with any modification to the aeroplane being simulated that results in changes to performance, functional, or other characteristics required for approval.

(4) Be given a daily functional pre-flight check before use.

(5) Have a daily discrepancy log completed by the appropriate instructor or check person at the end of each training or check flight.

(b) The simulation device shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, heading reference) as those of the aircraft used by the operator.

(1) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.

(2) Operators that have standard instruments shall use simulators that have standard instruments

8.10.1.3 APPROVAL OF A FLIGHT SIMULATION TRAINING DEVICE FOR CREDIT IN TRAINING AND CHECKING

(a) No AOC holder may use a FSTD for training or checking unless that simulator has been specifically approved for the AOC holder in writing by the Authority.

(b) No AOC holder may use a simulator for credit in training, recency and checking other than that specified in the Authority's approval.

8.10.1.4 LICENCE REQUIREMENTS FOR PILOT-IN-COMMAND

(a) No pilot may act as PIC of an aircraft, certificated for operation with more than one pilot, in commercial air transportation operations unless he or she holds an ATPL with applicable category, class and type rating for that aircraft.

(b) No pilot may act as PIC of an aircraft, certificated for operation for one pilot, in commercial air transportation operations unless he or she holds a CPL or an ATPL with applicable category, class and type rating for that aircraft.

(c) If instrument privileges are to be exercised, the PIC shall hold an Instrument rating.

8.10.1.5 LICENCE REQUIREMENTS FOR CO-PILOT AND CRUISE RELIEF PILOT

(a) No pilot may act as CP of an aircraft in commercial air transport operations unless he or she holds either a CPL/Instrument Rating or an ATPL, each with category, class and type ratings, as applicable, for the aircraft operated.

(b) No pilot may act as a cruise relief pilot in commercial air transport operations unless he or she holds an ATPL with category, and if applicable, class and type ratings, and has completed all training to serve as PIC with the exception of initial operating experience.

8.10.1.6 FLIGHT ENGINEER LICENCE REQUIREMENTS

(a) No person may act as the FE of an aircraft unless he or she an FE licence with the appropriate class rating.

8.10.1.7 ONE PILOT QUALIFIED TO PERFORM FLIGHT ENGINEER FUNCTIONS

(a) The AOC holder shall ensure that, on all flights requiring an FE, there is assigned at least one other flight crew member qualified to perform the FE duties in the event the FE becomes incapacitated.

8.10.1.8 PERSONS QUALIFIED TO FLIGHT RELEASE

(a) No person may act as a FOO in releasing a scheduled passenger-carrying commercial air transport operation unless that person:

(1) Holds an FOO operator authorization approved by the authority or an ATPL or a CPL for day-VFR operations with aircraft certificated for 9 passengers or less; and

(2) Is currently qualified with the AOC holder for the operation and type of aircraft used.

Note: The AOC holder shall maintain the requirements stated in CCAR Subpart 2.8 for the issuance of the FOO operator authorization approved by the Authority.

8.10.1.9 COMPANY PROCEDURES INDOCTRINATION

(a) No person may serve nor may any AOC holder use a person as a crew member or FOO flight dispatcher unless that person has completed the company procedures indoctrination curriculum approved by the Authority, which shall include a complete review of the applicable regulations and OM procedures pertinent to the crew member or flight operation officer's duties and responsibilities.

(b) The AOC holder shall provide a minimum of 40 programmed hours of instruction for company procedures indoctrination training unless a reduction is determined appropriate by the Authority.

(c) The knowledge area topics to be covered are prescribed in IS 8.10.1.9.

8.10.1.10 INITIAL OR RECURRENT DANGEROUS GOODS GROUND TRAINING REQUIREMENTS

(a) Operators that are not approved for the shipping of dangerous goods, shall establish, maintain, and have approved by the Authority, initial and recurrent personnel training programmes, as required by the Technical Instructions, on the subjects prescribed in IS 8.10.1.10.

(b) The following entities involved in the shipping of dangerous goods, shall establish, maintain, and have approved by the Authority, initial and recurrent personnel training programmes, as required by the Technical Instructions, on the subjects prescribed in IS 8.10.1.10.

(1) shippers of dangerous goods, including packers and persons or organisations undertaking the responsibilities of the shipper;

(2) operators;

(3) ground handling agencies which perform, on behalf of the operator, the act of accepting, handling, loading, unloading, transferring or other processing of cargo or mail;

(4) ground handling agencies located at an aerodrome which perform, on behalf of the operator, the act of processing passengers;

(5) agencies, not located at an aerodrome, which perform, on behalf of the operator, the act of checking in passengers;

(6) freight forwarders;

(7) agencies engaged in the security screening of passengers and crew and their baggage and/or cargo or mail; and

(8) designated postal operators.

(c) Recurrent training shall be satisfactorily completed every 24 months.

(d) Dangerous goods training programmes required for the operator in (b)(2) above shall be approved by the Authority.

Note: Dangerous goods training programmes required for other than the operator in (b)(2) shall be subjected to review and approval by the appropriate national authority.

8.10.1.11 INITIAL OR RECURRENT SECURITY TRAINING REQUIREMENTS

(a) No person may serve nor may any AOC holder use operational personnel unless they have completed the initial security curriculum approved by the Authority.

(b) No person may serve nor may any AOC holder use operational personnel unless they have completed the recurrent training security curriculum approved by the Authority within 12 calendar months.

(c) The operator shall establish and maintain an approved security training programme which ensures crew members act in the most appropriate manner to minimise the consequences of acts of unlawful interference. As a minimum, this programme shall include the following elements:

(1) determination of the seriousness of any occurrence;

(2) crew communication and coordination;

(3) appropriate self-defence responses;

(4) use of non-lethal protective devices assigned to crew members whose use is authorised by the State of the Operator;

(5) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;

(6) live situational training exercises regarding various threat conditions;

(7) flight crew compartment procedures to protect the aeroplane; and

(8) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

(d) The operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

8.10.1.12 INITIAL CREW RESOURCE MANAGEMENT TRAINING

(a) No person may serve nor may any AOC holder use a person as a FOO or crew member unless that person has completed the initial CRM curriculum approved by the Authority.

(b) Course curriculum topics are prescribed in IS 8.10.1.12.

8.10.1.13 INITIAL EMERGENCY EQUIPMENT DRILLS

(a) No person may serve nor may any AOC holder use a person as a crew member unless that person has completed the appropriate initial emergency equipment curriculum and drills for the crew member position approved by the Authority for the emergency equipment available on the aircraft to be operated.

(b) Course curriculum requirements are prescribed in IS 8.10.1.13.

8.10.1.14 INITIAL AIRCRAFT GROUND TRAINING

(a) No person may serve nor may any AOC holder use a person as a crew member or FOO unless he or she has completed the initial ground training approved by the Authority for the aircraft type.

(b) Initial aircraft ground training for flight crew members shall include the pertinent portions of the OM relating to aircraft-specific performance, mass and balance, operational policies, systems, limitations, normal, abnormal and emergency procedures on the aircraft type to be used. Specific course curriculum requirements for flight crew members are prescribed in IS 8.10.1.14(B).

Note: The AOC holder may have separate initial aircraft ground training curricula of varying lengths and subject emphasis, which recognise the experience levels of flight crew members, approved by the Authority.

(c) For cabin crew members, initial aircraft ground training shall include the pertinent portions of the OM relating to aircraft-specific configuration, equipment, normal and emergency procedures for the aircraft types within the fleet. Specific course curriculum requirements for cabin crew members are prescribed in IS 8.10.1.14(C).

(d) For FOOs, aircraft initial ground training shall include the pertinent portions of the OM relating to aircraft-specific flight preparation procedures, performance, mass and balance, systems, limitations for the aircraft types within the fleet. Specific course curriculum requirements for FOOs are prescribed in IS 8.10.1.14(D).

8.10.1.15 INITIAL AIRCRAFT FLIGHT TRAINING

(a) No person may serve nor may any AOC holder use a person as a flight crew member unless he or she has completed the initial flight training approved by the Authority for the aircraft type.

(b) Initial flight training shall focus on the manoeuvring and safe operation of the aircraft in accordance with AOC holder's normal, abnormal and emergency procedures.

(c) An AOC holder may have separate initial flight training curricula, which recognise the experience levels of flight crew members, approved by the Authority.

(d) Specific flight training curriculum requirements are prescribed in IS 8.10.1.15(a)(d) for pilots, IS 8.10.1.15(b)(d) for FEs, and IS 8.10.1.15(c) for navigators.

8.10.1.16 INITIAL SPECIALISED OPERATIONS TRAINING

(a) No person may serve nor may any AOC holder use a person as a flight crew member unless he or she has completed the appropriate initial specialised operations training curriculum approved by the Authority.

(b) Specialised operations for which initial training curricula shall be developed include:

(1) Low minimums operations, including LVTOs and CAT II and CAT III operations;

(2) Extended range operations;

(3) Specialised navigation;

(4) PIC right seat qualification;

(5) RVSM; and

(6) RNP.

(c) Specific initial specialised operations training curriculum requirements are prescribed in IS 8.10.1.16.

8.10.1.17 AIRCRAFT DIFFERENCES

(a) No person may serve nor may any AOC holder use a person as a FOO or crew member on an aircraft of a type for which a differences curriculum is included in the AOC holder's approved training programme, unless that person has satisfactorily completed that curriculum, with respect to both the crew member position and the particular variant of that aircraft.

(b) A general listing of subjects to be covered in aircraft differences training is prescribed in IS: 8.10.1. 17.

Note 1: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 2: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

8.10.1.18 RESERVED

8.10.1.19 INTRODUCTION OF NEW EQUIPMENT OR PROCEDURES

(a) No person may serve nor may any AOC holder use a person as a flight crew member when that service would require expertise in the use of new equipment or procedures for which a curriculum is included in the AOC holder's approved training programme, unless that person has satisfactorily completed that curriculum, with respect to both the crew member position and the particular variant of that aircraft.

Note 1: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 2: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

8.10.1.20 PILOT PROFICIENCY – AIRCRAFT AND INSTRUMENT PROFICIENCY CHECKS

(a) No person may serve nor may any AOC holder use a person as a pilot flight crew member unless, since the beginning of the 12th calendar month before that service, that person has passed the aircraft pilot proficiency check prescribed by Authority in the make, and model aircraft on which their services are required.

(b) No person may serve nor may any AOC holder use a person as a pilot in IFR operations unless, since the beginning of the 6th calendar month before that service, that pilot has passed the instrument proficiency check prescribed by the Authority.

(c) A pilot may complete the requirements of paragraphs (a) and (b) simultaneously in a specific aircraft type.

(d) The manoeuvres for aircraft pilot proficiency and instrument proficiency checks conducted under this part are prescribed in IS 8.10.1.20 and in Part 2 of these regulations under the appropriate skill test.

Note 1: FSTDs approved by the State of the Operator may be used for those parts of the checks for which they are specifically approved.

Note 2: See ICAO Doc 9625, Manual of Criteria for the Qualification of Flight Simulation Training Devices.

8.10.1.21 RE-ESTABLISHING RECENCY OF EXPERIENCE - FLIGHT CREW

(a) PILOTS:

(1) In addition to meeting all applicable training and checking requirements, a required pilot flight crew member who, in the preceding 90 days has not made at least three take-offs and landings in the aircraft in which that person is to serve, shall, under the supervision of a check person, re-establish recency of experience as follows:

(i) Make at least three take-offs and landings in the aircraft in which that person is to serve or in a qualified simulator.

(ii) Make at least one take-off with a simulated failure of the most critical powerplant, one landing from the minimum ILS authorised for the AOC holder, and one landing to a full stop.

(2) When using a simulator to accomplish any of the take-off and landing training requirements necessary to re-establish recency of experience, each required flight crew member position shall be occupied by an appropriately qualified person and the simulator shall be operated as if in a normal in-flight environment without use of the repositioning features of the simulator.

(3) A check person who observes the take-offs and landings of a pilot flight crew member shall certify that the person being observed is proficient and qualified to perform flight duty in operations and may require any additional manoeuvres that are determined necessary to make this certifying statement.

(b) FLIGHT ENGINEER. An FE who in the preceding 6 months has not flown 50 hours flight time with an AOC holder as FE in the appropriate class of aeroplane shall re-establish recency by taking the proficiency check specified in Subsection 8.10.1.23 of this part.

(c) FLIGHT NAVIGATOR. An FN who in the preceding 6 months has not flown 50 hours flight time with an AOC holder as FN in the appropriate class of aircraft shall re-establish recency by taking the proficiency check specified in Subsection 8.10.1.23 of this part.

8.10.1.22 PAIRING OF LOW EXPERIENCE PILOTS

(a) If a CP has fewer than 100 hours of flight time in the type aircraft being flown in commercial air transport, and the PIC is not an appropriately qualified check person, the PIC shall make all take-offs and landings in situations designated as critical by the Authority in IS: 8.10.1.22.

(b) No PIC or CP may conduct operations for a type aircraft in commercial air transport unless either pilot has at least 75 hours of line operating flight time, either as PIC or CP.

(c) The Authority may, upon application by the AOC holder, authorise an exemption for the reduction of the number of hours from paragraph (b) by an appropriate amendment to the operations specifications in any of the circumstances identified in IS 8.10.1.22.

8.10.1.23 FLIGHT ENGINEER AND FLIGHT NAVIGATOR PROFICIENCY CHECKS

(a) No person may serve nor may any AOC holder use a person as an FE or an FN on an aeroplane unless within the preceding 12 calendar months he or she has a proficiency check in accordance with the requirements prescribed by the Authority for the skill test in Part 2 of these regulations.

8.10.1.24 COMPETENCY CHECKS—CABIN CREW MEMBERS

(a) No person may serve nor may any AOC holder use a person as a cabin crew member unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check prescribed by the Authority in IS: 8.10.1.24 performing the emergency and other duties appropriate to that person's assignment.

8.10.1.25 COMPETENCY CHECKS—FLIGHT OPERATIONS OFFICERS

(a) No person may serve nor may any AOC holder use a person as a FOO unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check, prescribed by the Authority in IS: 8.10.1.25, performing the flight preparation and subsequent duties appropriate to that person's assignment.

8.10.1.26 SUPERVISED LINE FLYING—PILOTS

(a) Each pilot initially qualifying as PIC shall complete a minimum of 10 flights performing the duties of a PIC under the supervision of a check person.

(b) Each PIC transitioning to a new aircraft type shall complete a minimum of 5 flights performing the duties of a PIC under the supervision of a check person.

(c) Each pilot qualifying for duties other than PIC shall complete a minimum of 5 flights performing those duties under the supervision of a check person.

(d) During the time that a qualifying PIC is acquiring operating experience, a check person who is also serving as the PIC shall occupy a person station.

(e) In the case of a transitioning PIC, the check person serving as PIC may occupy the observer's seat if the transitioning pilot has made at least two take-offs and landings in the type aircraft used, and has satisfactorily demonstrated to the check person that he or she is qualified to perform the duties of a PIC for that type of aircraft.

8.10.1.27 SUPERVISED LINE FLYING—FLIGHT ENGINEERS

(a) Each person qualifying as a FE for each aircraft class – reciprocating engine, turbopropeller powered, or turbojet powered -- shall perform those functions for a minimum of 5 flights under the supervision of a check person approved by the Authority.

8.10.1.28 SUPERVISED LINE EXPERIENCE—CABIN CREW MEMBERS

(a) Each person qualifying as a cabin crew member shall perform those functions on the following aircraft under the supervision of a check person before qualifying as a required crew member:

(1) Reciprocating-engine or turbopropeller powered aircraft – for a minimum of two flights that shall include at least 5 hours flown; or

(2) Turbojet powered aircraft—for a minimum of two flights.

8.10.1.29 LINE OBSERVATIONS—FLIGHT OPERATIONS OFFICERS

(a) No person may serve nor may any AOC holder use a person as a FOO unless, since the beginning of the 12th calendar month before that service, that person has observed, on the flight deck, the conduct of two complete flights, comprising at least 5 total hours, over routes representative of those for which that person is assigned duties.

8.10.1.30 LINE (ROUTE AND AREA) CHECKS—PILOT QUALIFICATION

Note: The terms "line check" and "route and area check" are synonymous.

(a) No person may serve nor may any AOC holder use a person as a pilot unless, within the preceding 12 calendar-months, that person has passed a line check in which he or she satisfactorily performed his or her assigned duties in one of the types of aircraft he or she is to fly.

(b) No person may perform PIC duties over a designated special operational area that requires a special navigation system or procedures or in EDTO operations unless his or her competency with the system and procedures has been demonstrated to the AOC holder within the preceding 12 calendar-months.

(c) Each PIC shall demonstrate operational competency by navigation over the route and area to be flown and the aerodromes to be used as PIC under the supervision of a check person and, on a continuing basis, by flights performing PIC duties. This, at a minimum, shall include a PIC demonstration of knowledge in the following:

(1) The terrain and minimum safe altitudes.

(2) The seasonal meteorological conditions.

(3) The search and rescue procedures.

(4) The navigational facilities and procedures, including any LORAN procedures, associated with the route along which the flight is to take place.

(5) Procedures applicable to:

(i) Flight paths over heavily populated areas or high air traffic density;

(ii) Obstructions;

(iii) Physical layout;

(iv) Lighting, approach aids;

(v) Arrival, departure, holding and IAPs; and

(vi) Applicable operating minima.

(d) NOTAMs.

8.10.1.31 RESERVED

8.10.1.32 PILOT-IN-COMMAND LOW MINIMA AUTHORISATION

(a) Until a PIC has 15 flights performing PIC duties in the aircraft type (which included 5 approaches to landing using CAT I or CAT II procedures), he or she may not plan for or initiate an instrument approach when the DH or MDA is less than 100 m (300 ft) and the visibility less than 1.5km (1 SM).

(b) Until a PIC has 20 flights performing PIC duties in the aircraft type (which included 5 approach and landing using CAT III procedures), he or she may not plan for or initiate an approach when the DH or MDA is less than 30 m (100 ft) or the visibility is less than 350 m RVR (1,200 ft).

8.10.1.33 DESIGNATED SPECIAL AERODROMES AND HELIPORTS - PILOT-IN-COMMAND QUALIFICATION

(a) The Authority may determine that certain airports, due to items such as surrounding terrain, obstructions, or complex approach or departure procedures, are special aerodromes requiring special aerodrome qualifications and that certain areas or routes, or both, require a special type of navigation qualifications.

(b) No person may serve nor may any AOC holder use a person as PIC for operations at designated special aerodromes and heliports unless within the preceding 12 calendar-months:

(1) The PIC has been qualified by the AOC holder through a pictorial means acceptable to the Authority for that aerodrome; or

(2) The PIC or the assigned CP has made a take-off and landing at that aerodrome while serving as a flight crew member for the AOC holder.

(3) If the 12 months qualification period required in item (b) has expired, the PIC shall re-qualify in accordance with the requirements in item (b).

(c) Designated special aerodrome and heliport limitations are not applicable if the operation will occur:

(1) During daylight hours;

(2) When the visibility is at least 5 km (3 miles); and

(3) When the ceiling at that aerodrome is at least 300 m (1,000 ft) above the lowest initial approach altitude prescribed for an IAP.

8.10.1.34 RECURRENT TRAINING—FLIGHT CREW MEMBERS

(a) No person may serve nor may any AOC holder use a person as a flight crew member unless within the preceding 12 calendar-months that person has completed the recurrent ground and flight training curricula approved by the Authority.

(b) The recurrent ground training shall include training on:

(1) Aircraft systems and limitations and normal, abnormal and emergency procedures;

(2) Emergency equipment and drills;

(3) CRM;

(4) Recognition or transportation of dangerous goods; and

(5) Security training.

(c) The recurrent flight training curriculum shall include:

(1) Manoeuvring and safe operation of the aircraft in accordance with AOC holder's normal, abnormal and emergency procedures;

(2) Manoeuvres and procedures necessary for avoidance of in-flight hazards; and

(3) For authorised pilots, at least one LVTO to the lowest applicable minimum LVTO and two approaches to the lowest approved minimums for the AOC holder, one of which is to be a missed approach.

(d) Satisfactory completion of a proficiency check with the AOC holder for the type aircraft and operation to be conducted may be used in lieu of recurrent flight training.

(e) Detailed recurrent training requirements for pilots, FEs, and FNs are prescribed in IS 8.10.1.33.

8.10.1.35 RECURRENT TRAINING AND RE-ESTABLISHMENT OF QUALIFICATIONS—CABIN CREW MEMBERS

(a) No person may serve nor may any AOC holder use a person as a cabin crew member unless within the preceding 12 calendar-months that person has completed the recurrent ground curricula approved by the Authority relevant to the type(s) and/or variant(s) of aircraft and operations to which he or she is assigned.

(b) The recurrent ground training shall include training on:

(1) Aircraft-specific configuration, equipment and procedures;

(2) Emergency and first aid equipment and drills;

(3) CRM;

(4) Recognition or transportation of dangerous goods; and

(5) Security training.

(c) Specific normal and emergency programme training requirements for cabin crew members are prescribed in IS: 8.10.1.34.

(d) A required cabin crew member who, due to a period of inactivity, has not met the recurrent training requirements in paragraphs (a) through (c) shall complete the initial AOC training programme and competency check specified in 8.10.1.24 of this part.

8.10.1.36 RECURRENT TRAINING AND RE-ESTABLISHMENT OF QUALIFICATIONS—FLIGHT OPERATIONS OFFICERS

(a) No person may serve nor may any AOC holder use a person as a FOO unless within the preceding 12 calendar-months that person has completed the recurrent ground curricula approved by the Authority relevant to the type(s) and/or variant(s) of aircraft and positions to which he or she is assigned.

(b) Specific requirements for FOO recurrent training are prescribed in IS: 8.10.1.35. A required FOO who, due to a period of inactivity, has not met the recurrent training requirements in paragraphs (a) through (b) shall complete the initial AOC training programme and competency check specified in 8.10.1.25 of this part.

8.10.1.37 INSTRUCTOR QUALIFICATIONS –FLIGHT CREW, CABIN CREW, FLIGHT OPERATIONS OFFICER, DANGEROUS GOODS

(a) FLIGHT CREW. No AOC holder may use a person nor may any person serve as a flight instructor in an established flight training programme unless, with respect to the aircraft type involved, that person:

(1) Holds the personnel licences and ratings required to serve as a PIC, an FE, or an FN, as applicable;

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as a PIC, an FE, or an FN, as applicable;

(3) Has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a PIC, an FE, or an FN, as applicable;

(4) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed in-flight competency check; and

(5) Holds the appropriate medical certificate for service as a required crew member.

(b) FLIGHT INSTRUCTOR – FLIGHT SIMULATION TRAINING. No person may serve nor may any AOC holder use a person as a Flight Instructor in an FSTD, unless, since the beginning of the 12th calendar month before that service, that person has:

(1) Flown at least five flights as a required crew member for the type of aircraft involved; or

(2) Observed, on the flight deck, the conduct of 2 complete flights in the aircraft type to which the person is assigned.

(c) CABIN CREW. No AOC holder may use a person nor may any person serve as an instructor in an established cabin crew training programme unless, with respect to the aircraft type or position involved, that person:

(1) Holds the qualification required to serve as a cabin crew member;

(2) Has satisfactorily completed the appropriate training phases for the aircraft and position involved, including recurrent training and differences training, that are required to serve as a cabin crew member;

(3) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to service as a cabin crew member;

(4) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check.

(d) FLIGHT OPERATIONS OFFICER. No AOC holder may use a person nor may any person serve as an instructor in an established FOO training programme unless, with respect to the aircraft type and position involved, that person:

(1) Holds the operator authorization required to serve as a FOO;

(2) Has satisfactorily completed the appropriate training phases for the aircraft or position involved, including recurrent training and differences training, that are required to serve as a FOO;

(3) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a FOO; and

(4) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check.

(e) DANGEROUS GOODS. No AOC holder may use a person nor may any person serve as an instructor in an established dangerous goods training programme unless:

(1) they have adequate instructional skills and

(2) have successfully completed a dangerous goods training programme and in an applicable category to be taught.

8.10.1.38 INSTRUCTOR TRAINING

(a) No person may serve nor may any AOC holder use a person as an instructor for flight crew, cabin crew, FOOs, or dangerous goods, unless he or she has completed the curricula approved by the Authority for those functions for which they are to serve.

(b) Specific training programme requirements for flight crew instructors are prescribed in IS 8.10.1.37.

8.10.1.39 PERSONNEL APPROVED TO CONDUCT CHECKS

(a) The Authority may approve the following AOC holder personnel to conduct checks when such personnel meet the requirements for the authorised responsibilities, and may be approved for either aircraft or simulator, or both, as applicable, for checking of flight crew.

(1) Check pilot;

(2) Check flight engineer;

(3) Check flight navigator;

(4) Check cabin crew member; and

(5) Check FOO.

(b) The authorized duties of check personnel are to:

(1) Conduct initial and recurrent proficiency checks for flight crew and competency checks for cabin crew and FOO,

(2) Certify as satisfactory, the knowledge and proficiency of the flight crew, and the knowledge and competency of the cabin crew and FOOs; and

(3) For all check personnel, supervise operating experience (OE).

(c) No person may serve nor may any AOC holder use a person as a check personnel under the AOC holder's crew member checking and standardisation programme in Part 9 of these regulations unless that person has:

(1) been identified by name and function and approved in writing by the Authority; and

(2) successfully completed the AOC holder's curricula approved by the Authority for those functions for which he or she is to serve.

(d) Once approved, no person may serve nor may any AOC holder use a person as a check personnel for any flight crew, cabin crew or FOO checks unless that person has demonstrated, initially and at least biennially to an Authority inspector, the ability to conduct a check for which he or she is approved.

8.10.1.40 CHECK PERSONNEL QUALIFICATIONS

(a) CHECK PERSONNEL FOR FLIGHT CREW (Check Pilot / Check Flight Engineer / Check Flight Navigator).

(1) No AOC holder may use a person, nor may any person serve as a check personnel in an established flight crew training programme unless, with respect to the aircraft type involved, that person:

(i) Holds the personnel licences and ratings required to serve as a PIC, an FE, or an FN, as applicable;

(ii) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as a PIC, an FE, or an FN, as applicable;

(iii) Has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a PIC, an FE, or an FN, as applicable;

(iv) Has satisfactorily completed the applicable initial or transitional training requirements and the Civil Aviation Authority-observed in-flight competency check for check personnel duties;

(v) Holds the appropriate medical certificate if serving as a required flight crew member; and

(vi) Has been approved by the Authority for the check airman duties involved.

(2) CHECK PERSONNEL (Check Pilot / Check Flight Engineer / Check Flight Navigator) – SIMULATOR: ADDITIONAL REQUIREMENTS. No person may serve nor may any AOC holder use a person as a check personnel in an FSTD, unless, since the beginning of the 12th calendar month before that service, that person has:

(i) Flown at least 5 flights as a required crew member for the type of aircraft involved; or

(ii) Observed, on the flight deck, the conduct of 2 complete flights in the aircraft type to which the person is assigned.

(b) CHECK PERSONNEL FOR CABIN CREW (Check Cabin Crew Member).

(1) No AOC holder may use a person, nor may any person serve as a check cabin crew member in an established cabin crew training programme unless, with respect to the aircraft type or position involved, that person:

(i) Holds the qualifications required to serve as a cabin crew member;

(ii) Has satisfactorily completed the appropriate training phases for the aircraft and or position, including recurrent training and differences training, that are required to serve as a cabin crew member;

(iii) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a cabin crew member;

(iv) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check for the check personnel duties; and

(v) Has been approved by the Authority for the check cabin crew member duties involved.

(c) CHECK PERSONNEL FOR FLIGHT OPERATIONS OFFICERS (Check FOO).

(1) No AOC holder may use a person, nor may any person serve as a check flight operations officer in an established FOO training programme unless, with respect to the aircraft type or position involved, that person:

(i) Holds the licence required to serve as a FOO;

(ii) Has satisfactorily completed the appropriate training phases for the aircraft and or position, including recurrent training and differences training, that are required to serve as a FOO;

(iii) Has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a FOO;

(iv) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check for the check FOO duties involved.

(v) Has been approved by the Authority for the check FOO duties involved.

8.10.1.41 CHECK PERSONNEL TRAINING

(a) No person may serve nor may any AOC holder use a person for checks unless he or she has completed the curricula approved by the Authority for those functions for which they are to serve.

(b) Specific training programme requirements for check personnel are prescribed in IS 8.10.1.40.

8.10.1.42 SINGLE-PILOT OPERATIONS UNDER INSTRUMENT FLIGHT RULES OR AT NIGHT – QUALIFICATIONS, TRAINING, CHECKING

(a) No person may conduct single-pilot-operations under IFR or at night in commercial air transportation, in accordance with 8.8.1.30 of this part, unless the operation is approved by the Authority and the pilot has at least 50 hours flight time in the aircraft class in which he or she is to serve and of those 50 hours, not less than 10 hours shall be as PIC.

(b) For single-pilot-operations conducted under IFR:

(1) The pilot shall have at least 25 hours flight time under IFR in the type and class of aircraft in which he or she is to serve.

(2) The 25 hours flight time under IFR referenced in (b)(1) may form part of the required 50 hours flight time in aircraft class.

(3) The pilot shall have performed in single-pilot-operations, at least 5 IFR flights including 3 instrument approaches in the class of aircraft in which he or she is to serve within 90 days preceding the flight, or

(4) Within 90 days preceding the flight, the pilot has satisfactorily completed the single-pilot-operation instrument competency check, as prescribed by the Authority, in the class of aircraft in which he or she is to serve.

(c) For single-pilot-operations conducted at night:

(1) The pilot shall have performed in single-pilot–operations at least 3 take-offs and landings at night in the type and class of aircraft in which he or she is to serve within 90 days preceding the flight, and

(2) Have successfully completed the approved single-pilot-operation training programme prescribed by the Authority.

(d) No pilot may serve nor may any AOC holder assign a person to operate an aircraft in single-pilot-operations in commercial air transport unless the pilot has:

(1) Successfully completed the relevant training requirements of 8.10 of this part applicable to flight crew members engaged in commercial air transport;

(2) Successfully completed the approved single-pilot operations training programme prescribed by the Authority, and

(3) Satisfactorily completed the single-pilot operations checking requirements, as prescribed by the Authority, in the type and class of aircraft in which he or she is to serve.

Note: In addition to successfully completing the relevant training requirements of 8.10 of this part that are applicable to flight crew members engaged in commercial air transport, additional training for pilots conducting single-pilot-operations at night shall include passenger briefings with respect to emergency evacuation, autopilot management and the use of simplified in-flight documentation.

8.10.1.43 RESERVED

8.10.1.44 MONITORING OF TRAINING AND CHECKING ACTIVITIES

(a) To enable adequate supervision of its training and checking activities, the AOC holder shall forward to the Authority at least 24 hours before the scheduled activity the dates, report times and report location of all:

(1) Training for which a curriculum is approved in the AOC holder's training programme; and

(2) Proficiency, competency and line checks.

(b) Failure to provide the information required by paragraph (a) may invalidate the training or check and the Authority may require that it be repeated for observation purposes.

8.10.1.45 TERMINATION OF A PROFICIENCY, COMPETENCY OR LINE CHECK

(a) If it is necessary to terminate a check for any reason, the AOC holder may not use the crew member or FOO in commercial air transport operations until the completion of a satisfactory recheck.

8.10.1.46 RECORDING OF CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS

(a) The AOC holder shall record in its records maintained for each crew member and FOO, the completion of each of the qualifications required by this Part.

(b) A crew member or FOO may complete the curricula required by this Part concurrently or intermixed with other required curricula, but completion of each of these curricula shall be recorded separately.

8.10.1.47 RESERVED

8.10.1.48 ELIGIBILITY PERIOD

(a) Crew members required to take a proficiency check, test or competency check, or recurrent training to maintain qualification for commercial air transport operations may complete those requirements at any time during the eligibility period.

(b) The eligibility period is defined as the three calendar month period including the month-prior, the month-due, and the month-after any due date specified by this subsection.

(c) Completion of the requirement at any time during the period shall be considered as completed in the month-due for calculation of the next due date.

8.10.1.49 REDUCTIONS IN REQUIREMENTS

(a) The Authority may authorise reductions in, or waive, certain portions of the training requirements of this subpart, taking into account the previous experience of the crew members.

(b) Any AOC holder request for reduction or waiver shall be made in writing and outline the basis under which the request is made.

(c) If the request was for a specific crew member, the correspondence from the Authority authorising the reduction and the basis for it shall be filed in the record the AOC holder maintains for that crew member.

(d) If approved by the Authority, a person need not complete the programmed hours of flight training for the particular aircraft if he or she:

(1) progresses successfully through flight training,

(2) is recommended by their instructor, and

(3) successfully completes the appropriate flight check with a check person.

(e) If approved by the Authority, a person need not complete the programmed hours of cabin crew or flight operations officer training if he or she:

(1) progresses successfully through cabin crew or flight operations officer training,

(2) is recommended by their instructor, and

(3) successfully completes the appropriate competency check with a check person.

(f) Whenever the Authority finds that 20 per cent of the checks given at a particular training base during the previous 6 months are unsuccessful, this method of approval will not be used by the AOC holder at that base until the Authority finds that the effectiveness of the training programme has improved.

8.11 FATIGUE MANAGEMENT

8.11.1.1 APPLICABILITY

(a) This section is applicable to the management of fatigue-related safety risks of crew members and FOOs/flight dispatchers engaged in commercial air transport flight operations.

8.11.1.2 MANAGING FATIGUE-RELATED SAFETY RISKS

(a) For the purpose of managing fatigue-related safety risks, an AOC holder shall establish either:

(1) flight time, flight duty period, duty period limitations and rest period requirements that are within the prescriptive fatigue management regulations in 8.12 of this part; or

(2) An FRMS in compliance with paragraph 8.11.1.2(e) of this subsection; or

(3) a FRMS in compliance with paragraph 8.11.1.2(e) of this subsection for part of its operations and the requirements of 8.12 of this part for the remainder of its operations.

(b) Where the operator adopts prescriptive fatigue management regulations for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to these regulations on the basis of a risk assessment provided by the operator. Approved variations shall provide a level of safety equivalent to, or better than that achieved through the prescriptive fatigue management regulations.

(c) The Authority shall approve an operator's FRMS before it may take the place of any or all of the prescriptive fatigue management regulations. An approved FRMS shall provide a level of safety equivalent to, or better than, the prescriptive fatigue management regulations.

(d) Operators using an FRMS shall adhere to the following provisions of the FRMS approval process that allows the Authority to ensure that the approved FRMS meets the requirements of paragraph 8.11.1.2(c) of this subsection:

(1) Establish maximum values for flight times and/or flight duty period(s) and duty period(s), and minimum values for rest periods that shall be based upon scientific principles and knowledge, subject to safety assurance processes.

Note: Guidance on the development and implementation of fatigue management regulations is contained in ICAO Doc 9966, Manual for the Oversight of Fatigue Management Approaches.

(2) Adhere to Authority mandates to decrease maximum values and increase in minimum values in the event that the operator's data indicates these values are too high to too low, respectively; and

(3) Provide justification to the Authority for any increase in maximum values or decrease in minimum values based on accumulated FRMS experience and fatigue-related data before such changes will be approved by the Authority.

(e) Operators implementing an FRMS to manage fatigue-related safety risks shall, as a minimum:

(1) Incorporate scientific principles and knowledge within the FRMS;

(2) Identify fatigue-related safety hazards and the resulting risks on an ongoing basis;

(3) Ensure that the remedial actions, necessary to effectively mitigate the risks associated with the hazards, are implemented promptly;

(4) Provide for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions; and

(5) Provide for continuous improvement to the overall performance of the FRMS.

Note: Provisions on the protection of safety data, safety information and related sources are contained in ICAO Annex 19, Appendix 3.

8.11.1.3 DUTY AND REST PERIODS

(a) Duty and rest periods for flight crew and cabin crew are prescribed in Subpart 8.12.

8.12 FLIGHT TIME, FLIGHT DUTY PERIODS, DUTY PERIODS, AND REST PERIODS FOR FATIGUE MANAGEMENT

8.12.1 GENERAL

8.12.1.1 APPLICABILITY

(a) This section is applicable to the rest, duty and flight time limitations of crew members and FOOs (flight dispatchers) engaged in commercial air transport flight operations.

8.12.1.2 NUTRITION

(a) Crew members and operators should be aware that a lack of sustenance could prove detrimental to an individual's performance and level of vigilance. Meal opportunities should occur sufficiently frequently in order to avoid any detriment to a crew member's performance. Where the FDP exceeds 6 hours, a meal opportunity shall be built into the schedule.

8.12.1.3 FLIGHT DUTY, DUTY AND REST PERIOD RECORDS

(a) The operator shall ensure that crew member's records include:

(1) block times;

(2) start, duration and end of each duty or flight duty periods;

(3) rest periods and days free of all duties; and are maintained to ensure compliance with the requirements of this Subpart; copies of these records will be made available to the crew member upon request.

(b) All crew members shall maintain an individual record as appropriate of his/her:

(1) block times;

(2) start, duration and end of each duty or flight duty periods; and

(3) rest periods and days free of all duties.

(c) A crew member shall present his/her records on request to any operator who employs his/her services before he/she commences a flight duty period.

(d) Records shall be preserved for at least 15 calendar months from the date of the last relevant entry.

(e) Additionally, operators shall separately retain all commander's discretion reports of extended flight duty periods, extended flight hours and reduced rest periods for at least six months after the event.

8.12.2 OBJECTIVE AND SCOPE

8.12.2.1 AIR OPERATOR RESPONSIBILITIES

(a) The operator shall establish a flight and duty time limitations and rest scheme (FTL) for crew members.

(b) The operator shall ensure that for all its flights:

(1) the flight and duty time limitations and rest scheme is in accordance with both:

(i) the provisions of this Subpart; and

(ii) any additional provisions that are applied by the Authority in accordance with the provisions of this Subpart for the purpose of maintaining safety.

(2) Flights are planned to be completed within the allowable flight duty period taking into account the time necessary for pre-flight duties, the flight and turn-around times and the nature of operation.

(3) Duty rosters will be prepared and published sufficiently in advance to provide the opportunity for crew members to plan adequate rest.

(c) The operator shall nominate a home base for each crew member.

(d) Operators shall be expected to appreciate the relationship between the frequencies and pattern of flight duty periods and rest periods and give due consideration to the cumulative effects of undertaking long duty hours interspersed with minimum rest.

(e) Operators shall allocate duty patterns which avoid such undesirable practices as alternating day/night duties or the positioning of crew members so that a serious disruption of established sleep/work pattern occurs.

(f) Operators shall plan local days free of duty and notify crew members in advance.

(g) Operators shall ensure that rest periods provide sufficient time to enable crew to overcome the effects of the previous duties and to be well rested by the start of the following flight duty period.

(h) Operators shall ensure flight duty periods are planned to enable crew members to remain sufficiently free from fatigue so they can operate to a satisfactory level of safety under all circumstances.

8.12.2.2 CREW MEMBER RESPONSIBILITIES

(a) A crew member shall not operate an aeroplane if he/she knows that he/she is suffering from or is likely to suffer from fatigue or feels unfit, to the extent that the flight may be endangered.

(b) Crew members should make optimum use of the opportunities and facilities for rest provided and plan and use their rest periods properly.

8.12.2.3 RESPONSIBILITIES OF AUTHORITY

(a) The Authority has established the following regulations for the purpose of managing fatigue. These regulations are based upon scientific principles and knowledge, with the aim of ensuring that flight and cabin crew members are performing at an adequate level of alertness.

8.12.2.4 VARIATIONS

(a) The Authority may grant variations to the requirements in this Subpart in accordance with applicable laws and procedures and in consultation with interested parties.

(b) Each operator will have to demonstrate to the Authority, using operational experience and taking into account other relevant factors such as current scientific knowledge, that its request for a variation produces an equivalent level of safety. Such variations will be accompanied with suitable mitigation measures where appropriate.

(c) In deciding to grant a variation the Authority shall take into account all the requirements of this subpart. Such variations should be granted only in isolation or in limited combinations.

8.12.3 FLIGHT PERIODS AND DUTY PERIODS LIMITATIONS

8.12.3.1 CUMULATIVE DUTY HOURS

(a) The operator shall ensure that the total duty periods to which a crew member is assigned do not exceed:

(1) 190 duty hours in any 28 consecutive days, spread as evenly as practicable throughout this period; and

(2) 60 duty hours in any seven (7) consecutive days.

8.12.3.2 CUMULATIVE TOTAL BLOCK HOURS

(a) The operator shall ensure that the total block times of the flights on which an individual crew member is assigned as an operating crew member does not exceed;

(b) 1000 block hours in a calendar year, spread as evenly as practicable throughout the year;

(c) 100 block hours in any 28 consecutive days.

8.12.3.3 MAXIMUM DAILY FLIGHT DUTY PERIOD (FDP)

(a) Except for single-pilot operations and to emergency medical service operations:

(1) the operator shall specify reporting times that realistically reflect the time for safety-related ground duties as approved by the Authority;

(2) The maximum basic daily FDP is 13 hours;

(3) These 13 hours will be reduced by 30 minutes for each sector from the third sector onwards with a maximum total reduction of two hours;

(4) When the FDP starts in the WOCL, the maximum stated in point (2) and point (3) will be reduced by 100 % of its encroachment up to a maximum of two hours. When the FDP ends in or fully encompasses the WOCL, the maximum FDP stated in point (2) and point (3) will be reduced by 50 % of its encroachment. (see IS: 8.12.3.3)

8.12.3.4 EXTENSIONS

(a) The maximum daily FDP can be extended by up to one hour.

(b) Extensions are not allowed for a basic FDP of six sectors or more.

(c) Where an FDP encroaches on the WOCL by up to two hours extensions are limited to up to four sectors.

(d) Where an FDP encroaches on the WOCL by more than two hours extensions are limited to up to two sectors.

(e) The maximum number of extensions is two in any seven consecutive days.

(f) Where an FDP is planned to use an extension pre and post flight minimum rest is increased by two hours or post flight rest only is increased by four hours. Where the extensions are used for consecutive FDPs the pre and post rest between the two operations shall run consecutively.

(g) When an FDP with extension starts in the period 22:00 to 04:59 the operator will limit the FDP to 11:45.

8.12.3.5 CABIN CREW

(a) For cabin crew being assigned to a flight or series of flights, the FDP of the cabin crew may be extended by the difference in reporting time between cabin crew and flight crew, as long as the difference does not exceed one hour.

8.12.3.6 OPERATIONAL ROBUSTNESS

(a) Planned schedules must allow for flights to be completed within the maximum permitted flight duty period. To assist in achieving this, operators will take action to change a schedule or crewing arrangements at the latest where the actual operation exceeds the maximum FDP on more than 33 % of the flights in that schedule during a scheduled seasonal period.

8.12.3.7 NIGHT DUTIES

(a) A crew member may be scheduled for no more than 3 consecutive duties that encroach on the period 01:00 to 06:59 local time within any 7 consecutive days.

8.12.3.8 POSITIONING & TRAVELLING;

(a) All the time spent on positioning is counted as duty.

(b) Positioning after reporting but prior to operating shall be included as part of the FDP but shall not count as a sector.

(c) A positioning sector immediately following operating sector will be taken into account for the calculation of minimum rest as defined in Paragraph 8.12.1.5 (a)(1) and (a)(2).

8.12.3.9 DELAYED REPORTING TIME IN A SINGLE FDP;

(a) When a crew member is informed of a delay to the reporting time due to a changed schedule, before leaving the place of rest and within a maximum of ninety minutes before start of the rostered FDP, the FDP shall be calculated as follows. When the delay is less than 4 hours, the maximum FDP allowed shall be based on the original reporting time and the FDP shall start at the actual report time. Where the delay is 4 hours or more, the maximum FDP shall be based on the more limiting time band of the planned and the actual report time and the FDP starts 4hours after the original report time.

(b) When an operator informs a crew member before leaving the place of rest of a delay in reporting time of 10 hours or more ahead, and that crew member is not further disturbed by the operator until a mutually agreed hour, then that elapsed time is classed as a rest period. If, upon the resumption of duty, further delays occur, then the appropriate criteria in this paragraph and paragraph (1) above shall be applied to the re-arranged reporting time.

8.12.3.10 EXTENDED FDP (SPLIT DUTY);

(a) The Authority may grant approval to an operation based on an extended FDP which includes a break.

(b) Each operator will have to demonstrate to the Authority, using operational experience and taking into account other relevant factors, such as current scientific knowledge, that its request for an extended FDP produces an equivalent level of safety.

(c) Maximum extended FDP with split duty is 21 hours.

8.12.4 DUTY REST PERIODS

8.12.4.1 MINIMUM REST

(a) The minimum rest which must be provided before undertaking a flight duty period starting at home base shall be at least as long as the preceding duty period or 12 hours whichever is the greater;

(b) The minimum rest which must be provided before undertaking a flight duty period starting away from home base shall be at least as long as the preceding duty period or 10 hours whichever is the greater; when on minimum rest away from home base, the operator must allow for an eight hour sleep opportunity taking due account of travelling and other physiological needs;

(c) The operator will ensure that effects on crew members of time zone differences will be compensated by additional rest, as regulated by the Authority.

(d) Notwithstanding 8.12.4.1(a) and 8.12.4.1(b), the Authority may grant reduced rest arrangements. Each operator will have to demonstrate to the Authority, using operational experience and taking

into account other relevant factors, such as current scientific knowledge, that its request for reduced rest arrangements produces an equivalent level of safety.

8.12.4.2 REST PERIODS

(a) The operator shall ensure that the minimum rest provided as outlined above is increased periodically to a weekly rest period, being a 36-hour period including two local nights, such that there shall never be more than 168 hours between the end of one weekly rest period and the start of the next. As an exception, the Authority may decide that the second of those local nights may start from 20:00 hours if the weekly rest period has a duration of at least 40 hours.

8.12.4.3 EXTENSION OF FLIGHT DUTY PERIOD DUE TO IN-FLIGHT REST

(a) Flight Duty Period Extension - Flight Crew Augmentation:

(1) Augmentation 1

(i) On aircraft where the standard crew is only two pilots and is augmented with an additional single qualified flight crew member (see Paragraph 8.10.1.5(b)):

(A) The operator must provide a comfortable reclining seat separated and screened from the flight deck and the passenger.
(B) The maximum FDP is 16 hours irrespective of encroachment of the WOCL.

(2) Augmentation 2

(i) On aircraft where the standard crew is only two pilots and is augmented with an additional single qualified flight crew member (see Paragraph 8.10.1.5(b)):

(A) The operator provides a bunk screened from the flight deck and passengers.
(B) The maximum FDP is 18 hours irrespective of encroachment of the WOCL.

(3) Augmentation 3

(i) On aircraft where the standard crew is only two pilots and is augmented with two additional qualified flight crew member (see Paragraph 8.10.1.5(b)):

(A) The operators must provide bunks separated and screened from the flight deck and passengers.
(B) The maximum FDP is 20 hours irrespective of encroachment of the WOCL.

(b) In all cases where the flight crew are augmented the sharing of time away from task by crew members leaving their posts should be kept in balance. With reference to the provisions of dedicated crew rest facilities, as de-fined in 8.12.4.3 (1), 8.12.4.3 (2) and 8.12.4.3 (3) above, these will be progressively introduced in conjunction with the acquisition of new aircraft types.

(c) Flight Duty Period Extension - Cabin Crew:

(1) An Operator will agree with the authority the legal minimum in-flight rest required by cabin crew member(s) when the FDP goes beyond the limitations of Paragraph 8.12.1.4. The authority must take into account the crew rest facilities provided on board the aircraft in reaching their decision.

(2) Cabin Crew carried in excess of the minimum necessary to meet safety requirements may be counted as augmented crew for the purposes of calculating the maximum permitted FDP and inflight rest requirements. In the case where Cabin Crew are augmented crew members leaving their posts should be kept in balance.

8.12.5 STANDBY, EXTENSION OF FLIGHT DUTY AND UNFORESEEN CIRCUMSTANCES

8.12.5.1 AIRPORT STANDBY

(a) A crew member is on airport standby from reporting at the normal report point until the end of the notified standby period.

(b) Airport standby will count in full for the purposes of cumulative duty hours.

(c) Where airport standby is immediately followed by a flight duty, airport standby shall count for 50% towards the total cumulative duty hours and flight duty period. In such a case, airport standby shall be added to the duty period referred to in Paragraph 8.12.1.5(a)(1) and (a)(2) for the purposes of calculating minimum rest.

(d) Where the airport standby does not lead to assignment on a flight duty, it shall be followed by at least a rest period.

(e) While on airport standby the operator will provide to the crew member a quiet and comfortable place not open to the public.

8.12.5.2 OTHER FORMS OF STANDBY (INCLUDING STANDBY AT HOTEL)

(a) All activity shall be rostered and/or notified at least 12 hours in advance.

(b) Standby duty commences at start of standby period and ends at report time.

(c) The maximum duration of Standby duty will not exceed 12 hours.

(d) Rest period after standby duty is at least equal to period from start of standby to end of Duty Period.

(e) Standby is duty and counts in full towards total cumulative duty hours if not called for duty.

(f) Reserve (Contactable/On-Call): A scheduled period of time during a day, other than a day off, of between 2 and 4 hours between 08:00 and 20:00 local time during which an operator may expect to be able to contact a crew member solely for notification of duty the next day (more than 12 hours in advance). Such periods do not count in cumulative duty totals and are not standby. There are no constraints on crew activity whilst on reserve.

(g) A crew member is on standby from the beginning to the end of the notified standby period or until actual report time for duty having been called during the standby period.

(h) A crew member shall not be contacted to report for a duty which starts more than 2 hours after the end of the standby period.

(i) Airport Standby duty will count in full for the purposes of cumulative duty hours totals.

8.12.5.3 UNFORESEEN CIRCUMSTANCES IN ACTUAL FLIGHT OPERATIONS - PIC DISCRETION

(a) Taking into account the need for careful control of these instances implied underneath, during the actual flight operation, which starts at the reporting time, the limits on flight duty, duty and rest periods prescribed in this Subpart may be modified in the event of unforeseen circumstances. Any such modifications must be acceptable to the commander after consultation with all other crew members and must, in all circumstances, comply with the following:

(1) The maximum FDP referred to in Paragraph 8.12.1.4(a) above may not be increased by more than two hours unless the flight crew has been augmented, in which case the maximum flight duty period may be increased by not more than three hours;

(2) If on the final sector within a FDP unforeseen circumstances occur after take-off that will result in the permitted increase being exceeded, the flight may continue to the planned destination or alternate;

(3) In the event of such circumstances, the rest period following the FDP may be reduced but never below the minimum rest defined in Paragraph 8.12.1.5(a)(2);

(b) The commander shall, in case of special circumstances, which could lead to severe fatigue, and after consultation with the crew members affected, reduce the actual flight duty time and/or increase the rest time in order to eliminate any detrimental effect on flight safety.

(c) The operator shall ensure that:

(1) The commander submits a report to the operator whenever a FDP is increased by his/her discretion or when a rest period is reduced in actual operation; and

(2) Where the increase of a FDP or reduction of a rest period exceeds one hour, a copy of the report, to which the operator must add his comments, is sent to the Authority no later than 28 days after the event.

8.13 FLIGHT RELEASE—COMMERCIAL AIR TRANSPORT

8.13.1.1 APPLICABILITY

(a) This Subpart is applicable to an AOC holder and the person designated by the AOC holder to issue a flight release.

8.13.1.2 QUALIFIED PERSONS REQUIRED FOR OPERATIONAL CONTROL FUNCTIONS

(a) A qualified person shall be designated by the AOC holder to exercise the functions and responsibilities for operational control of each flight in commercial air transport.

(b) For passenger-carrying flights on aircraft types with more than nineteen (19) seats, a licensed and qualified flight operation officer /flight dispatcher shall be on-duty at an operations base to perform the operational control functions;

(c) Operators required to make use of a flight operations officer/flight dispatcher, shall issue an operator dispatcher authorization, as part of the approved method of control and supervision of flight operations. The operator shall require that, as a minimum, such persons meet the

requirements specified in CCAR 2.8.3 for the flight operations officer/flight dispatcher company license.

(d) For all other flights, the Director of Operations and the PIC are the qualified persons exercising operational control responsibilities, and shall be available for consultation before, during and immediately following the flight operation.

(1) The Director of Operations may delegate the functions for initiating, continuation, diversion and termination of a flight to other employees. However, the Direction of Operations shall retain full responsibility for these functions.

(e) For all flights, the PIC shares in the responsibility for operational control of the aircraft and has the situational authority to make decisions regarding operational control issues in-flight.

(1) Where a decision of the PIC differs from that recommended, the person making the recommendation shall make a record of the associated facts.

8.13.1.3 FUNCTIONS ASSOCIATED WITH OPERATIONAL CONTROL

(a) The person exercising responsibility for operational control for an AOC holder shall:

(1) Authorise the specific flight operation;

(2) Ensure that only those operations authorised by the AOC operations specifications are conducted;

(3) Ensure that an airworthy aircraft properly equipped for the flight is available;

(4) Specify the conditions under which a flight may be dispatched or released (weather minimums, flight planning, aircraft loading, and fuel requirements;

(5) Ensure that qualified personnel and adequate facilities are available to support and conduct the flight;

(6) Ensure that crew members are in compliance with the flight and duty time requirements when departing on a flight;

(7) Provide the PIC and other personnel who perform operational control functions with access to the necessary information for the safe conduct of a flight (such as weather, NOTAMS and aerodrome analysis);

(8) Ensure that proper flight planning and preparation is made;

(9) Ensure that flight locating and flight following procedures are followed;

(10) Ensure that each flight has complied with the conditions specified for release before it is allowed to depart;

(11) Ensure that when the conditions specified for a release cannot be met, the flight is either cancelled, delayed, re-routed, or diverted, and

(12) For all flights, ensure the monitoring of the progress of the flight and the provision of information that may be necessary to safety.

Note: See also ICAO Doc 9376, Preparation of an Operations Manual, Chapters 7 and 8.

8.13.1.4 OPERATIONAL CONTROL DUTIES

(a) For all flights, the qualified person performing the duties of a FOO shall be to:

(1) Assist the PIC in flight preparation and provide the relevant information required;

(2) Assist the PIC in preparing the operational and ATC flight plans;

(3) Sign the dispatch copy of the flight release;

(4) Furnish the PIC while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight; and

(5) In the event of an emergency situation which endangers the safety of the aeroplane or persons becomes known first to the FOO/flight dispatcher, action by that persons shall be in accordance with such procedures as outlined in the AOC holder's OM.. Where necessary, immediately notify the appropriate authorities on the nature of the situation, and if required, a request for assistance.

(6) Notify the appropriate ATS unit when the position of the aeroplane cannot be determined by an aircraft tracking capability and attempts to establish communication are unsuccessful

(b) A qualified person performing the operational control duties shall avoid taking any action that would conflict with the procedures established by:

(1) ATC;

(2) The meteorological service;

(3) The communications service; or

(4) AOC holder.

Note: See also ICAO Doc 9376, Preparation of an Operations Manual, Chapters 7 and 8.

8.13.1.5 CONTENTS OF A FLIGHT RELEASE/OPERATIONAL FLIGHT PLAN

(a) The dispatch or flight release/operational flight plan shall contain or have attached at least the following information concerning each flight:

(1) Company or organisation name.

(2) Make, model, and registration number of the aircraft being used.

(3) Flight or trip number, and date of flight.

(4) Name of each flight crew member, cabin crew member, and PIC.

(5) Departure aerodrome, destination aerodromes, alternate aerodromes, and route.

(6) Minimum fuel supply (in gallons or pounds).

(7) A statement of the type of operation (e.g., IFR, VFR).

(8) The latest available weather reports and forecasts for the destination aerodrome and alternate aerodromes.

(9) Any additional available weather information that the PIC considers necessary.

(b) The dispatch or flight release/operational flight plan shall be signed by the PIC and, when applicable, the FOO, and a copy shall be filed with operator or a designated agent. If these

procedures are not possible, it shall be left with the aerodrome authority or on record at a suitable place at the point of departure.

Note: See also ICAO Doc 9376, Preparation of an Operations Manual, Chapters 7.

8.13.1.6 FLIGHT RELEASE—AIRCRAFT REQUIREMENTS

(a) No person may issue a flight release for a commercial air transport operation unless the aircraft is airworthy and properly equipped for the intended flight operation.

(b) No person may issue a flight release for a commercial air transport operation using an aircraft with inoperative instruments and equipment installed, except as specified in the MEL approved for the AOC holder for that type aircraft.

(c) No person may issue a flight release for a commercial air transport operation using an aircraft unless a maintenance release has been issued for that aircraft.

(d) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(e) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.7 FLIGHT RELEASE—FACILITIES AND NOTICES TO AIRMEN

(a) No person may release an aircraft over any route or route segment unless there are adequate communications and navigational facilities in satisfactory operating condition as necessary to conduct the flight safely.

(b) The FOO shall ensure that the PIC is provided all available current reports or information on aerodrome conditions and irregularities of navigation facilities that may affect the safety of the flight.

(c) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been complied with.

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

Note: For his or her review of the operational flight plan, the PIC will be provided with all available NOTAMs with respect to the routing, facilities and aerodromes.

8.13.1.8 FLIGHT RELEASE—WEATHER REPORTS AND FORECASTS

(a) No person may release a flight unless he or she is thoroughly familiar with reported and forecast weather conditions on the route to be flown.

(b) No person may release a flight unless he or she has communicated all information and reservations they may have regarding weather reports and forecasts to the PIC.

(c) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been complied with

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.9 FLIGHT RELEASE – IN ICING CONDITIONS

(a) No person may release an aircraft, when in their opinion or that of the PIC, the icing conditions that may be expected or are met exceed that for which the aircraft is certified and has sufficient operational de-icing or anti-icing equipment.

(b) No person may release an aircraft any time conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless there is available to the PIC at the aerodrome of departure adequate facilities and equipment to accomplish the procedures approved for the AOC holder by the Authority for ground de-icing and anti-icing.

(c) No person may issue a flight release for a commercial air transport operation unless the of 8.13.1.5 of this part for operational flight planning have been complied with.

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

Note: ICAO Doc 9640, Manual of Aircraft Ground De-Icing/Anti-Icing, provides additional guidance.

8.13.1.10 FLIGHT RELEASE — UNDER VISUAL FLIGHT RULES OR INSTRUMENT FLIGHT RULES

(a) No person may release a flight under VFR or IFR unless the weather reports and forecasts indicated that the flight can reasonably be expected to be completed as specified in the release.

8.13.1.11 FLIGHT RELEASE—MINIMUM FUEL SUPPLY

(a) No person may issue a flight release for a commercial air transport operation unless the fuel supply specified in the release is equivalent to or greater than the minimum flight planning requirements of this Part, including anticipated contingencies.

(b) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(c) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.12 FLIGHT RELEASE—AIRCRAFT LOADING AND PERFORMANCE

(a) No person may issue a flight release unless he or she is familiar with the anticipated loading of the aircraft and is reasonably certain that the proposed operation will not exceed the:

(1) CG limits;

(2) Aircraft operating limitations; and

(3) Minimum performance requirements.

(b) No person may issue a flight release for a commercial air transport operation unless any load carried is properly distributed and safely secured.

(c) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(d) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.13 FLIGHT RELEASE—AMENDMENT OR RE-RELEASE EN-ROUTE

(a) Each person who amends a flight release while the flight is en-route shall record that amendment.

(b) No person may amend the original flight release to change the destination or alternate aerodrome while the aircraft is en-route unless the flight preparation requirements for routing, aerodrome selection and minimum fuel supply are met at the time of amendment or re-release.

(c) No person may allow a flight to continue to an aerodrome to which it has been released if the weather reports and forecasts indicate changes that would render that aerodrome unsuitable for the original flight release.

(d) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(e) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

8.13.1.14 FLIGHT RELEASE—WITH AIRBORNE WEATHER RADAR EQUIPMENT

(a) No person may release a large aircraft carrying passengers under IFR or night VFR conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar, may reasonably be expected along the route to be flown, unless the airborne weather radar equipment is in satisfactory operating condition.

(b) No person may issue a flight release for a commercial air transport operation unless the requirements of 8.13.1.5 of this part for operational flight planning have been met.

(c) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 8—IMPLEMENTING STANDARDS

For ease of reference, the number assigned to each implementing standard corresponds to its associated regulation. For example, IS: 8.2.1.5 would reflect a standard required in Subsection 8.2.1.5.

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PART 8 IMPLEMENTING STANDARDS

IS 8.2.1.8(A) DOCUMENTS TO BE CARRIED ON BOARD AIRCRAFT – ALL OPERATIONS

The agreement summary of an Article 83 bis agreement shall be accessible to a civil aviation safety inspector to determine which functions and duties are transferred under the agreement by the State of Registry to the State of the Operator, when conducting surveillance activities such as ramp checks.

The ARTICLE 83 bis agreement summary form is obtainable at the Authority.

IS 8.5.1.1 GENERAL AVIATION SPECIFIC APPROVALS

Specific approvals shall have a standardised format that contains the minimum information required in the specific approval template.

The General Aviation Specific Approvals agreement summary form is obtainable at the Authority

Note: When the operations to be conducted require a specific approval, a copy of the document(s) shall be carried on board.

IS: 8.7.2.2(B) GENERAL – ROTORCRAFT CLASS 1, 2, AND 3 CODE OF PERFORMANCE

(a) The following guidance material is the basis of the code of helicopter performance referenced in 8.7.2.2 of this part.

(b) DEFINITIONS:

(1) CATEGORY A. With respect to helicopters, means a multi-engined helicopter designed with engine and system isolation features and capable of operations using take-off and landing data scheduled under a critical engine failure concept that assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off.

(2) CATEGORY B. With respect to helicopters, means a single engine or multi-engined helicopter that does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed.

(c) GENERAL GUIDANCE:

(1) Helicopters operating in performance Classes 1 and 2 shall be certificated in Category A.

(2) Helicopters operating in performance Class 3 shall be certificated in either Category A or Category B (or equivalent).

(3) Except as permitted by the appropriate Authority:

(i) Take-off or landing from/to heliports in a congested hostile environment shall only be conducted in performance Class 1.

(ii) Operations in performance Class 2 shall only be conducted with a safe forced landing capability during take-off and landing.

(iii) Operations in performance Class 3 shall only be conducted in a non-hostile environment.

(4) The Authority may grant a waiver from the provisions of paragraphs (3)(i), (ii), and (iii) of this IS upon receiving a commercial air transport operator's application for waiver and undertaking a risk assessment of the operational conditions proposed, including:

(i) The type of operation and the circumstances of the flight;

(ii) The area/terrain over which the flight is being conducted;

(iii) The probability of a critical engine failure and the consequence of such an event;

(iv) The procedures to maintain the reliability of the engine (s);

(v) The training and operational procedures to mitigate the consequences of the critical engine failure;

(vi) Helicopter equipment; and

(vii) Installation and utilisation of a usage monitoring system.

IS: 8.7.2.3 SINGLE-ENGINE AND MULTI-ENGINE AEROPLANE OPERATIONS

(a) In addition to the requirements in outlined under Subsection 8.7.2.3, an AOC holder seeking approval from the Authority to operate single-engine turbine-powered aeroplanes at night and/or in IMC shall comply with the additional requirements of this implementing standard.

(b) An AOC holder shall not operate single-engine, turbine-powered aeroplanes at night and/or in IMC unless the following airworthiness and operational requirements have been satisfied by the operator and approved by the Authority:

(1) Turbine engine reliability shall be shown to have a power loss rate of less than 1 per 100,000 engine hours.

Note: Power loss in this context is defined as any loss of power, the cause of which may be traced to faulty engine or engine component design or installation, including design or installation of the fuel ancillary or engine control systems.

(c) To minimise the probability of in-flight engine failure, the engine shall be equipped with:

(1) An ignition system that activates automatically, or is capable of being operated manually for take-off and landing, and during flight, in visible moisture;

(2) A magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and

(3) An emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.

(d) SYSTEMS AND EQUIPMENT. Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight and to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions:

(1) Two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required at night and/or in IMC;

(2) A radio altimeter;

(3) An emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to as a minimum:

(i) Maintain the operation of all essential flight instruments, communication and

(ii) navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing;

(iii) Lower the flaps and landing gear, if applicable;

(iv) Provide power to one pitot heater, which shall serve an air speed indicator clearly visible to the pilot;

(v) Provide for operation of the landing light specified in paragraph (d)(10) of this IS;

(vi) Provide for one engine restart, if applicable; and

(vii) Provide for the operation of the radio altimeter;

(4) Two attitude indicators, powered from independent sources;

(5) A means to provide for at least one attempt at engine re-start;

(6) Airborne weather radar;

(7) A certified RNAV system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance information to those locations;

(8) For passenger operations, passenger seats and mounts that meet dynamically-tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat;

(9) In pressurised aeroplanes, sufficient supplemental oxygen for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required;

(10) A landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and

(11) An engine fire warning system.

(e) MINIMUM EQUIPMENT LIST. An AOC holder shall develop an MEL approved by the Authority that is appropriate to the type of single-engine turbine-powered aeroplane operated specifying the operating equipment required for night and/or IMC operations, and for day/VMC operations.

(f) AIRCRAFT FLIGHT MANUAL INFORMATION. The Aircraft Flight Manual shall include limitations, procedures, approval status and other information relevant to operations by single-engine turbine-powered aeroplanes at night and/or in IMC.

(g) EVENT REPORTING. An AOC holder operating turbine-powered aeroplanes at night and/or in IMC shall report all significant failures, malfunctions or defects to the Authority who in turn will notify the State of Design.

(h) OPERATOR PLANNING. Each AOC holder operating single-engine turbine-powered aeroplanes at night and/or in IMC shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following:

(1) The nature of the terrain to be overflown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;

(2) Weather information, including seasonal and other adverse meteorological influences that may affect the flight; and

(3) Other criteria and limitations as specified by the Authority.

(i) Each AOC holder shall identify aerodromes or safe forced landing areas available for use in the event of engine failure and the position of these shall be programmed into the RNAV system.

Note 1: A 'safe' forced landing in this context means a landing in an area in which it can reasonably be expected that it will not lead to serious injury or loss of life, even though the aeroplane may incur extensive damage.

Note 2: Operation over routes and in weather conditions that permit a safe forced landing in the event of an engine failure, as specified in paragraph 8.8.1.31(a) of this part is not required for aeroplanes approved in accordance with paragraph 8.8.1.31(b)(1) of this part. The availability of forced landing areas at all points along a route is not specified for these aeroplanes because of the very high engine reliability, additional systems and operational equipment, procedures, and training requirements specified in IS 8.7.2.3.

(j) FLIGHT CREW EXPERIENCE, TRAINING AND CHECKING.

(1) No person may serve as, and no AOC holder shall use a flight crew member in single-engine turbine-powered aeroplanes engaged in commercial air transport unless he or she has completed the appropriate flight crew member training as specified in this Part and approved by the Authority.

(2) The AOC holder's approved flight crew training and checking shall be appropriate to night and/or IMC operations by single engine turbine-powered aeroplanes, covering normal, abnormal and emergency procedures and, in particular, engine failure, including descent to a forced landing in night and/or in IMC conditions.

(k) ROUTE LIMITATIONS OVER WATER.

(1) An AOC holder shall not conduct over water operations using single-engine turbine-powered aeroplanes operating at night and/or in IMC except in areas of operation or over specific routes identified in the AOC holder's operations specifications.

(2) No AOC holder may conduct over water operations using single-engine turbine-powered aeroplanes operating at night and/or in IMC except in accordance with procedures approved by the Authority in the AOC holder's OM for over water operations covering flight beyond

gliding distance from an area suitable for a safe forced landing/ditching having regard to the characteristics of the aeroplane, seasonal weather influences, including likely sea state and temperature, and the availability of search and rescue services.

(l) OPERATOR CERTIFICATION OR VALIDATION.

(1) An AOC holder applying for operations specifications granting authorisation to conduct single-engine turbine-powered aeroplane operations at night and/or in IMC shall demonstrate to the Authority, consistent with Part 9 of these regulations, the ability to conduct operations by single-engine turbine-powered aeroplanes at night and/or in IMC through a certification and approval process specified by the Authority.

IS: 8.8.1.7 INSTRUMENT APPROACH OPERATING MINIMA

(a) Each operator establishing aerodrome-operating minima shall have its method for determining such minima approved by the Authority.

(b) Each operator's method for determining aerodrome-operating minima shall accurately account for:

(1) The type, performance and handling characteristics of the aircraft;

(2) Any conditions or limitations stated in the flight manual;

(3) The composition, competence, and experience of the flight crew;

(4) The dimensions and characteristics of the runways selected for use;

(5) The adequacy and performance of the available visual and non-visual ground aids;

(6) Aircraft equipment used for navigation, acquisition of visual references, and/or aircraft control during the approach, landing, and missed approach;

(7) Obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the intended IAPs;

(8) The means used to determine and report meteorological conditions; and

(9) The obstacles in the climb out areas and the necessary clearance margins;

(10) The conditions prescribed in the operations specifications;

(11) Any minima that may be promulgated by the State of the Aerodrome; and

(12) The declared distances, for helicopters.

IS: 8.8.1.9 CATEGORY II AND CATEGORY III MANUAL

(a) APPLICATION FOR APPROVAL. An applicant for approval of a CAT II or CAT III manual or an amendment to an approved CAT II or CAT III manual shall submit the proposed manual or amendment to the Authority. If the application requests an evaluation programme, it shall include the following:

(1) The location of the aircraft and the place where the demonstrations are to be conducted; and

(2) The date the demonstrations are to commence (at least 10 days after filing the application).

(b) CONTENTS. Each CAT II or CAT III manual shall contain:

(1) The registration mark, make and model of the aircraft to which it applies.

(2) A maintenance programme; and

(3) The procedures and instructions related to the recognition of DH, the use of RVR information, approach monitoring, the decision region (the region between the middle marker and the DH), the maximum permissible deviations of the basic ILS indicator within the decision region, a missed approach, the use of airborne low approach equipment, minimum altitude for the use of the autopilot, instrument and equipment failure warning systems, instrument failure, and other procedures, instructions, and limitations that may be found necessary by the Authority.

Note 1: CAT II approval is required prior to obtaining CAT III approval.

Note 2: ICAO Doc 9365, Manual of All-Weather Operations, provides additional guidance.

IS: 8.8.1.28 INTERCEPTION OF CIVIL AIRCRAFT

(a) Curaçao shall observe the following principles regarding the interception of civil aircraft.

(1) Interception of civil aircraft will be undertaken only as a last resort.

(2) If undertaken, an interception will be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome.

(3) Practice interception of civil aircraft will not be undertaken.

(4) Navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established.

(5) In the case where an intercepted civil aircraft is required to land in the territory overflown, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned.

Note: In the unanimous adoption by the 25th Session (Extraordinary) of the ICAO Assembly on 10 May 1984 of Article 3 bis to the Chicago Convention, the Contracting States have recognised that "every State must refrain from resorting to the use of weapons against civil aircraft in flight."

(b) Curaçao shall ensure that:

(1) A standard method has been established and made available to the public for the manoeuvring of aircraft intercepting a civil aircraft that is designed to avoid any hazard for the intercepted aircraft.

(2) Provision is made for the use of SSR or ADS-B, where available, to identify civil aircraft in areas where they may be subject to interception.

(c) The PIC of an aircraft that is intercepted by another aircraft shall immediately:

(1) Follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in paragraph (e) of this IS

(2) Notify, if possible, the appropriate ATS unit.

(3) Attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no

contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz.

(4) If equipped with an SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate ATS unit.

(5) If equipped with ADS-B or ADS-C, select the appropriate emergency functionality, if available, unless otherwise instructed by the appropriate air traffic services unit.

(d) If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the PIC of the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

(e) If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the PIC of the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

(f) RADIO COMMUNICATION DURING INTERCEPTION. If radio contact is established during interception but communication in a common language is not possible, the PIC of each involved aircraft shall attempt to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table 1 of this IS and transmitting each phrase twice:

Table 1. Phrases and Pronunciations

Phrases for use by INTERCEPTING Aircraft			Phrases for use by INTERCEPTED Aircraft		
Phrase	**Pronunciation [1]**	**Meaning**	**Phrase**	**Pronunciation [1]**	**Meaning**
CALL SIGN	KOL SA-IN	What is your call sign?	CALL SIGN (call sign)[2]	KOL SA-IN (call sign)	My call sign is (call sign)
FOLLOW	FOL-LO	Follow me	WILCO	VILL-KO	Understood Will comply
DESCEND	DEE-SEND	Descend for landing	CAN NOT	KANN NOTT	Unable to comply
YOU LAND	YOU LAAND	Land at this aerodrome	REPEAT	REE-PEET	Repeat your instruction
PROCEED	PRO-SEED	You may proceed	AM LOST	AM LOSST	Position unknown
			MAYDAY	MAYDAY	I am in distress
			HIJACK[3]	HI-JACK	I have been hijacked
			LAND (place name)	LAAND (place name)	I request to land at (place name)
			DESCEND	DEE-SEND	I require descent

Notes:

1. *In the second column, syllables to be emphasised are underlined.*
2. *The call sign required to be given is that used in radiotelephone communications with ATS units and corresponding to the aircraft identification in the flight plan.*
3. *Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK."*

The signals in Table 2 of this IS shall be used by the pilots of each involved aircraft in the event of interception. Signals initiated by intercepting aircraft and responses by intercepted aircraft.

Table 2. Signals Initiated by Intercepting Aircraft and Responses by Intercepted Aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	DAY or NIGHT – Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading. *Note 1: Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.* *Note 2: If the intercepting aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of racetrack patterns and to rock the aircraft each time it passes the intercepted aircraft.*	You have been intercepted. Follow me.	DAY or NIGHT – Rocking aircraft, flashing navigational lights at irregular intervals, and following.	Understood, will comply.
2	DAY or NIGHT – An abrupt breakaway manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT – Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights, and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover hear to the landing area.	Land at this aerodrome.	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights, and following the intercepting aircraft and, if, after overflying the runway in use or the helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

Table 3. Signals Initiated by Intercepted Aircraft and Responses by Intercepting Aircraft

Series	INTERCEPTED Aircraft Signales	Meaning	INTERCEPTING Aircraft Response	Meaning
4	DAY or NIGHT – Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1 000 ft) but not exceeding 600 m (2 000 ft) (in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT – If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, follow me. Understood, you may proceed.
5	DAY or NIGHT – Regular switching on and off of all available lights, but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT – Irregular flashing of all available lights.	In distress.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.

IS 8.8.1.33 REMOTELY PILOTED AIRCRAFT

The form for approval to operate an RPA within Curacao is obtainable at the Authority

IS: 8.8.2.11 UNIVERSAL AVIATION SIGNALS

(a) Distress signals. The following signals, used either together or separately, mean that grave and imminent danger threatens, and immediate assistance is requested:

Note: None of the provisions in this section shall prevent the use, by an aircraft in distress, of any means at its disposal to attract attention, make known its position and obtain help.

Note 2: For full details of telecommunication transmission procedures for the distress and urgency signals, see ICAO Annex 10, Volume II, Chapter 5.

Note 3: For details of the search and rescue visual signals, see ICAO Annex 12.

(1) A signal made by radiotelegraphy or by any other signalling method consisting of the group SOS (• • • — — — • • •) in the Morse Code.

(2) A signal sent by radiotelephony consisting of the spoken word MAYDAY.

(3) Rockets or shells throwing red lights, fired one at a time at short intervals; and

(4) A parachute flare showing a red light.

Note: Article 41 of the ITU Radio Regulations (Nos. 3268, 3270, and 3271 refer) provides information on the alarm signals for actuating radiotelegraph and radiotelephone auto-alarm systems:

- 3268 The radiotelegraph alarm signal consists of a series of 12 dashes sent in 1 minute, the duration of each dash being 4 seconds and the duration of the interval between consecutive dashes 1 second. It may be transmitted by hand, but its transmission by means of an automatic instrument is recommended.
- 3270 The radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2 200 Hz and the other a frequency of 1 300 Hz, the duration of each tone being 250 milliseconds.
- 3271 The radiotelephone alarm signal, when generated by automatic means, shall be sent continuously for a period of at least 30 seconds but not exceeding 1 minute; when generated by other means, the signal shall be sent as continuously as practicable over a period of approximately 1 minute.

(b) The following signals, used either together or separately, mean that an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance:

(1) The repeated switching on and off of the landing lights; or

(2) The repeated switching on and off of the navigation lights in such manner as to be distinct from flashing navigation lights.

(c) The following signals, used either together or separately, mean that an aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or of some person on board or within sight:

(1) A signal made by radiotelegraphy or by any other signalling method consisting of the group XXX;

(2) A signal sent by radiotelephony consisting of the spoken words PAN, PAN; or

(3) An urgency message sent via data link which transmits the intent of the words PAN, PAN.

(d) VISUAL SIGNALS USED TO WARN AN UNAUTHORISED AIRCRAFT. By day and by night, a series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars will indicate to an unauthorised aircraft that it is flying in or about to enter a restricted, prohibited, or danger area, and that the aircraft is to take such remedial action as may be necessary.

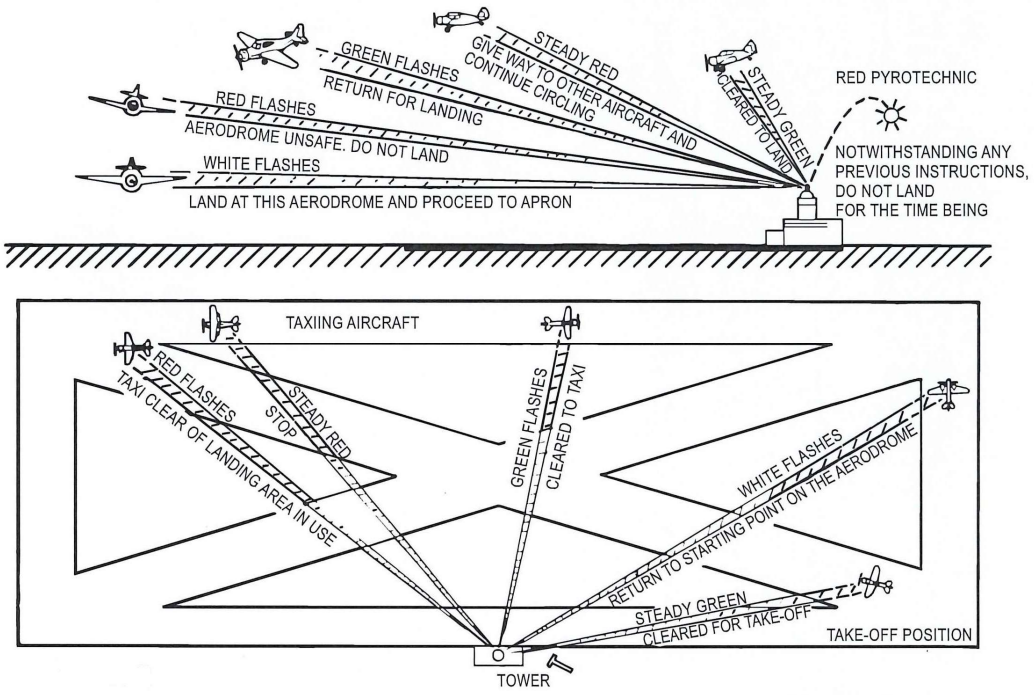
(e) SIGNALS FOR AERODROME TRAFFIC. Aerodrome controllers shall use and pilots shall obey the following light and pyrotechnic signals:

Table 4. Light and Pyrotechnic Signals

Light		From Aerodrome Control to:	
		Aircraft in Flight	**Aircraft on the Ground**
Directed towards aircraft concerned (See Figure 1)	Steady green	Cleared to land	Cleared for take-off
	Steady red	Give way to other aircraft and continue circling	Stop
	Series of green flashes	Return for landing*	Cleared to taxi
	Series of red flashes	Aerodrome unsafe, do not land	Taxi clear of landing area in use
	Series of white flashes	Land at this aerodrome and proceed to ramp*	Return to starting point on the aerodrome
	Red pyrotechnic	Notwithstanding any previous instructions, do not land for the time being	

* Clearances to land and to taxi will be given in due course.

Figure 1.



(f) Pilots shall acknowledge aerodrome controller signals as follows:

(1) When in flight:

(i) During the hours of daylight by rocking the aircraft's wings; and

Note: This signal should not be expected on the base and final legs of the approach.

(ii) During the hours of darkness by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

(g) When on the ground:

(1) During the hours of daylight by moving the aircraft's ailerons or rudder; and

(2) During the hours of darkness by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

(h) Aerodrome authorities shall use the following visual ground signals during the following situations:

(1) PROHIBITION OF LANDING. A horizontal red square panel with yellow diagonals (Figure 2) when displayed in a signal area indicates that landings are prohibited and that the prohibition is liable to be prolonged.

Figure 2.



(2) NEED FOR SPECIAL PRECAUTIONS WHILE APPROACHING OR LANDING. A horizontal red square panel with one yellow diagonal (Figure 3) when displayed in a signal area indicates that owing to the bad state of the manoeuvring area, or for any other reason, special precautions shall be observed in approaching to land or in landing.

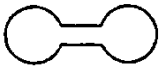
Figure 3.



(3) USE OF RUNWAYS AND TAXIWAYS.

A horizontal white dumb-bell (Figure 4) when displayed in a signal area indicates that aircraft are required to land, take-off and taxi on runways and taxiways only.

Figure 4.



(4) The same horizontal white dumb-bell as in Figure 4, but with a black bar placed perpendicular to the shaft across each circular portion of the dumb-bell (Figure 5) when displayed in a signal area indicates that aircraft are required to land and take-off on runways only, but other manoeuvres need not be confined to runways and taxiways.

Figure 5.



(5) CLOSED RUNWAYS AND TAXIWAYS. Crosses of a single contrasting colour, yellow or white (Figure 6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft.

Figure 6.

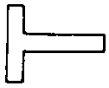


(6) DIRECTIONS FOR LANDING OR TAKE-OFF.

A horizontal white or orange landing T (Figure 7) indicates the direction to be used by aircraft for landing and rake-off, which shall be in a direction parallel to the shaft of the T towards the cross arm.

Note: When used at night, the landing T is either illuminated or outlined in white lights.

Figure 7.



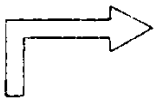
(7) A set of two digits (Figure 8) displayed vertically at or near the aerodrome control tower indicates to aircraft on the manoeuvring area the direction for take-off, expressed in units of 10 degrees to the nearest 10 degrees of the magnetic compass.

Figure 8.



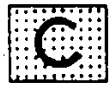
(8) RIGHT-HAND TRAFFIC. When displayed in a signal area, or horizontally at the end of the runway or strip in use, a right-hand arrow of conspicuous colour (Figure 9) indicates that turns are to be made to the right before landing and after take-off.

Figure 9.



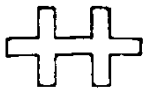
(9) AIR TRAFFIC SERVICES REPORTING OFFICE. The letter C displayed vertically in black against a yellow background (Figure 10) indicates the location of the ATS services reporting office.

Figure 10.



(10) GLIDER FLIGHTS IN OPERATION. A double white cross displayed horizontally (Figure 8.11) in the signal area indicates that the aerodrome is being used by gliders and that glider flights are being performed.

Figure 11.



(i) The following marshalling signals shall be used from a signalman to an aircraft.

(1) For heavier-than-air aircraft, the signalman shall be positioned forward of the left-wing tip within view of the pilot and, for helicopters, where the signalman can best be seen by the pilot.

Note 1: Note: These signals are designed for use by the signalman, with hands illuminated as necessary to facilitate observation by the pilot, and facing the aircraft in a position.

Note 2: The meaning of the relevant signals remains the same if bats, illuminated wands or torchlights are held.

Note 3: The aircraft engines are numbered, for the signalman facing the aircraft, from right to left (i.e. No. 1 engine being the port outer engine).

Note 4: Signals marked with an asterisk are designed for use to hovering helicopters.

Note 5: References to wands may also be read to refer to daylight-fluorescent table-tennis bats or gloves (daytime only).

Note 6: References to the signalman may also be read to refer to marshaller.

(2) Prior to using the following signals, the signalman shall ascertain that the area within which an aircraft is to be guided is clear of objects which the aircraft might otherwise strike.

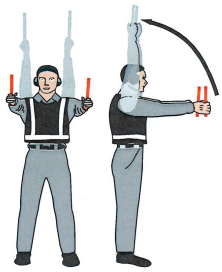
Note: The design of many aircraft is such that the path of the wing tips, engines and other extremities cannot always be monitored visually from the flight deck while the aircraft is being manoeuvred on the ground.



1. Wingwalker/guide.

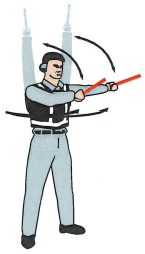
Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body.

Note: This signal provides an indication by a person positioned at the aircraft wing tip to the pilot/ marshaller/ push-back operator that the aircraft movement on/off a parking position would be unobstructed.



2. Identify gate

Raise fully extended arms straight above head with wands pointing up.



3. Proceed to next signalman or as directed by tower/ground control

Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman or taxi area.



4. Straight ahead

Bend extended arms at elbows and move wands up and down from chest height to head.



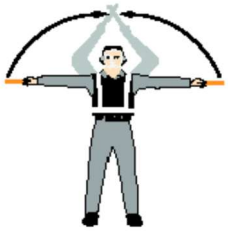
5 a). Turn left (from pilot's point of view)

With right arm and wand extended at a 90-degree angle to body, make "come ahead" signal with left hand. The rate of signal motion indicates to pilot the rate of aircraft turn.



5 b). Turn right (from pilot's point of view)

With left arm and wand extended at a 90-degree angle to body, make "come ahead" signal with right hand. The rate of signal motion indicates to pilot the rate of aircraft turn.



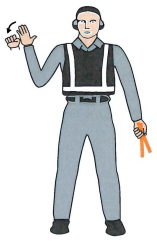
6 a). Normal stop

Fully extend arms and wands at a 90-degree angle to sides and slowly move to above head until wands cross.



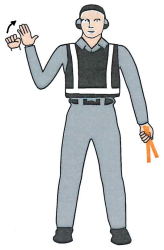
6 b). Emergency stop

Abruptly extend arms and wands to top of head, crossing wands.



7 a). Set brakes

Raise hand just above shoulder height with open palm. Ensuring eye contact with flight crew, close hand into a fist. Do not move until receipt of “thumbs up” acknowledgement from flight crew.



7 b). Release brakes

Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with flight crew, open palm. Do not move until receipt of “thumbs up” acknowledgement from flight crew



8 a). Chocks inserted

With arms and wands fully extended above head, move wands inward in a “jabbing” motion until wands touch. Ensure acknowledgement is received from flight crew.



8 b). Chocks removed

With arms and wands fully extended above head, move wands outward in a “jabbing” motion. Do not remove chocks until authorised by flight crew.



9. Start engine(s)

Raise right arm to head level with wand pointing up and start a circular motion with hand; at the same time, with left arm raised above head level, point to engine to be started.



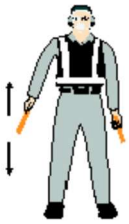
10. Cut engines

Extend arm with wand forward of body at shoulder level; move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat.



11. Slow down

Move extended arms downwards in a “patting” gesture, moving wands up and down from waist to knees.



12. Slow down engine(s) on indicated side

With arms down and wands toward ground, wave either right or left wand up and down indicating engine(s) on left or right side respectively should be slowed down.



13. Move back

With arms in front of body at waist height, rotate arms in a forward motion. To stop rearward movement, use signal 6 a) or 6 b).



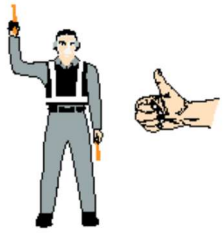
14 a). Turns while backing (for tail to starboard)

Point left arm with wand down and bring right arm from overhead vertical position to horizontal forward position, repeating right-arm movement.



14 b). Turns while backing (for tail to port)

Point right arm with wand down and bring left arm from overhead vertical position to horizontal forward position, repeating left-arm movement.



15. Affirmative/all clear

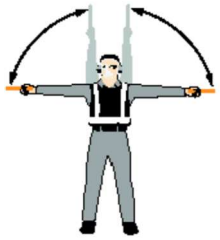
Raise right arm to head level with wand pointing up or display hand with “thumbs up”; left arm remains at side by knee.

Note: This signal is also used as a technical/servicing communication signal.



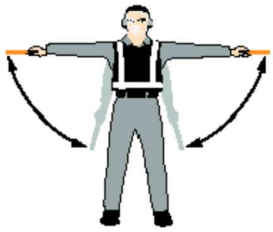
***16. Hover**

Fully extend arms and wands at a 90-degree angle to sides.



***17. Move upward**

Fully extend arms and wands at a 90-degree angle to sides and, with palms turned up, move hands upward. Speed of movement indicates rate of ascent.



***18. Move downward**

Fully extend arms and wands at a 90-degree angle to sides and, with palms turned down, move hands downward. Speed of movement indicates rate of descent.



***19 a). Move horizontally left (from pilot’s point of view)**

Extend arm horizontally at a 90-degree angle to right side of body. Move other arm in same direction in a sweeping motion.



***19 b). Move horizontally right (from pilot’s point of view)**

Extend arm horizontally at a 90-degree angle to left side of body. Move other arm in same direction in a sweeping motion.



***20. Land**

Cross arms with wands downwards and in front of body.



21. Fire

Move right-hand wand in a “fanning” motion from shoulder to knee, while at the same time pointing with left-hand wand to area of fire.



22. Hold position/stand by

Fully extend arms and wands downwards at a 45-degree angle to sides. Hold position until aircraft is clear for next manoeuvre.



23. Dispatch aircraft

Perform a standard salute with right hand and/or wand to dispatch the aircraft. Maintain eye contact with flight crew until aircraft has begun to taxi.



24. Do not touch controls (technical/servicing communication signal)

Extend right arm fully above head and close fist or hold wand in horizontal position; left arm remains at side by knee.



25. Connect ground power (technical/servicing communication signal)

Hold arms fully extended above head; open left hand horizontally and move finger tips of right hand into and touch open palm of left hand (forming a “T”). At night, illuminated wands can also be used to form the “T” above head.



26. Disconnect power (technical/servicing communication signal)

Hold arms fully extended above head with finger tips of right hand touching open horizontal palm of left hand (forming a "T"); then move right hand away from the left. Do not disconnect power until authorised by flight crew. At night, illuminated wands can also be used to form the "T" above head.



27. Negative (technical/servicing communication signal)

Hold right arm straight out at 90 degrees from shoulder and point wand down to ground or display hand with "thumbs down"; left hand remains at side by knee.



28. Establish communication via interphone (technical/servicing communication signal)

Extend both arms at 90 degrees from body and move hands to cup both ears.



29. Open/close stairs (technical/servicing communication signal)

With right arm at side and left arm raised above head at a 45-degree angle, move right arm in a sweeping motion towards top of left shoulder.

Note: This signal is intended mainly for aircraft with the set of integral stairs at the front.

(j) SIGNALS FROM THE PILOT OF AN AIRCRAFT TO A SIGNALMAN.

(1) The PIC or CP shall use the following signals when communicating with a signalman:

Note 1: These signals are designed for use by a pilot on the flight deck with hands plainly visible to the signalman, and illuminated as necessary to facilitate observation by the signalman.

Note 2: The aircraft engines are numbered in relation to the signalman facing the aircraft, from right to (e.g., No. 1 engine being the port outer engine).

(i) BRAKES ENGAGED: Raise arm and hand, with fingers extended, horizontally in front of face, then clench fist.

(ii) BRAKES RELEASED. Raise arm, with fist clenched, horizontally in front of face, then extend fingers.

Note: The moment the fist is clenched or the fingers are extended indicates, respectively, the moment of brake engagement or release.

(iii) INSERT CHOCKS: Arms extended, palms outward, move hands inward to cross in front of face.

(iv) REMOVE CHOCKS: Hands crossed in front of face, palms outward, move arms outward.

(v) READY TO START ENGINE(S). Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.

IS 8.8.3.4 TABLES OF CRUISING LEVELS

(a) The cruising levels at which a flight or a portion of a flight is to be conducted shall be in terms of:

(1) FLs, for flights at or above the lowest usable FL or, where applicable, above the transition altitude; and

(2) Altitude, for flights below the lowest usable FL or, where applicable, at or below the transition altitude.

(b) The PIC shall observe the following cruising levels in areas where, on the basis of Regional Air Navigation Agreements and in accordance with conditions specified therein, a VSM of 300 m (1,000 ft) is applied between FL 290 and FL 410 inclusive:*

TRACK*												
From 000 Degrees to 179 Degrees*						***From 180 Degrees to 359 Degrees****					
IFR Flights			***VFR Flights***			***IFR Flights***			***VFR Flights***		
FL	*Level Metres*	*Feet*	*FL*	*Level Metres*	*Feet*	*FL*	*Level Metres*	*Feet*	*FL*	*Level Metres*	*Feet*
010	*300*	*1000*	—	—	—	*020*	*600*	*2000*	—	—	—
030	*900*	*3000*	*035*	*1050*	*3500*	*040*	*1200*	*4000*	*045*	*1350*	*4500*
050	*1500*	*5000*	*055*	*1700*	*5500*	*060*	*1850*	*6000*	*065*	*2000*	*6500*
070	*2150*	*7000*	*075*	*2300*	*7500*	*080*	*2450*	*8000*	*085*	*2600*	*8500*
090	*2750*	*9000*	*095*	*2900*	*9500*	*100*	*3050*	*10000*	*105*	*3200*	*10500*
110	*3350*	*11000*	*115*	*3500*	*11500*	*120*	*3650*	*12000*	*125*	*3800*	*12500*
130	*3950*	*13000*	*135*	*4100*	*13500*	*140*	*4250*	*14000*	*145*	*4400*	*14500*
150	*4550*	*15000*	*155*	*4700*	*15500*	*160*	*4900*	*16000*	*165*	*5050*	*16500*
170	*5200*	*17000*	*175*	*5350*	*17500*	*180*	*5500*	*18000*	*185*	*5650*	*18500*
190	*5800*	*19000*	*195*	*5950*	*19500*	*200*	*6100*	*20000*	*205*	*6250*	*20500*
210	*6400*	*21000*	*215*	*6550*	*21500*	*220*	*6700*	*22000*	*225*	*6850*	*22500*
230	*7000*	*23000*	*235*	*7150*	*23500*	*240*	*7300*	*24000*	*245*	*7450*	*24500*
250	*7600*	*25000*	*255*	*7750*	*25500*	*260*	*7900*	*26000*	*265*	*8100*	*26500*
270	*8250*	*27000*	*275*	*8400*	*27500*	*280*	*8550*	*28000*	*285*	*8700*	*28500*
290	*8850*	*29000*				*300*	*9150*	*30000*			
310	*9450*	*31000*				*320*	*9750*	*32000*			
330	*10050*	*33000*				*340*	*10350*	*34000*			
350	*10650*	*35000*				*360*	*10950*	*36000*			
370	*11300*	*37000*				*380*	*11600*	*38000*			
390	*11 900*	*39 000*				*400*	*12200*	*40000*			
410	*12500*	*41000*				*430*	*13100*	*43000*			
450	*13700*	*45000*				*470*	*14350*	*47000*			

490	*14950*	*49000*		*510*	*15550*	*51000*	
etc.	*etc.*	*etc.*		*etc.*	*etc.*	*etc.*	

* *Except when, on the basis of Regional Air Navigation Agreements, a modified table of cruising levels based on a nominal VSM of 300 m (1,000 ft) is prescribed for use, under specified conditions, by aircraft operating above FL 410 within designated portions of the airspace.*

** *Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.*

*** *Except where, on the basis of Regional Air Navigation Agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.*

The PIC shall observe the following cruising levels in other areas not specified in paragraph (a) of this IS.

TRACK*												
From 000 Degrees to 179 Degrees***						***From 180 Degrees to 359 Degrees******					
IFR Flights			***VFR Flights***			***IFR Flights***			***VFR Flights***		
	Level			*Level*			*Level*			*Level*	
FL	*Metres*	*Feet*	*FL*	*Metres*	*Feet*	*FL*	*Metres*	*Feet*	*FL*	*Metres*	*Feet*
010	*300*	*1000*	—	—	—	*020*	*600*	*2000*	—	—	—
030	*900*	*3000*	*035*	*1050*	*3500*	*040*	*1200*	*4000*	*045*	*1350*	*4500*
050	*1500*	*5000*	*055*	*1700*	*5500*	*060*	*1850*	*6000*	*065*	*2000*	*6500*
070	*2150*	*7000*	*075*	*2300*	*7500*	*050*	*2450*	*8000*	*085*	*2600*	*8500*
090	*2750*	*9000*	*095*	*2900*	*9500*	*100*	*3050*	*10000*	*105*	*3200*	*10500*
110	*3350*	*11000*	*115*	*3500*	*11500*	*120*	*3650*	*12000*	*125*	*3800*	*12500*
130	*3950*	*13000*	*135*	*4100*	*13500*	*140*	*4250*	*14000*	*145*	*4400*	*14500*
150	*4550*	*15000*	*155*	*4700*	*15500*	*160*	*4900*	*16000*	*165*	*5050*	*16500*
170	*5200*	*17000*	*175*	*5300*	*17500*	*180*	*5500*	*18000*	*185*	*5650*	*18500*
190	*5800*	*19000*	*195*	*950*	*19500*	*200*	*6100*	*20000*	*205*	*6250*	*20500*
210	*6400*	*21000*	*215*	*6550*	*21500*	*220*	*6700*	*22000*	*225*	*6850*	*22500*
230	*7000*	*23000*	*235*	*7150*	*23500*	*240*	*7300*	*24000*	*245*	*7450*	*24500*
250	*7600*	*25000*	*255*	*7750*	*25500*	*260*	*7900*	*26000*	*265*	*8100*	*26500*
270	*8250*	*27000*	*275*	*8100*	*27500*	*280*	*8550*	*28000*	*285*	*8700*	*28500*
290	*8850*	*29000*	*300*	*9150*	*30000*	*310*	*9450*	*31000*	*320*	*9750*	*32000*
330	*10050*	*33000*	*340*	*10350*	*34000*	*350*	*10650*	*35000*	*360*	*10950*	*36000*
370	*11300*	*37000*	*380*	*11600*	*38000*	*390*	*11900*	*39000*	*400*	*12200*	*40000*
410	*12500*	*41000*	*420*	*12500*	*42000*	*430*	*13100*	*43000*	*440*	*13400*	*44000*
450	*13700*	*45000*	*460*	*14000*	*46000*	*470*	*14350*	*47000*	*480*	*14650*	*48000*
490	*14950*	*49000*	*500*	*15250*	*50000*	*510*	*15550*	*51000*	*520*	*15850*	*52000*
etc.	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*	*etc.*

**Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.*

***Except where, on the basis of Regional Air Navigation Agreements,, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.*

Note 1: ICAO Doc 9574, Manual on the Implementation of a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive, contains guidance material relating to vertical separation.

Note 2: ICAO Doc 8168, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), contains guidance for the system of FLs.

IS 8.10.1.9 COMPANY PROCEDURES INDOCTRINATION

(a) Each AOC holder shall ensure that all operations personnel are provided company indoctrination training that covers the following areas:

(1) AOC holder's organisation, scope of operation, and administrative practices as applicable to their assignments and duties.

(2) Appropriate provisions of these regulations and other applicable regulations and guidance materials.

(3) Contents of the AOC holder's certificate and operations specifications (not required for cabin crew).
(4) AOC holder policies and procedures.
(5) Crew member and FOO duties and responsibilities.
(6) AOC holder testing programme for alcohol and narcotic psychoactive substances.
(7) Applicable crew member manuals.
(8) Appropriate portions of the AOC holder's OM

IS 8.10.1.10 INITIAL OR RECURRENT DANGEROUS GOODS GROUND TRAINING REQUIREMENTS

The following categories of individuals shall be trained in dangerous goods.

Category Number	Employee description
1	Shippers and persons understanding the responsibilities of shippers
2	Packers
3	Personnel of freight forwarders involved in processing dangerous goods
4	Personnel of freight forwarders involved in processing cargo or mail (other than dangerous goods)
5	Personnel of freight forwarders involved in the handling, storage and loading of cargo or mail
6	Operator's and ground handling agent's personnel accepting dangerous goods
7	Operator's and ground handling agent's personnel accepting cargo or mail (other than dangerous goods)
8	Operator's and ground handling agent's personnel involved in the handling, storage and loading of cargo or mail and baggage
9	Passenger handling personnel
10	Flight crew members, loadmasters, load planners and FOOs/flight dispatchers
11	Crew members (other than flight crew members)
12	Security personnel who are involved with the screening of passengers and crew and their baggage and cargo or mail, e.g. security screeners, their supervisors and personnel involved in implementing security procedures
13	Operator's and ground handling agent's personnel accepting cargo or mail (other than dangerous goods)
14	Operator's and ground handling agent's personnel involved in the handling, storage and loading of cargo or mail (other than dangerous goods) and baggage
15	Passenger handling personnel
16	Flight crew members, loadmasters, load planners and FOOs/flight dispatchers
17	Crew members (other than flight crew members)

Training courses for entities shipping dangerous goods shall contain the following:

	Shippers and Packers		**Freight Forwarders**			**Operators and Ground Handling Agents**						**Security Personnel**
	Categories of Personnel											
Aspects of transport of dangerous goods by air with which they shall be familiar, as a minimum	1	2	3	4	5	6	7	8	9	10	11	12
General philosophy	X	X	X	X	X	X	X	X	X	X	X	X
Limitations	X		X	X	X	X	X	X	X	X	X	X
General requirements for shippers	X		X			X						
Classification	X	X	X			X						X
List of dangerous goods	X	X	X			X				X		
Packing requirements	X	X	X			X						
Labelling and marking	X	X	X	X	X	X	X	X	X	X	X	X
Dangerous goods transport document and other relevant documentation	X		X	X		X	X					
Acceptance procedures						X						
Recognition of undeclared dangerous goods	X	X	X	X	X	X	X	X	X	X	X	X
Storage and loading procedure					X	X		X		X		
Pilots' notification						X		X		X		
Provisions for passengers and crew	X	X	X	X	X	X	X	X	X	X	X	X
Emergency procedures	X	X	X	X	X	X	X	X	X	X	X	X

Training courses for operators not carrying dangerous goods as cargo or mail shall contain the following:

Contents	Categories of Personnel				
	13	14	15	16	17
General philosophy	X	X	X	X	X
Limitations	X	X	X	X	X
Labelling and marking					
Dangerous goods transport document and other relevant documentation	X				
Recognition of undeclared dangerous goods	X	X	X	X	X
Provisions for passengers and crew	X	X	X	X	X
Emergency procedures	X	X	X	X	X

Note 1: Depending on the responsibilities of the person, the aspects of training to be covered may vary from those shown in the tables above. For example, with respect to classification, personnel involved in implementing security procedures (e.g. screeners and their supervisors) need only be trained in the general properties of dangerous goods.

Note 2: The categories of personnel identified in the tables above are not all encompassing. Personnel employed by or interacting with the aviation industry in areas such as passenger and cargo reservation centres, and engineering and maintenance, except when acting in a capacity identified in the tables above, shall be provided with dangerous goods training in accordance with 8.10.1.10 of this part.

Note 3: The requirements for training the postal worker can be found in the Technical Instructions.

IS 8.10.1.12 INITIAL CREW RESOURCE MANAGEMENT TRAINING

(a) Each AOC holder shall ensure that the FOOs and all aircraft crew members have CRM training (inclusive of human factors) as part of their initial and recurrent training requirements.

(1) A CRM training programme shall include:

(i) An initial indoctrination/awareness segment;
(ii) A method to provide recurrent practice and feedback; and
(iii) A method of providing continuing reinforcement.

(2) Curriculum topics to be contained in an initial CRM training course include:

(i) Communications processes and decision behaviour
(ii) Internal and external influences on interpersonal communications.
(iii) Barriers to communication.
(iv) Listening skills.
(v) Decision-making skills.
(vi) Effective briefings.
(vii) Developing open communications.
(viii) Inquiry, advocacy, and assertion training.
(ix) Crew self-critique.
(x) Conflict resolution.
(xi) Team building and maintenance.
(xii) Leadership and fellowship training.
(xiii) Interpersonal relationships.
(xiv) Workload management.
(xv) Situational awareness.
(xvi) How to prepare, plan and monitor task completions.
(xvii) Workload distribution.
(xviii) Distraction avoidance.
(xix) Individual factors.
(xx) Stress reduction

IS 8.10.1.13 INITIAL EMERGENCY EQUIPMENT DRILLS

(a) Each aircraft crew member shall accomplish emergency training during the specified training periods, using those items of installed emergency equipment for each type of aircraft in which he or she is to serve.

(b) During initial training, each aircraft crew member shall perform the following one-time emergency drills:

(1) PROTECTIVE BREATHING EQUIPMENT/FIREFIGHTING DRILL.

(i) Locate source of fire or smoke (actual or simulated fire).

(ii) Implement procedures for effective crew co-ordination and communication, including notification of flight crew members about fire situation.

(iii) Don and activate installed PBE or approved PBE simulation device.

(iv) Manoeuvre in limited space with reduced visibility.

(v) Effectively use the aircraft's communication system.

(vi) Identify class of fire.

(vii) Select the appropriate extinguisher.

(viii) Properly remove extinguisher from securing device.

(ix) Prepare, operate and discharge extinguisher properly.

(x) Utilise correct firefighting techniques for type of fire.

(2) EMERGENCY EVACUATION DRILL.

(i) Recognise and evaluate an emergency.

(ii) Assume appropriate protective position.

(iii) Command passengers to assume protective position.

(iv) Implement crew co-ordination procedures.

(v) Ensure activation of emergency lights.

(vi) Assess aircraft conditions.

(vii) Initiate evacuation (dependent on signal or decision).

(viii) Command passengers to release seatbelts and evacuate.

(ix) Assess exit and redirect, if necessary; to open exit, including deploying slides and commanding helpers to assist.

(x) Command passengers to evacuate at exit and run away from aircraft.

(xi) Assist special need passengers, such as handicapped, elderly, and persons in a state of panic.

(xii) Actually exit aircraft or training device using at least one of the installed emergency evacuation slides.

Note: The crew member may either observe the aeroplane exits being opened in the emergency mode and the associated exit slide/raft pack being deployed and inflated, or perform the tasks resulting in the accomplishment of these actions.

(c) Each aircraft crew member shall accomplish additional emergency drills during initial and recurrent training, including actual performance of the following emergency drills:

(1) EMERGENCY EXIT DRILL.

(i) Correctly pre-flight each type of emergency exit and evacuation slide or slide raft (if part of cabin crew member's assigned duties).

(ii) Disarm and open each type of door exit in normal mode.

(iii) Close each type of door exit in normal mode.

(iv) Arm each type of door exit in emergency mode.

(v) Open each type of door exit in emergency mode.

(vi) Use manual slide inflation system to accomplish or ensure slide or slide raft inflation.

(vii) Open each type of window exit.

(viii) Remove escape rope and position for use.

(2) HAND FIRE EXTINGUISHER DRILL.

(i) Pre-flight each type of hand fire extinguisher.

(ii) Locate source of fire or smoke and identify class of fire.

(iii) Select appropriate extinguisher and remove from securing device.

(iv) Prepare extinguisher for use.

(v) Actually operate and discharge each type of installed hand fire extinguisher.

Note 1: Fighting an actual or a simulated fire is not necessary during this drill.

Note 2: The discharge of Halon extinguishing agents during firefighting drills in not appropriate, unless a training facility is used that is specifically designed to prevent harm to the environment from the discharged Halon. When such facilities are not used, other fire extinguishing agents that are not damaging to the environment may be used during the drills.

(vi) Utilise correct firefighting techniques for type of fire.

(vii) Implement procedures for effective crew co-ordination and communication, including notification of flight crew members about the type of fire situation.

(3) EMERGENCY OXYGEN SYSTEM DRILL.

(i) Pre-flight and operation of portable oxygen devices.

(ii) Actually operate portable oxygen bottles, including masks and tubing.

(iii) Verbally demonstrate operation of chemical oxygen generators or installed oxygen supply system.

(iv) Prepare for use and operate oxygen device properly, including donning and activation.

(v) Administer oxygen to self, passengers, and to those persons with special oxygen needs.

(vi) Utilise proper procedures for effective crew co-ordination and communication.

(vii) Manually open each type of oxygen mask compartment and deploy oxygen masks.

(viii) Identify compartments with extra oxygen masks.

(ix) Implement immediate action decompression procedures.

(x) Reset oxygen system, if applicable.

(xi) Pre-flight and operation of PBE.

(xii) Activate PBE.

Note: Several operators equip their aircraft with approved PBE units that have approved storage pouches fastened with two metal staples at one end. However, considerations of practicality and cost compel operators to use a less durable storage pouch that lacks the staple fasteners for training purposes. As a result, pilots and cabin crew members have been surprised that opening the pouch furnished on board requires more force than opening the training pouch. The Authority may require crew member training that includes the appropriate procedures for operating PBE. In those cases where pouches with staples are used for storage of the PBE unit, special emphasis in training may highlight the difference between the training pouch and the on-board pouch. The training pouch may be easy to open, but the approved, on-board pouch may require as much as 28 pounds of force to overcome the 2 staple fasteners.

(4) FLOTATION DEVICE DRILL.

(i) Pre-flight flotation device, if appropriate.

(ii) Don and inflate life vests.

(iii) Remove and use flotation seat cushions, as installed.

(iv) Demonstrate swimming techniques using a seat cushion, as installed.

(5) DITCHING DRILL IF APPLICABLE.

Note: During a ditching drill students shall perform the "prior to impact" and "after impact" procedures for a ditching, as appropriate to the specific operator's type of operation.

(i) Implement crew co-ordination procedures, including briefing with the PIC to obtain pertinent ditching information and briefing cabin crew members.

(ii) Co-ordinate time frame for cabin and passenger preparation.

(iii) Adequately brief passengers on ditching procedures.

(iv) Ensure cabin is prepared, including the securing of carry-on baggage, lavatories, and galleys.

(v) Demonstrate how to properly deploy and inflate slide raft.

(vi) Demonstrate how to properly deploy and inflate life rafts, if applicable.

(vii) Remove, position and attach slide rafts to aircraft.

(viii) Inflate rafts.

(ix) Use escape ropes at overwing exits.

(x) Command helpers to assist.

(xi) Use slides and life vests or seat cushions as flotation devices.

(xii) Remove appropriate emergency equipment from aircraft.

(xiii) Board rafts properly.

(xiv) Initiate raft management procedures (i.e., disconnecting rafts from aircraft, applying immediate first aid, rescuing persons in water, salvaging floating rations and equipment, deploying sea anchor, tying rafts together, activating or ensuring operation of emergency locator transmitter).

(xv) Initiate basic survival procedures (i.e., removing and utilising survival kit items, repairing and maintaining raft, ensuring protection from exposure, erecting canopy, communicating location, providing continued first aid, providing sustenance).

(xvi) Use heaving line to rescue persons in water.

(xvii) Tie slide rafts or rafts together.

(xviii) Use life line on edge of slide raft or life raft as a handhold.

(xix) Secure survival kit items.

(xx) Each aircraft crew member shall accomplish additional emergency drill requirements during initial and recurrent training including observing the following emergency drills:

(6) LIFE RAFT REMOVAL AND INFLATION DRILL IF APPLICABLE.

(i) Removal of a life raft from the aircraft or training device.

(ii) Inflation of a life raft.

(7) SLIDE RAFT TRANSFER DRILL.

(i) Transfer of each type of slide raft pack from an unusable door to a usable door.

(ii) Disconnect slide raft at unusable door.

(iii) Redirect passengers to usable slide raft.

(iv) Installation and deployment of slide raft at usable door.

(8) SLIDE AND SLIDE RAFT DEPLOYMENT, INFLATION AND DETACHMENT DRILL

(i) Engage slide girt bar in floor brackets, if applicable.

(ii) Arm slide for automatic inflation.

(iii) Inflate slides with and without quick-release handle (manually and automatically).

(iv) Disconnecting slide from the aircraft for use as a flotation device.

(v) Arm slide rafts for automatic inflation.

(vi) Disconnecting slide raft from the aircraft.

(9) EMERGENCY EVACUATION SLIDE DRILL.

(i) Open armed exit with slide or slide raft deployment and inflation.

(ii) Egress from aircraft via the evacuation slide and run away to a safe distance.

IS 8.10.1.14(B) INITIAL AIRCRAFT GROUND TRAINING – FLIGHT CREW

(a) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown. Instructions shall include at least the following general subjects:

(1) AOC holder's dispatch, flight release, or flight locating procedures.

(2) Principles and methods for determining mass and balance, and runway limitations for take-off.

(3) AOC holder's operations specifications, authorisations and limitations.

(4) Adverse weather recognition and avoidance, and flight procedures which shall be followed when operating in the following conditions:

(i) Icing.

(ii) Fog.

(iii) Turbulence.

(iv) Heavy precipitation.

(v) Thunderstorms.

(vi) Low-level windshear and microburst.

(vii) Low visibility.

(viii) Contaminated runways.

(5) Normal and emergency communications procedures and navigation equipment including the AOC holder's communications procedures and ATC clearance requirements.

(6) Navigation procedures used in area departure, en-route, area arrival, approach and landing phases, to include visual cues prior to and during descent below DH or MDA.

(7) Approved CRM training.

(8) ATC systems, procedures, and phraseology.

(9) Aircraft performance characteristics during all flight regimes, including:

(i) The use of charts, tables, tabulated data and other related manual information.

(ii) Normal, abnormal, and emergency performance problems.

(iii) Meteorological and mass limiting performance factors (such as temperature, pressure, contaminated runways, precipitation, climb/runway limits).

(iv) Inoperative equipment performance limiting factors (such as MEL/CDL, inoperative antiskid).

(v) Special operational conditions (such as unpaved runways, high altitude aerodromes and drift down requirements).

(10) Normal, abnormal and emergency procedures on the aircraft type to be used.

(b) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown, including at least the following aircraft systems (if applicable):

(1) AIRFRAME.

(i) Aircraft

(ii) Aircraft dimensions, turning radius, panel layouts, flight deck, and cabin configurations

(iii) Other major systems and components or appliances of the aircraft

(iv) Operating limitations

(v) Approved Aircraft Flight Manual

(2) POWERPLANTS.

(i) Basic engine description.

(ii) Engine thrust ratings.

(iii) Engine components such as accessory drives, ignition, oil, fuel control, hydraulic, and bleed air features.

(3) ELECTRICAL.

(i) Sources of aircraft electrical power (such as engine driven generators, APU generator, external power, etc.).

(ii) Electrical buses.

(iii) Circuit breakers.

(iv) Aircraft battery.

(v) Standby power systems.

(4) HYDRAULIC.

(i) Hydraulic reservoirs, pumps, accumulators; filters, check valves, interconnects and actuators.

(ii) Other hydraulically operated components.

(5) FUEL.

(i) Fuel tanks (location and quantities).

(ii) Engine driven pumps.

(iii) Boost pumps.

(iv) System valves and crossfeeds.

(v) Quantity indicators.

(vi) Provisions for fuel jettisoning.

(6) PNEUMATIC.

(i) Bleed air sources (APU, engine or external ground air).

(ii) Means of routing, venting and controlling bleed air via valves, ducts, chambers, and temperature and pressure limiting devices.

(7) AIR CONDITIONING AND PRESSURISATION.

(i) Heaters, air conditioning packs, fans, and other environmental control devices.

(ii) Pressurisation system components such as outflow and negative pressure relief valves.

(iii) Automatic, standby, and manual pressurisation controls and annunciators.

(8) FLIGHT CONTROLS.

(i) Primary controls (yaw, pitch, and roll devices).

(ii) Secondary controls (leading/trailing edge devices, flaps, trim, and damping mechanisms).

(iii) Means of actuation (direct/indirect or fly by wire).

(iv) Redundancy devices.

(9) LANDING GEAR AND BRAKES.

(i) Landing gear extension and retraction mechanism including the operating sequence of struts, doors, and locking devices, and brake and antiskid systems, if applicable.

(ii) Steering (nose or body steering gear).

(iii) Bogie arrangements.

(iv) Air/ground sensor relays.

(v) Visual downlock indicators.

(10) ICE AND RAIN PROTECTION.

(i) Rain removal systems.

(ii) Anti-icing and/or de-icing system(s) affecting flight controls, engines, pitot static and other probes, fluid outlets, flight deck windows, and aircraft structures.

(11) EQUIPMENT AND FURNISHINGS.

(i) Exits.

(ii) Galleys.

(iii) Water and waste systems.

(iv) Lavatories.

(v) Cargo areas.

(vi) Crew member and passenger seats.

(vii) Bulkheads.

(viii) Seating and/or cargo configurations.

(ix) Non-emergency equipment and furnishings.

(12) NAVIGATION EQUIPMENT.

(i) Flight directors.

(ii) Horizontal situation indicator.

(iii) Radio magnetic indicator.

(iv) Navigation receivers (GPS, ADF, SDF/LDA, VOR, TACAN, LORAN-C, RNAV, Marker Beacon, DME) as required for the flight operations to be conducted.

(v) Inertial systems (INS, IRS).

(vi) Functional displays.

(vii) Fault indications and comparator systems.

(viii) Aircraft transponders.

(ix) Radio altimeters.

(x) Weather radar.

(xi) CRT or computer-generated generated displays of aircraft position and navigation information.

(13) AUTOFLIGHT SYSTEM.

(i) Autopilot.

(ii) Autothrottles.

(iii) Flight director and navigation systems.

(iv) Automatic approach tracking.

(v) Autoland.

(vi) Automatic fuel and performance management systems.

(14) FLIGHT INSTRUMENTS.

(i) Panel arrangement.

(ii) Flight instruments (attitude indicator, directional gyro, magnetic compass, airspeed indicator, vertical speed indicator, altimeters, standby instruments).

(iii) Instrument power sources, and instrument sensory sources (e.g., pitot static pressure).

(15) DISPLAY SYSTEMS.

(i) Weather radar.

(ii) Other cathode ray tube (CRT) or computer generated displays (e.g., checklist, vertical navigation or longitudinal navigation displays)

(iii) Head-up displays and/or enhanced vision systems

(16) COMMUNICATION EQUIPMENT.

(i) VHF/HF/SAT COM radios.

(ii) Audio panels.

(iii) Inflight interphone and passenger address systems.

(iv) Voice recorder.

(v) Air/ground passive communications systems

(17) WARNING SYSTEMS.

(i) Aural, visual, and tactile warning systems (including the character and degree of urgency related to each signal).

(ii) Warning and caution annunciator systems (including ACAS and ground proximity and take-off configuration warning systems).

(18) FIRE PROTECTION.

(i) Fire and overheat sensors, loops, modules, or other means of providing visual and/or aural indications of fire or overheat detection.

(ii) Procedures for the use of fire handles, automatic extinguishing systems and extinguishing agents.

(iii) Power sources necessary to provide protection for fire and overheat conditions in engines, APU, cargo bay/wheel well, flight deck, cabin and lavatories.

(19) OXYGEN.

(i) Passenger, crew, and portable oxygen supply systems.

(ii) Sources of oxygen (gaseous or solid).

(iii) Flow and distribution networks.

(iv) Automatic deployment systems.

(v) Regulators, pressure levels and gauges.

(vi) Servicing requirements.

(20) LIGHTING.

(i) Flight deck, cabin, and external lighting systems.

(ii) Power sources.

(iii) Switch positions.

(iv) Spare light bulb locations.

(21) EMERGENCY EQUIPMENT.

(i) Fire and oxygen bottles.

(ii) First aid and medical kits.

(iii) Life rafts and life preservers.

(iv) Crash axes.

(v) Emergency exits and lights.

(vi) Slides and slide rafts.

(vii) Escape straps or handles.

(viii) Hatches, ladders and movable stairs.

(ix) Survival suits, if applicable to the operation.

(22) AUXILIARY POWER UNIT.

(i) Electric and bleed air capabilities.

(ii) Interfaces with electrical and pneumatic systems.

(iii) Inlet doors and exhaust ducts.

(iv) Fuel supply.

(23) PERFORMANCE

(24) ELECTRONIC FLIGHT BAG (if applicable).

(c) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown, including at least the following aircraft systems integration items:

(1) USE OF CHECKLIST.

(i) Safety checks.

(ii) Flight deck preparation (switch position and checklist flows).

(iii) Checklist callouts and responses.

(iv) Checklist sequence.

(2) FLIGHT PLANNING.

(i) Pre-flight and in-flight planning.

(ii) Performance limitations (meteorological, mass, and MEL/CDL items).

(iii) Required fuel loads.

(iv) Weather planning (lower than standard take-off minimums or alternate requirements).

(3) DISPLAY SYSTEMS.

(i) Weather radar.

(ii) CRT displays (e.g., checklists, vertical navigation or longitudinal navigation displays).

(4) NAVIGATION AND COMMUNICATION SYSTEMS.

(i) Pre-flight and operation of applicable receivers.

(ii) On-board navigation systems.

(iii) Flight plan information input and retrieval.

(5) AUTOFLIGHT/FLIGHT DIRECTORS.

(i) Autopilot.

(ii) Autothrust.

(iii) Flight director systems, including the appropriate procedures, normal and abnormal indications, and annunciators.

(6) FLIGHT DECK FAMILIARISATION.

(i) Activation of aircraft system controls and switches to include normal, abnormal and emergency switches.

(ii) Control positions and relevant annunciators, lights, or other caution and warning systems.

(d) Each AOC holder shall ensue that initial ground training for flight crew consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) For pilots and FEs:

(i) Reciprocating-engine aeroplane—64 hours.

(ii) Turbopropeller-powered aeroplane—80 hours.

(iii) Turbo-jet aeroplane—120 hours.

(iv) Helicopter—64 hours.

(v) Powered-lift—80 hours.

(vi) Other aircraft—64 hours.

(2) For FNs:

(i) Reciprocating-engine aircraft—16 hours.

(ii) Turbopropeller-powered aircraft—32 hours.

(iii) Turbojet-aircraft— 32 hours

IS 8.10.1.14(C) INITIAL AIRCRAFT GROUND TRAINING – CABIN CREW MEMBERS

(a) Each AOC holder shall have an initial ground training curriculum for cabin crew members applicable to the type of operations conducted and aircraft flown, including at least the following general subjects, if applicable:

(1) AIRCRAFT FAMILIARISATION.

(i) Aircraft characteristics and description.

(ii) Flight deck configuration.

(iii) Cabin configuration.

(iv) Galleys.

(v) Lavatories.

(vi) Stowage areas.

(2) AIRCRAFT EQUIPMENT AND FURNISHINGS.

(i) Cabin crew member stations.

(ii) Cabin crew member panels.

(iii) Passenger seats.

(iv) Passenger service units and convenience panels.

(v) Passenger information signs.

(vi) Aircraft markings.

(vii) Aircraft placards.

(viii) Bassinets and bayonet tables.

(3) AIRCRAFT SYSTEMS.

(i) Air conditioning and pressurisation system.

(ii) Aircraft communication systems (call, interphone and passenger address).

(iii) Lighting and electrical systems.

(iv) Oxygen systems (flight crew, observer and passenger).

(v) Water system.

(vi) Entertainment and convenience systems.

(4) AIRCRAFT EXITS.

(i) General information.

(ii) Exits with slides or slide rafts (pre-flight and normal operation).

(iii) Exits without slides (pre-flight and normal operations).

(iv) Window exits (pre-flight).

(5) CREW MEMBER COMMUNICATION AND COORDINATION.

(i) Authority of PIC.

(ii) Routine communication signals and procedures.

(iii) Crew member briefing.

(6) ROUTINE CREW MEMBER DUTIES AND PROCEDURES.

(i) Crew member general responsibilities.

(ii) Reporting duties and procedures for specific aircraft.

(iii) Pre-departure duties and procedures prior to passenger boarding.

(iv) Passenger boarding duties and procedures.

(v) Prior to movement on the surface duties and procedures.

(vi) Prior to take-off duties and procedures applicable to specific aircraft.

(vii) Inflight duties and procedures.

(viii) Prior to landing duties and procedures.

(ix) Movement on the surface and arrival duties and procedures.

(x) After arrival duties and procedures.

(xi) Intermediate stops.

(7) PASSENGER HANDLING RESPONSIBILITES.

(i) Crew member general responsibilities.

(ii) Infants, children, and unaccompanied minors.

(iii) Passengers needing special assistance.

(iv) Passengers needing special accommodation.

(v) Carry-on stowage requirements.

(vi) Passenger seating requirements.

(vii) Smoking and no smoking requirements.

(8) APPROVED CREW RESOURCE MANAGEMENT TRAINING FOR CABIN CREW MEMBERS.

(b) Each AOC holder shall have an initial ground training curriculum for cabin crew members applicable to the type of operations conducted and aircraft flown, including at least the following aircraft specific emergency subjects, if applicable:

(1) EMERGENCY EQUIPMENT.

(i) Emergency communication and notification systems.

(ii) Aircraft exits.

(iii) Exits with slides or slide rafts (emergency operation).

(iv) Slides and slide rafts in a ditching.

(v) Exits without slides (emergency operation).

(vi) Window exits (emergency operation).

(vii) Exits with tailcones (emergency operation).

(viii) Flight deck exits (emergency operation).

(ix) Ground evacuation and ditching equipment.

(x) First aid equipment.

(xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, PBE).

(xii) Fire fighting equipment.

(xiii) Emergency lighting systems.

(xiv) Universal precaution kits

(xv) Automated external defibrillators

(xvi) Survival suits, if applicable to the operation.

(xvii) Additional emergency equipment.

(2) EMERGENCY ASSIGNMENTS AND PROCEDURES.

(i) General types of emergencies specific to aircraft, including crew coordination and communication.

(ii) Emergency communication signals and procedures.

(iii) Rapid decompression.

(iv) Insidious decompression and cracked window and pressure seal leaks.

(v) Fires.

(vi) Ditching.

(vii) Ground evacuation.

(viii) Unwarranted evacuation (i.e., passenger initiated).

(ix) Illness or injury.

(x) Abnormal situations involving passengers or crew members.

(xi) Hijacking and acts of unlawful interference.

(xii) Bomb threat.

(xiii) Turbulence.

(xiv) Other unusual situations including an awareness of other crew member's assignments and functions as they pertain to the cabin crew member's own duties.

(xv) Previous aircraft accidents and incidents.

(3) AIRCRAFT SPECIFIC EMERGENCY DRILLS.

(i) Emergency exit drill.

(ii) Hand fire extinguisher drill.

(iii) Emergency oxygen system drill.

(iv) Flotation device drill.

(v) Ditching drill, if applicable.

(vi) Life raft removal and inflation drill, if applicable.

(vii) Slide raft pack transfer drill, if applicable.

(viii) Slide or slide raft deployment, inflation, and detachment drill, if applicable.

(ix) Emergency evacuation slide drill, if applicable.

(c) Each AOC holder shall ensure that initial ground training for a cabin crew member includes a competency check given by the appropriate supervisor or ground instructor to determine his or her ability to perform assigned duties and responsibilities.

(d) Each AOC holder shall ensure that initial ground training for cabin crew members consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) Reciprocating-engine aircraft - 8 hours.

(2) Turbopropeller-powered aircraft - 8 hours.

(3) Turbojet aircraft – 16 hours.

(4) Other aircraft, including, if applicable, helicopter and powered lift – 8 hours

IS 8.10.1.14(D) INITIAL AIRCRAFT GROUND TRAINING – FLIGHT OPERATIONS OFFICER

(a) Each AOC holder shall provide initial aircraft ground training for FOOs that include instruction in at least the following subjects:

(1) GENERAL DISPATCH SUBJECTS.

(i) Appropriate regulations

(ii) AOC holder's OM

(iii) AOC holder's operations specifications

(iv) Weather reports: interpretation, available sources, actual and prognostic, seasonal variations

(v) Communications, to include normal and emergency

(vi) Meteorology, to include effects on radio reception

(vii) Adverse weather

(viii) NOTAMs

(ix) Navigational charts and publications

(x) Joint dispatcher/pilot responsibilities

(xi) ATC coordination procedures

(xii) Familiarisation with operations area, including classes of airspace and special areas of navigation

(xiii) Characteristics of special aerodromes

(2) AIRCRAFT CHARACTERISTICS:

(i) Aircraft specific flight preparation

(ii) Aircraft operating and performance characteristics

(iii) Navigation equipment, including peculiarities and limitations

(iv) Instrument approach and communication equipment

(v) Emergency equipment

(vi) Aircraft Flight Manual or Rotorcraft Flight Manual provisions applicable to the aircraft duties

(vii) MEL/CDL

(viii) Applicable equipment training

(3) OPERATIONS PROCEDURES.

(i) Adverse weather phenomena (wind-shear, clear air turbulence and thunderstorms)

(ii) Mass and balance computations and load control procedures

(iii) Aircraft performance computations, to include take-off mass limitations based on departure runway, arrival runway, and en-route limitations, and also engine-out limitations

(iv) Flight planning procedures, to include route selection, flight time, and fuel requirements analysis

(v) Dispatch release preparation

(vi) Crew briefings

(vii) Flight monitoring procedures

(viii) MEL and CDL procedures

(ix) Manual performance of all required procedures in case of the loss of automated capabilities

(x) Training in appropriate geographic areas

(xi) ATC and instrument procedures, ground hold and central flow control procedures

(xii) Radio/telephone procedures

(4) ABNORMAL AND EMERGENCY PROCEDURES.

(i) Assisting flight crew in an emergency

(ii) Alerting of appropriate governmental, company and private agencies

(5) CREW RESOURCES MANAGEMENT.

Note: IS 8.10.1.12 contains CRM training items.

(6) Dangerous goods

Note: IS 8.10.1.10 contains dangerous goods training items.

(7) Security

Note: ICAO Doc 9811, Manual on the Implementation of the Security Provisions of Annex 6, Chapter 3, provides additional guidance.

(8) Differences training

Note: IS 8.10.1.17 contains items on differences training.

(b) Each AOC holder shall ensure that initial ground training for FOOs includes a competency check given by an appropriately qualified dispatch supervisor or ground instructor that demonstrates the required knowledge and abilities.

(c) Each AOC holder shall ensure that initial ground training for FOOs consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) Reciprocating-engine aircraft – 30 hours

(2) Turbopropeller-powered aircraft – 40 hours

(3) Turbo-jet aircraft – 40 hours

IS 8.10.1.15 INITIAL AIRCRAFT FLIGHT TRAINING

(a) Each AOC holder shall ensure that pilot initial flight training includes at least the following training and practice in procedures related to the carrying out of pilot duties and functions. This training and practice may be accomplished either in flight or in an FSTD, as appropriate to the category and class of aircraft, and as approved by the Authority.

Note: The flight training events for pilots listed in this IS are generic in nature for a type-rated aeroplane training curriculum conducted in an FSTD. All of the events may not apply to all aircraft (e.g. one engine inoperative landing for mutli-engine versus single engine aeroplanes) or may differ in the requirements for a similar event (e.g. taxi for aeroplane, helicopter, and seaplane). Additional training events may need to be added, changed or deleted for aircraft based on aircraft category or class.

(1) PREPARATION.

(i) Aircraft pre-flight done by external walk around, unless the use of pictorial display is authorised by the Authority.

(ii) Pre-taxi procedures

(iii) Performance limitations

(iv) Surface operation

(v) Pushback

(vi) Powerback taxi, if applicable to the type of operation to be conducted

(vii) Starting

(viii) Taxi

(ix) Pre-take-off checks

(2) TAKE-OFF.

(i) Normal

(ii) Crosswind

(iii) Rejected

(iv) Power failure after V1

(v) Lower than standard minimum, if applicable to the type of operation to be conducted

(3) CLIMB.

(i) Normal

(ii) One-engine inoperative during climb to en-route altitude

(4) EN-ROUTE.

(i) Steep turns

(ii) Approaches to stalls (take-off, en-route, and landing configurations)

(iii) Inflight powerplant shutdown

(iv) Inflight powerplant restart

(v) High speed handling characteristics

(5) DESCENT.

(i) Normal

(ii) Maximum rate

(6) APPROACHES.

(i) VFR procedures

(ii) Visual approach with 50% loss of power of available powerplants

(iii) Visual approach with slat/flap malfunction

(iv) IFR PAs (ILS normal and ILS with one-engine inoperative)

(v) IFR NPAs (NDB normal and VOR normal)

Note 1: NPA with one engine inoperative may include LOC backcourse procedures, SDF/LDA, GPS, TACAN and circling approach procedures, as applicable to the operator's authorisations.

Note 2: Simulator shall be qualified for training/checking on the circling manoeuvre.

(vi) Missed approach from PA

(vii) Missed approach from NPA

(viii) Missed approach with powerplant failure

(7) LANDINGS.

(i) Normal with a pitch mistrim (small aircraft only)

(ii) Normal from precision instrument approach

(iii) Normal from precision instrument approach with most critical engine inoperative

(iv) Normal with 50% loss of power of available powerplants

(v) Normal with flap/slat malfunction

(vi) Rejected landings

(vii) Crosswind

(viii) Manual reversion/degraded control augmentation

(ix) Short/soft field (small aircraft only)

(x) Glassy/rough water (seaplanes only)

(xi) Auto-rotation (helicopter only)

(8) AFTER LANDING.

(i) Parking

(ii) Emergency evacuation

(iii) Docking, mooring, and ramping (seaplanes only)

(9) OTHER FLIGHT PROCEDURES DURING ANY AIRBORNE PHASE

(i) ACAS: use and avoidance maneuvers

(ii) Holding

(iii) Ice accumulation on airframe

(iv) Air hazard avoidance

(v) Windshear/ microburst

(10) NORMAL, ABNORMAL AND ALTERNATE SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Pneumatic/pressurisation

(ii) Air conditioning

(iii) Fuel and oil

(iv) Electrical

(v) Hydraulic

(vi) Flight controls

(vii) Anti-icing and de-icing systems

(viii) Autopilot

(ix) Flight management guidance systems and/or automatic or other approach and landing aids

(x) Stall warning devices, stall avoidance devices, and stability augmentation systems

(xi) Airborne weather radar

(xii) Flight instrument system malfunction

(xiii) Communications equipment

(xiv) Navigation systems

(11) EMERGENCY SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Aircraft fires

(ii) Smoke control

(iii) Powerplant malfunctions

(iv) Fuel jettison

(v) Electrical, hydraulic, pneumatic systems

(vi) Flight control system malfunction

(vii) Landing gear and flap system malfunction

(b) Each AOC holder shall ensure that FE flight training includes at least the following training and practice in procedures related to the carrying out of FE duties and functions. This training and practice may be accomplished either in flight or in an FSTD as approved by the Authority.

Note: The flight training events for FEs listed in this IS are generic in nature for a type-rated aeroplane training curriculum. Additional training events may need to be added, changed or deleted. The events listed are typically conducted in a FSTD, except as noted, and may be conducted in aircraft when appropriate

(1) PREPARATION.

(i) Airplane pre-flight

(ii) Logbook procedures

(iii) Safety checks

(iv) Cabin/interiors

(v) Exterior Walkaround

(vi) Servicing/de-icing

(vii) Use of Oxygen

(2) GROUND OPERATIONS.

(i) Performance Data

(A) TO/LND Data

(B) Airport Analysis

(C) Mass and Balance

(ii) Use of Checklist

(A) Panel setup

(iii) Starting

(A) External power

(B) External Air

(C) APU

(iv) Communications.

(A) Station Procedures

(B) ACARS

(v) Taxi

(3) TAKE-OFF

(i) Powerplant Control

(ii) Flaps/landing gear

(iii) Fuel management

(iv) Other Systems Operation

(v) Aircraft Performance

(vi) Checklist Completion

(4) CLIMB.

(i) Powerplant control

(ii) Fuel Management

(iii) Pressurisation

(iv) Electrical System

(v) Air Conditioning

(vi) Flight Controls

(vii) Other Systems

(5) EN-ROUTE.

(i) Powerplant Operation

(ii) Fuel Management

(iii) Performance Management

(iv) High Altitude Performance

(v) Other Systems Operation

(6) DESCENT.

(i) Powerplant operation

(ii) Other Systems Operation

(iii) Performance Management

(7) APPROACH.

(i) Landing Data

(ii) Landing Gear Operation

(iii) Flat/Slat/Spoiler Operation

(iv) Approach Monitoring

(8) LANDINGS.

(i) Powerplant Operation

(ii) Aircraft Configuration

(iii) System Operation

(A) Emergency Evacuation

(9) PROCEDURES DURING ANY GROUND OR AIRBORNE PHASE.

(i) Flight deck Equipment

(ii) Flap Slats/Gear

(iii) Powerplant

(iv) Pressurisation

(v) Pneumatic

(vi) Air Conditioning

(vii) Fuel and Oil

(viii) Electrical

(ix) Hydraulic

(x) Flight Controls

(xi) Anti-Icing and De-icing

(xii) Other Checklist Procedures

(c) Each AOC holder shall ensure that FN flight training includes at least the following training and practice in procedures related to the carrying out of FN duties and functions. This training and practice may be accomplished either in flight or in an FSTD, as approved by the Authority.

(1) Initial flight training for FNs shall include flight training and a flight check that is adequate to ensure the crew member's proficiency in the performance of his or her assigned duties.

(2) The flight training and check specified in paragraph (1) of this IS shall be performed:

(i) In-flight or in an appropriate FSTD; or

(ii) In commercial air transport operations, if performed under the supervision of a qualified FN instructor or check navigator, as applicable.

(d) Each AOC holder shall ensure that initial flight training for pilots and FEs consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority:

(1) For one pilot in either an aircraft or an FSTD:

(i) Reciprocating-engine aircraft—PIC: 14 hours; CP: 14 hours; and FE: 12 hours.

(ii) Turbopropeller-powered aircraft—PIC: 15 hours; CP: 15 hours; and FE: 12 hours.

(iii) Turbo-jet aircraft—PIC: 20 hours; CP: 16 hours; and FE; 12 hours.

(iv) Other aircraft—PIC and CP: 14 hours.

(2) For two pilots in an FSTD:

(i) Reciprocating-engine aircraft—PIC: 24 hours; CP: 24 hours; and FE: 20 hours.

(ii) Turbopropeller-powered aircraft—PIC: 24 hours; CP: 24 hours; and FE: 20 hours.

(iii) Turbo-jet aircraft—PIC: 28 hours; CP: 28 hours; and FE: 20 hours.

(iv) Other aircraft—PIC and CP: 24 hours

Note: Training times in item (d) of this IS are higher than in 14 CFR and are taken from the FAA national norms in FAA Order 8900.1.

IS 8.10.1.16 INITIAL SPECIALISED OPERATIONS TRAINING

(a) Each AOC holder shall provide initial specialised operations training to ensure that each pilot and FOO is qualified in the type of operation in which he or she serves and in any specialised or new equipment, procedures, and techniques, such as:

(1) LORAN.

(i) Knowledge of specialised navigation procedures, such as MNPS, NPAC.

(ii) Knowledge of specialised equipment, such as INS, LORAN, GPS.

(2) CAT II and CAT III approaches.

(3) Special equipment, procedures and practice.

(4) A demonstration of competency.

(5) LVTO operations.

(i) Runway and lighting requirements.

(ii) Rejected take-offs at, or near, V1 with a failure of the most critical engine.

(iii) Taxi operations.

(iv) Procedures to prevent runway incursions under low visibility conditions.

(6) Extended range operations with two engine aeroplanes.

(7) Approaches using on-board radar.

(8) Autopilot instead of CP

IS 8.10.1.17 AIRCRAFT DIFFERENCES

(a) Each AOC holder shall provide aircraft differences training for FOOs when the operator has aircraft variances within the same type of aircraft, which includes at least the following:

(1) OPERATIONS PROCEDURES.

(i) Operations under adverse weather phenomena conditions, including clear air turbulence, windshear and thunderstorms

(ii) Mass and balance computations and load control procedures

(iii) Aircraft performance computations, to include take-off mass limitations based on departure runway, arrival runway, and en-route limitations, and also engine-out limitations

(iv) Flight planning procedures, to include route selection, flight time, and fuel requirements analysis

(v) Dispatch release preparation

(vi) Crew briefings

(vii) Flight monitoring procedures

(viii) Flight crew response to various emergency situations, including the assistance the aircraft FOO can provide in each situation.

(ix) MEL and CDL procedures.

(x) Manual performance of required procedures in case of the loss of automation capabilities.

(xi) Training in appropriate geographic areas.

(xii) ATC and instrument procedures, to include ground hold and central flow control procedures.

(xiii) Radio/telephone procedures.

(2) EMERGENCY PROCEDURES:

(i) Actions taken to aid the flight crew.

(ii) AOC holder and Authority notification

Note 1: The FAA Flight Standardisation Board, the Transport Canada and JAA Joint Operations Evaluation Board have a harmonised process and their reports are a source for differences training.

Note 2: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 3: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

IS 8.10.1.20 PILOT PROFICIENCY – AIRCRAFT AND INSTRUMENT PROFICIENCY CHECKS

(a) Aircraft and instrument proficiency checks for PIC and CP shall include the following operations and procedures listed in the appropriate skill test in Part 2 of these regulations, on each type or variant of type of aircraft.

(b) The oral and flight test phases of a proficiency check shall not be conducted simultaneously.

(c) When the check person determines that an applicant's performance is unsatisfactory, the check person may terminate the flight test immediately or, with the consent of the applicant, continue with the flight test until the remaining events are completed.

(d) If the check must be terminated (for mechanical or other reasons) and there are events which still need to be repeated, the check person shall issue a letter of discontinuance, valid for 60 days, listing the specific areas of operation that have been successfully completed.

(e) Satisfactory completion of a proficiency check following completion of an approved air carrier training programme for the particular type aircraft, satisfies the requirement for an aircraft type rating skill test if:

(1) That proficiency check includes all manoeuvres and procedures required for a type rating skill test.

(2) Proficiency checks are to be conducted by a check person approved by the Authority.

(f) The PIC proficiency check given in accordance with Part 8 may be used to satisfy the proficiency requirements of Part 2 of these regulations to act as a PIC.

(g) The CP proficiency check given in accordance with Part 8 may be used to satisfy the proficiency requirements of Part 2 to act as a CP.

(h) The AOC holder may combine recurrent training with the AOC holder's proficiency check if approved to do so by the Authority.

IS 8.10.1.22 PAIRING OF LOW-EXPERIENCE PILOTS

(a) Situations designated as critical by the Authority at special aerodromes designated by the Authority or at special aerodromes designated by the AOC holder include:

(1) The prevailing visibility value in the latest weather report for the aerodrome is at or below 1,200 m (3/4 SM).

(2) The RVR for the runway to be used is at or below 1,200 m (4,000 ft).

(3) The runway to be used has water, snow, slush or similar conditions that may adversely affect aircraft performance.

(4) The braking action on the runway to be used is reported to be less than "good".

(5) The crosswind component for the runway to be used is in excess of 15 knots.

(6) Windshear is reported in the vicinity of the aerodrome.

(7) Any other condition in which the PIC determines it to be prudent to exercise the PIC's prerogative.

(b) Circumstances that would be routinely be considered for deviation from the required minimum line operating flight time include:

(1) A newly certificated AOC holder does not employ any pilots who meet the minimum flight time requirements;

(2) An existing AOC holder adds to its fleet a type aircraft not before proven for use in its operations; or

(3) An existing AOC holder establishes a new domicile to which it assigns pilots who will be required to become qualified on the aircraft operated from that domicile.

Note: ICAO Doc 9376, Preparation of an Operations Manual, provides additional guidance.

IS 8.10.1.24 COMPETENCY CHECKS – CABIN CREW MEMBERS

(a) A check cabin crew member, approved by the Authority, shall conduct competency checks for cabin crew members in the following areas to demonstrate that each candidate's competency level is sufficient to successfully perform assigned duties and responsibilities.

(1) EMERGENCY EQUIPMENT, AS APPLICABLE.

(i) Emergency communication and notification systems

(ii) Aircraft exits

(iii) Exits with slides or slide rafts (emergency operation)

(iv) Slides and slide rafts in a ditching

(v) Exits without slides (emergency operation)

(vi) Window exits (emergency operation)

(vii) Exits with tailcones (emergency operation)

(viii) Flight deck exits (emergency operation)

(ix) Ground evacuation and ditching equipment

(x) First aid equipment

(xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, PBE)

(xii) Fire fighting equipment

(xiii) Emergency lighting systems

(xiv) Additional emergency equipmen

(2) EMERGENCY PROCEDURES:

(i) General types of emergencies specific to aircraft

(ii) Emergency communication signals and procedures

(iii) Rapid decompression

(iv) Insidious decompression and cracked window and pressure seal leaks

(v) Fires

(vi) Ditching

(vii) Ground evacuation

(viii) Unwarranted evacuation (i.e., Passenger initiated)

(ix) Illness or injury

(x) Abnormal situations involving passengers or crew members

(xi) Turbulence

(xii) Other unusual situations

(3) EMERGENCY DRILLS.

(i) Location and use of all emergency and safety equipment carried on the aeroplane

(ii) The location and use of all types of exits

(iii) Actual donning of a lifejacket where fitted

(iv) Actual donning of PBE

(v) Actual handling of fire extinguishers

(4) CREW RESOURCE MANAGEMENT.

(i) Decision-making skills

(ii) Briefings and developing open communication

(iii) Inquiry, advocacy, and assertion training

(iv) Workload management

(5) DANGEROUS GOODS.

(i) Recognition of and transportation of dangerous goods.

(ii) Proper packaging, marking, and documentation.

(iii) Instructions regarding compatibility, loading, storage and handling characteristics.

(6) SECURITY.

(i) Hijacking

IS 8.10.1.25 COMPETENCY CHECKS – FLIGHT OPERATIONS OFFICERS

(a) A check FOO, approved by the Authority, shall conduct competency checks for FOOs in at least the following areas to demonstrate that each candidate's competency level is sufficient to successfully perform assigned duties and responsibilities.

(1) Use of communications systems including the characteristics of those systems and the appropriate normal and emergency procedures;

(2) Meteorology, including various types of meteorological information and forecasts, interpretation of weather data (including forecasting of en-route and terminal temperatures and other weather conditions), frontal systems, wind conditions, and use of actual and prognostic weather charts for various altitudes;

(3) The NOTAM system;

(4) Navigational aids and publications;

(5) Joint dispatcher-pilot responsibilities;

(6) Characteristics of appropriate airports;

(7) Prevailing weather phenomena and the available sources of weather information;

(8) Air traffic control and IAPs; and

(9) Approved dispatcher resource management initial training.

IS 8.10.1.33 RECURRENT TRAINING – FLIGHT CREW MEMBERS

(a) Each AOC holder shall establish a recurrent training programme for all flight crew members in the AOC holder’s OM and shall have it approved by the Authority.

(b) Each flight crew member shall undergo recurrent training relevant to the type or variant of aircraft on which he or she is certificated to operate and for the crew member position involved.

(c) Each AOC holder shall have all recurrent training conducted by suitably qualified personnel.

(d) Each AOC holder shall ensure that flight crew member recurrent ground training includes at least the following:

(1) GENERAL SUBJECTS.

(i) Flight locating procedures

(ii) Principles and method for determining mass/balance and runway limitations

(iii) Meteorology to ensure practical knowledge of weather phenomena including the principles of frontal system, icing, fog, thunderstorms, windshear, and high-altitude weather situations

(iv) ATC systems and phraseology

(v) Navigation and use of navigational aids

(vi) Normal and emergency communication procedures

(vii) Visual cues before descent to MDA

(viii) Accident/incident and occurrence review

(ix) Other instructions necessary to ensure the pilot's competence

(2) AIRCRAFT SYSTEMS AND LIMITATIONS.

(i) Normal, abnormal, and emergency procedures

(ii) Aircraft performance characteristics

(iii) Engines and, if applicable, propellers

(iv) Major aircraft components

(v) Major aircraft systems (i.e., flight controls, electric, hydraulic and other systems as appropriate)

(3) GROUND ICING AND DE-ICING PROCEDURES AND REQUIREMENTS.

(4) EMERGENCY EQUIPMENT AND DRILLS.

(5) EVERY 12 MONTHS.

(i) Location and use of all emergency and safety equipment carried on the aeroplane

(ii) The location and use of all types of exits

(iii) Actual donning of a lifejacket where fitted

(iv) Actual donning of PBE

(v) Actual handling of fire extinguishers

(6) EVERY 3 YEARS.

(i) Operation of all types of exits

(ii) Demonstration of the method used to operate a slide, where fitted

(iii) Fire-fighting using equipment representative of that carried in the aeroplane on an actual or simulated fire

Note: With Halon extinguishers, an alternative method acceptable to the Authority may be used.

(iv) Effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment

(v) Actual handling of pyrotechnics, real or simulated, where fitted

(vi) Demonstration in the use of the life raft(s), where fitted

(vii) An emergency evacuation drill

(viii) A ditching drill, if applicable

(ix) A rapid decompression drill, if applicable

(x) Survival suits, if applicable to the operation

(7) CREW RESOURCE MANAGEMENT:

(i) Decision-making skills

(ii) Briefings and developing open communication

(iii) Inquiry, advocacy, and assertion training

(iv) Workload management

(v) Situational awareness

(8) DANGEROUS GOODS.

(i) Recognition of and transportation of dangerous goods

(ii) Proper packaging, marking, and documentation

(iii) Instructions regarding compatibility, loading, storage and handling characteristics

(9) SECURITY.

(i) Hijacking

(ii) Disruptive passengers

(e) Each AOC holder shall verify knowledge of the recurrent ground training by an oral or written examination.

(f) Each AOC holder shall ensure that pilot recurrent flight training include at least the following:

Note: Flight training may be conducted in an appropriate aircraft, in an adequate FSTD, or in a combination of aircraft and FSTD, as approved by the Authority.

(1) PREPARATION.

(i) Visual inspection (use of pictorial display authorised).

(ii) Pre-taxi procedures.

(2) GROUND OPERATION:

(i) Performance limitations

(ii) Flight deck management

(iii) Securing cargo

(iv) Pushback

(v) Powerback taxi, if applicable

(vi) Starting

(vii) Taxi

(viii) Pre-take-off checks

(3) TAKE-OFF.

(i) Normal

(ii) Crosswind

(iii) Rejected

(iv) Power failure after V1

(v) Powerplant failure during second segment

(vi) LVTO Operations

(4) CLIMB.

(i) Normal

(ii) One-engine inoperative climb to en-route altitude

(5) EN-ROUTE.

(i) Steep turns

(ii) Approaches to stalls (take-off, en-route, and landing configurations)

(iii) Inflight powerplant shutdown

(iv) Inflight powerplant restart

(v) High speed handling characteristics

(6) DESCENT.

(i) Normal

(ii) Maximum rate

(7) APPROACHES.

(i) VFR procedures

(ii) Visual approach with 50% loss of power of available powerplants

(iii) Visual approach with slat/flap malfunction

(iv) IFR PAs (ILS normal and ILS with one-engine inoperative)

(v) IFR NPAs (NDB normal and VOR normal)

(vi) NPA with one engine inoperative (LOC backcourse, SDF/LDA, GPS, TACAN and circling approach procedures)

Note: An FSTD shall not be used for training and checking on the circling manoeuvre unless it has been qualified for circling manoeuvres. To participate in that training and checking, the operator shall be approved by the Authority to conduct circling manoeuvres.

(vii) Missed approach from PA

(viii) Missed approach from NPA

(ix) Missed approach with powerplant failure

(8) LANDINGS.

(i) Abnormal with a pitch mistrim (small aircraft only)

(ii) Abnormal from precision instrument approach

(iii) Abnormal from precision instrument approach with most critical engine inoperative

(iv) Abnormal with 50% loss of power of available powerplants

(v) Abnormal with flap/slat malfunction

(vi) Rejected landings

(vii) Crosswind

(viii) Short/soft field (small aircraft only)

(ix) Glassy/rough water (seaplanes only)

(x) Auto-rotation (helicopter only)

(9) AFTER LANDING.

(i) Parking

(ii) Emergency evacuation

(iii) Docking, mooring, and ramping (seaplanes only)

(10) OTHER FLIGHT PROCEDURES DURING ANY AIRBORNE PHASE.

(i) ACAS: use and avoidance manoeuvres

(ii) Holding

(iii) Ice accumulation on airframe

(iv) Air hazard avoidance

(v) Windshear/microburst

(11) NORMAL, ABNORMAL AND ALTERNATE SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Pneumatic/pressurisation

(ii) Air conditioning

(iii) Fuel and oil

(iv) Electrical

(v) Hydraulic

(vi) Flight controls

(vii) Anti-icing and de-icing systems

(viii) Flight management guidance systems and/or automatic or other approach and landing aids

(ix) Stall warning devices, stall avoidance devices, and stability augmentation systems

(x) Airborne weather radar

(xi) Flight instrument system malfunction

(xii) Communications equipment

(xiii) Navigation systems

(xiv) Autopilot

(xv) Approach and landing aids

(xvi) Flight instrument system malfunction

(12) EMERGENCY SYSTEMS PROCEDURES DURING ANY PHASE.

(i) Aircraft fire

(ii) Smoke control

(iii) Powerplant malfunctions

(iv) Fuel jettison

(v) Electrical, hydraulic, pneumatic systems

(vi) Flight control system malfunction

(vii) Landing gear and flap system malfunction

(g) Each AOC holder shall ensure that FE recurrent flight training includes at least the flight training specified in IS: 8.10.1.15(b).

(h) Each AOC holder shall ensure that FN recurrent training includes enough training and an in-flight check to ensure competency with respect to operating procedures and navigation equipment to be used and familiarity with essential navigation information pertaining to the AOC holder's routes that require a FN.

(i) The AOC holder may combine recurrent training with the AOC holder's proficiency check if approved by the Authority.

(j) Recurrent ground and flight training curricula may be accomplished concurrently or intermixed, but completion of each of these curricula shall be recorded separately.

IS 8.10.1.34 RECURRENT NORMAL AND EMERGENCY TRAINING – CABIN CREW MEMBERS

(a) Each AOC holder shall establish and have approved by the Authority a recurrent training programme for all cabin crew members.

(b) Each cabin crew member shall undergo recurrent training in evacuation and other appropriate normal and emergency procedures and drills relevant to his or her assigned positions and the type(s) and/or variant(s) of aircraft on which he or she operates.

(c) Each AOC holder shall have all recurrent training conducted by suitably qualified personnel.

(d) Each AOC holder shall ensure that, every 12 months, each cabin crew member receive recurrent training in at least the following:

(1) EMERGENCY EQUIPMENT, IF APPLICABLE.

(i) Emergency communication and notification systems

(ii) Aircraft exits

(iii) Exits with slides or slide rafts (emergency operation)

(iv) Slides and slide rafts in a ditching

(v) Exits without slides (emergency operation)

(vi) Window exits (emergency operation)

(vii) Exits with tailcones (emergency operation)

(viii) Flight deck exits (emergency operation)

(ix) Ground evacuation and ditching equipment

(x) First aid equipment

(xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, PBE)

(xii) Fire fighting equipment

(xiii) Emergency lighting systems

(xiv) Additional emergency equipment

(2) EMERGENCY PROCEDURES:

(i) General types of emergencies specific to aircraft

(ii) Emergency communication signals and procedures

(iii) Rapid decompression

(iv) Insidious decompression and cracked window and pressure seal leaks

(v) Fires

(vi) Ditching

(vii) Ground evacuation

(viii) Unwarranted evacuation (i.e., passenger initiated)

(ix) Illness or injury

(x) Abnormal situations involving passengers or crew members

(xi) Turbulence

(xii) Other unusual situations

(3) EMERGENCY DRILLS.

(4) EVERY 12 MONTHS.

(i) Location and use of all emergency and safety equipment carried on the aeroplane

(ii) The location and use of all types of exits

(iii) Actual donning of a lifejacket where fitted

(iv) Actual donning of PBE

(v) Actual handling of fire extinguishers

(5) EVERY 3 YEARS.

(i) Operation of all types of exits

(ii) Demonstration of the method used to operate a slide, where fitted

(iii) Fire-fighting using equipment representative of that carried in the aeroplane on an actual or simulated fire

Note: With Halon extinguishers, an alternative method acceptable to the Authority may be used.

(iv) Effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment

(v) Actual handling of pyrotechnics, real or simulated, where fitted

(vi) Demonstration in the use of the life-raft(s), where fitted

(vii) An emergency evacuation drill

(viii) A ditching drill, if applicable

(ix) A rapid decompression drill, if applicable

(x) Survival suits, if applicable to the operation

(6) CREW RESOURCE MANAGEMENT.

(i) Decision-making skills

(ii) Briefings and developing open communication

(iii) Inquiry, advocacy, and assertion training

(iv) Workload management

(7) DANGEROUS GOODS:

(i) Recognition of and transportation of dangerous goods

(ii) Proper packaging, marking, and documentation

(iii) Instructions regarding compatibility, loading, storage and handling characteristics

(8) SECURITY.

(i) Hijacking

(ii) Disruptive passengers

(e) Each AOC holder shall verify knowledge of the recurrent training by an oral or written examination.

(f) An AOC holder, if approved by the Civil Aviation Authority, may administer each of the recurrent training curricula concurrently or intermixed, but shall record completion of each of these curricula separately.

IS 8.10.1.35 RECURRENT TRAINING – FLIGHT OPERATIONS OFFICERS

(a) Each AOC holder shall establish and maintain a recurrent training programme, approved by the Authority and established in the AOC holder's OM, to be completed annually by each FOO.

(b) Each FOO shall undergo recurrent training relevant to the type(s) and/or variant(s) of aircraft and the operations conducted by the AOC holder, and that training shall consist of at least the following hours of instruction:

(1) Reciprocating-engine aircraft – 8 hours

(2) Turbopropeller-powered aircraft – 10 hours

(3) Turbo-jet aircraft – 20 hours

(4) Other aircraft to include rotorcraft– 10 hours

(c) Each AOC holder shall have all recurrent training conducted by an appropriately qualified instructor.

(d) An AOC holder shall ensure that, every 12 months, each FOO receives recurrent training in the subjects required for initial training listed in IS: 8.10.1.14D in sufficient detail to ensure competency in each specified area of training. Operators may choose to provide in-depth coverage of selected subjects on any one cycle of training. In such cases the operator's training programme shall cover all the subjects to the detail required for initial qualification within three years.

(e) Each AOC holder shall verify knowledge of the recurrent training by an oral or written examination.

(f) An AOC holder shall record completion of the required training.

IS 8.10.1.37 INSTRUCTOR TRAINING

(a) FLIGHT CREW INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as flight instructor in a training programme unless:

(i) That person has satisfactorily completed initial or transition flight instructor training; and

(ii) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check personnel.

(2) An AOC holder may accomplish the observation check for a flight instructor, in part or in full, in an aircraft or an FSTD.

(3) Each AOC holder shall ensure that initial ground training for flight instructors includes the following:

(i) Flight instructor duties, functions, and responsibilities.

(ii) Applicable regulations and the AOC holder's policies and procedures.

(iii) Appropriate methods, procedures, and techniques for conducting the required checks.

(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training; and

(B) Personal characteristics of an applicant that could adversely affect safety.

(C) Appropriate corrective action in the case of unsatisfactory checks.

(D) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(v) Except for holders of existing flight instructor licences:

(A) The fundamental principles of the teaching-learning process;

(B) Teaching methods and procedures; and

(C) The instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for flight instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the flight instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition flight training for flight instructors includes the following:

(i) The safety measures for emergency situations that are likely to develop during instruction.

(ii) The potential results of improper, untimely, or non-execution of safety measures during instruction.

(iii) For pilot flight instructor (aircraft):

(A) Inflight training and practice in conducting flight instruction from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence as an instructor; and

(B) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during instruction.

(6) For FE instructors and FN instructors, in-flight training to ensure competence to perform assigned duties.

(7) An AOC holder may accomplish the flight training requirements for flight instructors in full or in part in flight or in an FSTD, as appropriate.

(8) An AOC holder shall ensure that the initial and transition flight training for flight instructors (flight simulation training device) includes the following:

(i) Training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this part. This training and practice shall be accomplished in full or in part in an FSTD.

(ii) Training in the operation FSTDs, to ensure competence to conduct the flight instruction required by this Part.

(b) CABIN CREW INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as cabin instructor in a training programme unless:

(i) That person has satisfactorily completed initial or transition cabin instructor training; and

(ii) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check airman.

(2) An AOC holder may accomplish the observation check for a cabin instructor, in part or in full, in an aircraft or a cabin simulation training device.

(3) Each AOC holder shall ensure that initial ground training for cabin instructors includes the following:

(i) Cabin instructor duties, functions, and responsibilities.

(ii) Applicable regulations and the AOC holder's policies and procedures.

(iii) Appropriate methods, procedures, and techniques for conducting the required checks.

(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training; and

(B) Personal characteristics of an applicant that could adversely affect safety.

(v) Appropriate corrective action in the case of unsatisfactory checks.

(vi) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft, as applicable.

(vii) Except for existing cabin instructors:

(A) The fundamental principles of the teaching-learning process;

(B) Teaching methods and procedures; and

(C) The instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for cabin instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft, as appropriate to which the cabin instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition flight training for cabin instructors includes the following:

(i) The safety measures for emergency situations that are likely to develop during instruction.

(ii) The potential results of improper, untimely, or non-execution of safety measures during instruction.

(c) FLIGHT OPERATIONS OFFICER INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as FOO instructor in a training programme unless:

(i) That person has satisfactorily completed initial or transition FOO instructor training; and

(ii) Within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check FOO.

(2) An AOC holder may accomplish the observation check for a FOO instructor, in part or in full, in a flight operations centre.

(3) Each AOC holder shall ensure that initial ground training for FOO instructors includes the following:

(i) FOO instructor duties, functions, and responsibilities.

(ii) Applicable regulations and the AOC holder's policies and procedures.

(iii) Appropriate methods, procedures, and techniques for conducting the required checks.

(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training; and

(B) Personal characteristics of an applicant that could adversely affect safety.

(v) Appropriate corrective action in the case of unsatisfactory checks.

(vi) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures for the aircraft or position involved.

(vii) Except for holders of existing FOO instructor licences:

(A) The fundamental principles of the teaching-learning process;

(B) Teaching methods and procedures; and

(C) The instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for FOO instructors includes the approved methods, procedures and limitations for performing the required normal, abnormal and emergency procedures applicable to the aircraft or position involved to which the FOO instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition training for flight operations officer instructors includes the following:

(i) The safety measures for emergency situations that are likely to develop during instruction in a flight operations centre.

(ii) The potential results of improper, untimely or non-execution of safety measures during instruction in a flight operations centre.

(d) DANGEROUS GOODS INSTRUCTOR TRAINING.

(1) No operator may use a person, nor may any person serve as dangerous goods instructor in a training programme unless:

(i) That person has satisfactorily completed dangerous goods training in the applicable dangerous goods category prior to delivering such a dangerous goods training programme.

(ii) That person has within the preceding 24 calendar months, satisfactorily conducted initial or recurrent instructions or in the absence undergoes recurrent training.

IS 8.10.1.40 CHECK PERSONNEL TRAINING

(a) TRAINING FOR CHECK PERSONNEL – GENERAL.

(1) No operator may use a person, nor may any person serve as a check person in a training programme unless, with respect to the aircraft type involved, that person has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as PIC, FE, navigator, cabin crew member, or FOO, as applicable.

(2) Each AOC holder shall ensure that initial ground training for check personnel includes:

(i) Check personnel duties, functions, and responsibilities.
(ii) Applicable regulations and the AOC holder's policies and procedures.
(iii) Appropriate methods, procedures, and techniques for conducting the required checks.
(iv) Proper evaluation of student performance including the detection of:

(A) Improper and insufficient training.

(v) Personal characteristics of an applicant that could adversely affect safety.

(A) Appropriate corrective action in the case of unsatisfactory checks.
(B) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(3) Transition ground training for all check personnel, shall include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the check person is in transition.

(b) TRAINING FOR CHECK PERSONNEL OF FLIGHT CREW.

(1) For check persons, each AOC holder shall ensure that the initial and transition flight training includes:

(i) Training and practice in conducting flight evaluations (from the left and right pilot seats for pilot check persons in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks.
(ii) The potential results of improper, untimely or non-execution of safety measures during an evaluation.
(iii) The safety measures (to be taken from either pilot seat for check persons for emergency situations that are likely to develop during an evaluation.

(2) For check persons and check flight navigators, each AOC holder shall ensure training to ensure competence to perform assigned duties to include:

(i) The safety measures for emergency situations that are likely to develop during a check.
(ii) The potential results of improper, untimely or non-execution of safety measures during a check.

(3) Each AOC holder shall ensure that the initial and transition flight training for check personnel (simulator) includes:

(i) Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the checks required by this part (this training and practice shall be accomplished in an FSTD).
(ii) Training in the operation of FSTDs, to ensure competence to conduct the checks required by this Part.

(4) An AOC holder may accomplish flight training for check personnel, in full or in part in an aircraft or in an FSTD, as appropriate.
(5) The AOC holder shall record the training in each individuals training record maintained by the AOC holder.

(c) TRAINING FOR CHECK CABIN CREW MEMBERS.

(1) For check cabin crew members, each AOC holder shall ensure that the training includes:

(i) The safety measures for emergency situations that are likely to develop during a check; and
(ii) The potential results of improper, untimely or non-execution of safety measures during a check.

(d) TRAINING FOR CHECK FLIGHT OPERATIONS OFFICERS.

(1) For check FOO, each AOC holder shall ensure that the training includes:

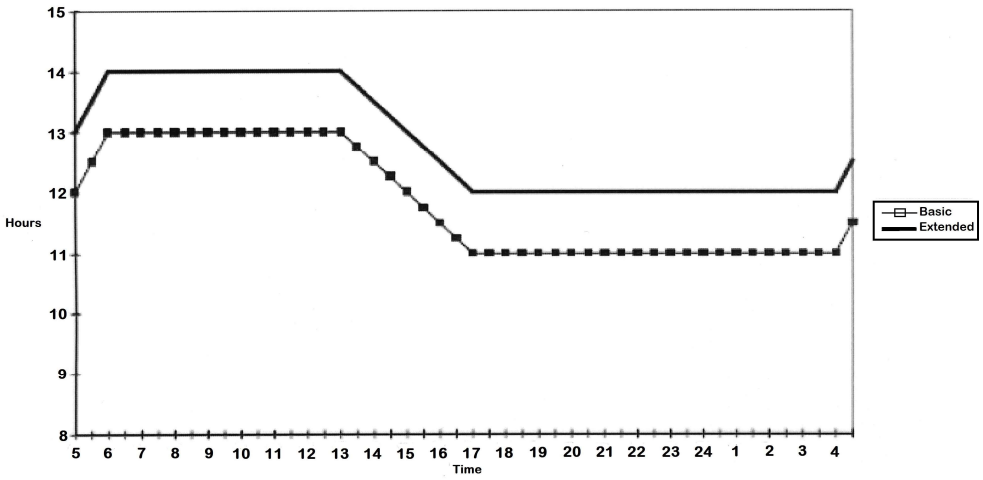
(i) The safety measures for emergency situations that are likely to develop during a check; and
(ii) The potential results of improper, untimely or non-execution of safety measures during a check.

(2) The AOC holder shall record the training in each individuals training record maintained by the AOC holder.

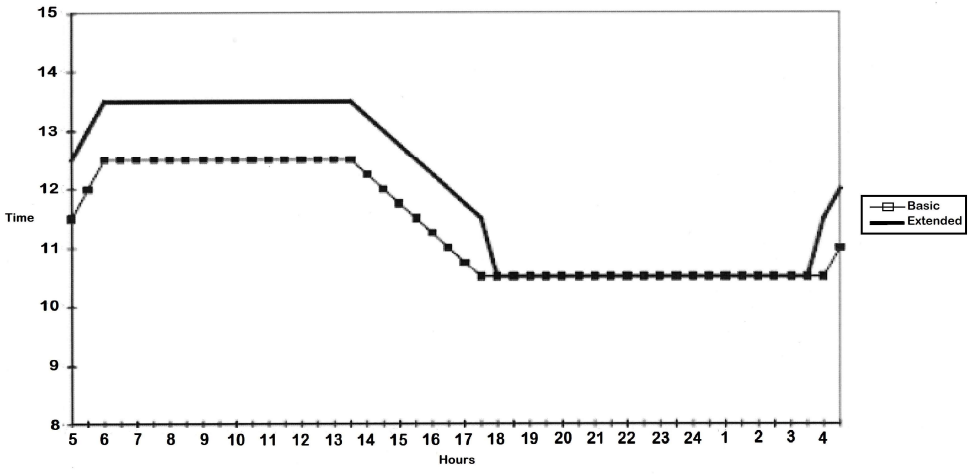
IS 8.12.1.4 DUTY AND REST PERIODS

Each AOC holder, scheduling official and crew member shall use the following tables as appropriate, to consolidate all scheduling and actual event requirements with respect to crew member flight time, duty and rest periods for commercial air transport operations.

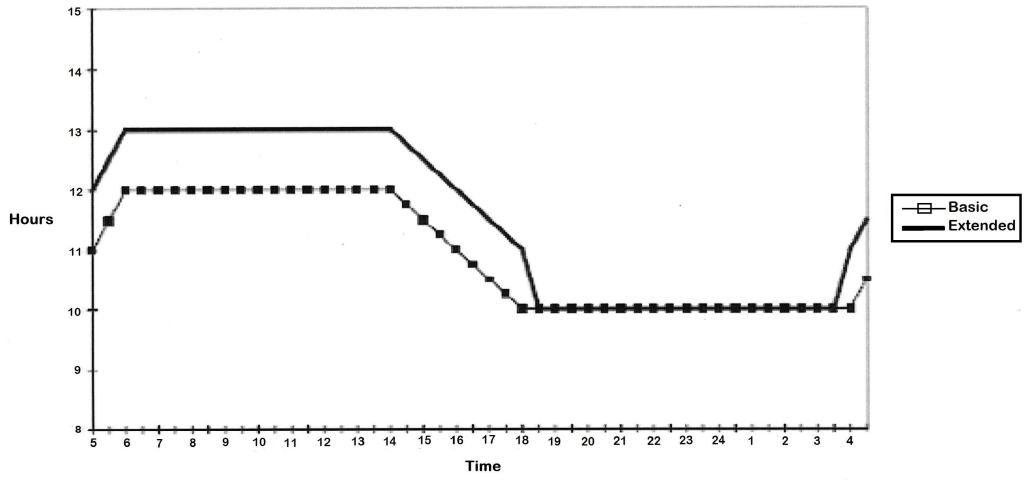
1 & 2 SECTOR FDP



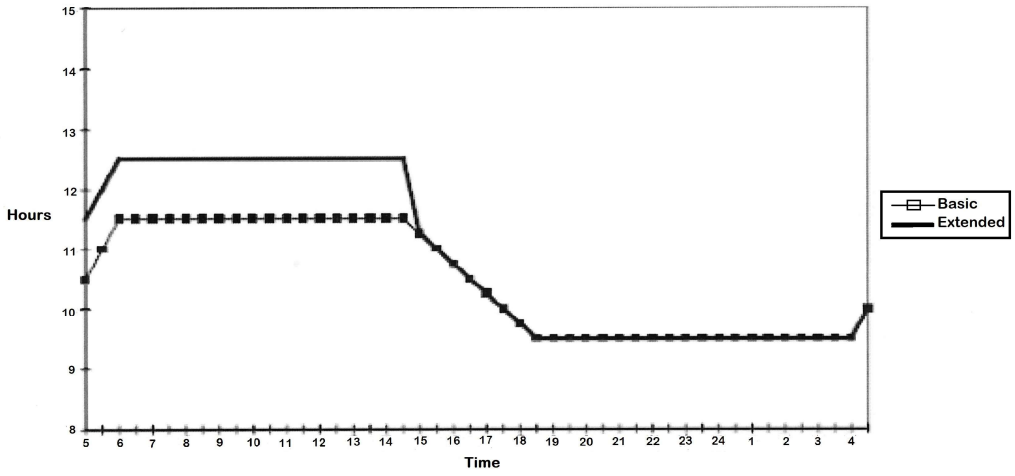
3 SECTOR FDP



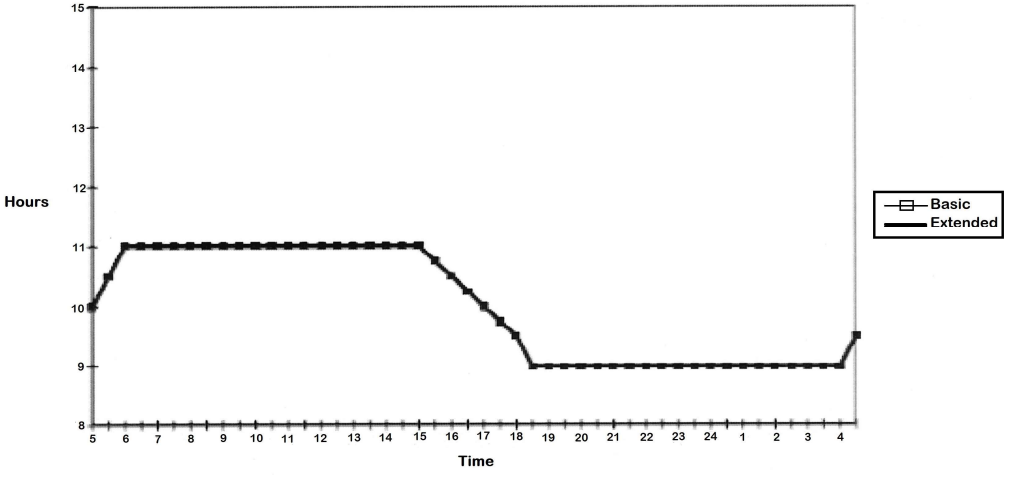
4 SECTOR FDP



5 SECTOR FDP



6 SECTOR FDP



CURAÇAO CIVIL AVIATION REGULATIONS

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PART 9 – AIR OPERATOR CERTIFICATION AND ADMINISTRATION

9.1 GENERAL

9.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for the carriage by air of passengers, cargo, or mail for remuneration or hire by persons or organisations whose principal place of business or permanent residence is located in Curaçao.

(b) Except where specifically noted, this part applies to all commercial air transport operations by AOC holders for which Curaçao is the State of the Operator under the definitions provided in ICAO Annex 6 and Part 1 of these regulations.

9.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

9.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AC –** Advisory Circular

(2) **ACAS –** airborne collision avoidance system

(3) **AD –** Airworthiness Directive

(4) **AFM –** Aircraft Flight Manual

(5) **AMO –** approved maintenance organisation

(6) **AMT –** aviation maintenance technician

(7) **AOC –** air operator certificate

(8) **AOM –** Aircraft Operating Manual

(9) **ATC –** air traffic control

(10) **ATPL –** air transport pilot licence

(11) **ATS –** air traffic service

(12) **CAST –** Commercial Aviation Safety Team

(13) **CAT I –** Category I

(14) **CAT II –** Category II

(15) **CAT III –** Category III

(16) **CCAA –** Curaçao Civil Aviation Authority

(17) **CDL –** configuration deviation list

(18) **DH –** decision height

(19) **EDTO –** extended diversion time operation

(20) **EFB –** electronic flight bag

(21) **EVS –** enhanced vision system

(22) **FAA –** Federal Aviation Administration

(23) **FDAP –** flight data analysis programme

(24) **FDR –** flight data recorder

(25) **FOO –** flight operations officer

(26) **FRMS –** fatigue risk management system

(27) **HUD –** head-up display

(28) **ICAO –** International Civil Aviation Organization

(29) **IMC –** instrument meteorological conditions

(30) **IS –** Implementing Standard

(31) **MCM –** Maintenance Control Manual

(32) **MEL –** minimum equipment list

(33) **OM –** Operations Manual

(34) **PBN –** performance-based navigation

(35) **PIC –** pilot-in-command

(36) **RFFS –** rescue and fire fighting service

(37) **RNP –** required navigation performance

(38) **RVR –** runway visual range

(39) **SMM –** Safety Management Manual

(40) **SMS –** safety management system

(41) **SOP –** standard operating procedure

(42) **ULD –** unit load device

(43) **VFR –** visual flight rules

9.1.1.4 EXEMPTION AUTHORITY

(a) The Authority may, upon consideration of the circumstances of a particular operator, issue an exemption providing relief from specified sections of this part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.

(b) The Authority may terminate or amend an exemption at any time.

(c) A request for exemption shall be made in accordance with the requirements of Part 1 of these regulations.

(d) Each operator that receives an exemption shall have a means of notifying the appropriate management and personnel of the exemption.

9.2 AIR OPERATOR CERTIFICATE

9.2.1.1 APPLICABILITY

(a) This subpart prescribes the requirements for the certification of an air operator and the continued validity of the AOC issued by Curaçao.

9.2.1.2 GENERAL

(a) No person or organisation may operate as a certificated air operator without, or in violation of, an AOC and its associated operations specifications issued under this part.

(b) Each certificated air operator shall, at all times, continue in compliance with the AOC terms, conditions of issuance, and continuing airworthiness requirements in order to hold that certificate. Failure to comply may result in the revocation or suspension of the AOC.

(c) Each certificated air operator shall develop policies and procedures for third parties that perform work on its behalf.

9.2.1.3 CONTENTS OF AN AOC

(a) The AOC issued to an air operator by Curaçao will consist of two documents:

(1) A one-page certificate for public display signed by the Authority; and

(2) Operations specifications signed by the executive manager and the Authority.

(b) The certificate will contain the following items and will be issued on a form and in a manner as prescribed in IS 9.2.1.3(B):

(1) The State of the Operator and the Issuing Authority;

(2) The AOC number and its expiration date;

(3) The operator name, trading name (if different), and address of the principal place of business;

(4) Telephone, facsimile, and email;

(5) The location, in a controlled document carried on board, where the contact details of operational management can be found; and

(6) The date of issue and the name, signature, and title of the Authority representative.

(c) The operations specifications will contain the following and will be issued on a form and in a manner as prescribed in IS 9.2.1.3(C):

(1) The Issuing Authority contact details;

(2) The operator name, trading name (if different), and AOC number;

(3) The date of issue and signature of the Authority representative;

(4) The make, model, and series of each aircraft in the operator's fleet;

(5) Types and areas of operation; and

(6) The special limitations and specific approvals.

Note: If the specific approvals and special limitations are identical for two or more models, these models may be grouped in a single list.

(d) When the AOC and associated operations specifications are issued by the State of the Operator in a language other than English, an English translation will be included.

(e) Each AOC holder shall carry on board its aircraft a certified true copy of the AOC and a copy of the associated operations specifications relevant to the aircraft.

(f) The air operator certificates and their associated operations specifications first issued from 20 November 2008 shall follow the layouts prescribed in IS 9.2.1.3(B) and IS 9.2.1.3(C).

9.2.1.4 ADVERTISING

(a) No person or organisation may advertise as a certificated air operator under this part until the Authority of Curaçao has issued an AOC and associated operations specifications to that person or organisation.

(b) No certificated air operator may make, either orally or in writing, any statement about itself that is false or designed to mislead any person.

(c) Whenever the advertising of an air operator indicates that the air operator is certificated under this part, the advertisement shall clearly state the AOC number.

9.2.1.5 APPLICATION FOR AN AOC

(a) An application for an AOC shall be made in a form and manner prescribed by the Authority.

(b) Each applicant shall submit an application for the initial issue of an AOC at least 90 days before the date of intended operations.

(c) At the time of application, the applicant shall provide all the information and manuals required under this part, the SMS documentation required by Part 1 of these regulations, and any additional information the Authority requires the applicant to submit.

9.2.1.6 ISSUANCE OR DENIAL OF AN AOC

(a) The issue of an AOC by Curaçao will be dependent upon the operator demonstrating compliance with the requirements of this part and the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority.

(b) The Authority may issue an AOC if, after investigation, the Authority finds that the applicant:

(1) Is a citizen of Curaçao;

(2) Has its principal place of business and its registered office, if any, located in Curaçao;

(3) Meets the applicable regulations and standards for the holder of an AOC;

(4) Is properly and adequately equipped for safe operations in commercial air transport and maintenance of its aircraft; and

(5) Holds the economic authority issued by Curaçao under the provisions of the Civil Aviation Safety Act, as amended.

(c) The Authority may deny an application for an AOC if it finds that:

(1) The applicant is not properly or adequately equipped, is not able to safe operations in commercial air transport, or is not able to maintain its aircraft;

(2) The applicant previously held an AOC that was revoked; or

(3) A person who contributed to the circumstances causing the revocation process of an AOC obtains a substantial ownership in the applicant or is employed by the applicant in a position required by this part.

9.2.1.7 DURATION AND RENEWAL OF AN AOC

(a) An AOC issued by the Authority is effective for 36 months unless:

(1) The Authority amends, suspends, revokes, or otherwise terminates the certificate;

(2) The AOC holder surrenders the certificate to the Authority; or

(3) The AOC holder suspends operations for more than 90 days.

(b) An AOC holder shall make application for renewal of an AOC at least 30 days before the end of the existing period of validity.

9.2.1.8 CONTINUED VALIDITY OF AN AOC

(a) Unless an AOC has previously been surrendered, superseded, suspended, or revoked, or has expired by virtue of exceeding any expiration date that may be specific in the certificate, the continued validity of the AOC issued by Curaçao shall depend on:

(1) The operator maintaining the requirements of the original certification, as amended, under the supervision of Curaçao; and

(2) The operator remaining in compliance with the requirements of this part and the relevant safety management requirements of Part 1 of these regulations, and any additional information required by the Authority.

9.2.1.9 ACCESS FOR INSPECTION

(a) At any time or place, the Authority may conduct an inspection or test to determine whether an AOC holder certificated under this part is in continued compliance with the Civil Aviation Safety Act, as amended, the applicable regulations, the AOC, or the AOC holder's operations specifications.

(b) Each AOC holder shall:

(1) Grant the Authority access to and cooperation with any of the AOC holder's organisations, facilities, and aircraft;

(2) Ensure that the Authority is granted access to and cooperation with any organisation or facilities that the AOC holder has contracted for services associated with commercial air transport operations or maintenance; and

(3) Grant the Authority free and uninterrupted access to the flight deck of the aircraft during flight operations.

(c) Each AOC holder shall provide to the Authority a forward observer's seat on each of the AOC holder's aircraft, from which the flight crew's actions and conversations may be easily observed.

Note: The suitability of the seat location and the ability to monitor crew member actions, conversations, and radio communications will be determined by the Authority.

9.2.1.10 AUTHORITY TO INSPECT

(a) The Authority will conduct ongoing validation of the AOC holder's continued eligibility to hold its AOC and associated operations specifications.

(b) The Authority may conduct tests and inspections, at any time or place, to determine the AOC holder's continued compliance with the Civil Aviation Safety Act, as amended, and these regulations and the specific approvals, conditions, and limitations issued to the AOC holder.

(c) The AOC holder shall make available at its main base of operations:

(1) All portions of its current AOC;

(2) All portions of its OM and MCM; and

(3) A current listing that includes the location of, and the person(s) responsible for, each record, document, and report required to be kept by the AOC holder under the Civil Aviation Safety Act, as amended, and these regulations.

(d) Failure by any AOC holder to make available to the Authority, upon request, all portions of the AOC, OM, MCM, and any required record, document, or report is grounds for suspension of all or part of the AOC.

9.2.1.11 AMENDMENT OF AN AOC

(a) The Authority may amend any AOC if:

(1) The Authority determines that safety in commercial air transport and the public interest require the amendment; or

(2) The AOC holder applies for an amendment and the Authority determines that safety in commercial air transport and the public interest allow the amendment.

(b) If the Authority stipulates in writing that an emergency exists requiring immediate amendment of the AOC in the public interest with respect to safety in commercial air transport, such an amendment is effective without stay on the date the AOC holder receives notice.

(c) An AOC holder may appeal an amendment but shall operate in accordance with the amendment unless it is subsequently withdrawn.

(d) Amendments proposed by the Authority, other than emergency amendments, become effective 30 days after notice to the AOC holder, unless the AOC holder appeals the proposal in writing prior to the effective date. The filing of an appeal stays the effective date until the appeal process is completed.

(e) Amendments proposed by the AOC holder shall be made at least 30 days prior to the intended date of any operation under that amendment.

(f) No person or organisation may perform a commercial air transport operation for which an AOC amendment is required unless that person or organisation has received notice of the approval from the Authority.

9.3 AOC ADMINISTRATION

9.3.1 APPLICABILITY

(a) This subpart prescribes the requirements for the administration of an AOC holder, including the AOC holder's organisational structure, policy and procedures, facilities, management personnel, aircraft to be used, quality system, SMS, record keeping and documents systems, and operational or emergency demonstrations.

9.3.2 GENERAL

9.3.2.1 MAIN BASE OF OPERATIONS

(a) Each AOC holder that is not authorised to conduct maintenance under its AOC shall maintain a main base of operations.

(b) Each AOC holder that is authorised to conduct maintenance under its AOC shall maintain a main base of operations and a main base of maintenance.

(c) An AOC holder may establish a main base of operations and a main base of maintenance at the same location or at separate locations.

(d) Each AOC holder shall provide written notification of intent to the Authority at least 30 days before it proposes to establish or change the location of either base.

9.3.2.2 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(a) Each AOC holder shall have an executive manager, acceptable to the Authority, who has corporate authority for ensuring that all flight operations and maintenance activities can be financed and carried out to the highest degree of safety required by the Authority.

(b) Each AOC holder shall have qualified personnel, with proven competency in civil aviation, available and serving full-time in the following positions or their equivalent:

(1) Accountable executive.

(2) Operations manager.

(3) Chief pilot.

(4) Safety manager.

(5) Continuing Airworthiness manager.

(6) Chief inspector.

(7) Fleet manager(s), if applicable.

(8) Cabin crew manager, if applicable.

(9) Training manager.

(10) Ground services manager.

(11) Quality manager.

(12) Security manager.

Note 1: "Competency in civil aviation" means that a person shall have a technical qualification and management experience acceptable to the Authority for the position served.

Note 2: The chief inspector is responsible for quality control, as opposed to quality assurance, and is not to be confused with the quality manager under the quality system.

(c) The Authority may approve positions or numbers of positions other than those listed in paragraph

9.3.2.2(b) of this subsection if the AOC holder is able to show that it can perform the operations with the highest degree of safety under the direction of fewer or different categories of management personnel due to:

(1) The types of operation involved;

(2) The number and type of aircraft used; and

(3) The areas of operation.

(d) Additional management personnel requirements are contained in IS 9.3.2.2.

(e) The persons who serve in the positions required or approved under this subsection and any person in a position to exercise control over operations conducted under the AOC shall:

(1) Be qualified through training, experience, and expertise;

(2) Discharge their duties to meet applicable legal requirements and to maintain safe operations; and

(3) To the extent of their responsibilities, have a full understanding of the following materials with respect to the AOC holder's operation:

(i) Aviation safety standards and safe operating practices;

(ii) These regulations;

(iii) The AOC holder's operations specifications;

(iv) All appropriate maintenance and airworthiness requirements of this part; and

(v) The manuals required by this part.

(f) Each AOC holder shall:

(1) State in the general policy provisions of its OM the duties, responsibilities, and authority of the positions required by this subsection;

(2) List in its OM the names and business addresses of the persons assigned to those positions; and

(3) Notify the Authority within 10 days of any change in personnel or any vacancy in any position listed.

9.3.2.3 QUALITY SYSTEM

(a) Each AOC holder shall establish a quality system and designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure safe operational practices and airworthy aircraft. Compliance monitoring shall include a feedback system to the executive manager to ensure corrective action as necessary.

(b) Each AOC holder shall ensure that the quality system includes a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards, and procedures.

(c) The quality system and the quality manager shall be acceptable to the Authority.

(d) Each AOC holder shall describe its quality system in relevant documentation, as prescribed in IS 9.3.2.3.

(e) Notwithstanding paragraph 9.3.2.3(a) of this subsection, the Authority may accept the nomination of two quality managers, one for operations and one for maintenance, provided that the AOC holder has designated one Quality Management Unit to ensure that the quality system is applied uniformly throughout the entire operation.

(f) Where the AOC holder is also an AMO, the AOC holder's quality system may be combined with the requirements of an AMO and submitted for acceptance to the Authority and, for aircraft not registered in Curaçao, to the State of Registry.

9.3.2.4 SUBMISSION AND REVISION OF POLICY AND PROCEDURE MANUALS

(a) Each manual required by this part shall:

(1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(2) Be in a form that is easy to revise;

(3) Contain a system that allows personnel to determine the current revision status of each manual;

(4) Have the date of the last revision on each page concerned;

(5) Not be contrary to any applicable Curaçao regulation or the AOC holder's operations specifications; and

(6) Include references to appropriate regulations.

(b) No person may cause the use of any policy or procedure for flight operations or airworthiness functions prior to coordination with the Authority.

(c) The AOC holder shall submit each proposed policy or procedure to the Authority at least 30 days prior to the date of intended implementation.

(d) Copies of all amendments to the manuals shall be furnished promptly to all organisation or persons to whom the manuals has been issued.

9.3.2.5 RETENTION OF RECORDS

(a) Each AOC holder shall retain the following records for the period prescribed in IS 9.3.2.5:

(1) Flight crew records, including:

(i) Flight, duty, and rest time;

(ii) Licence and medical certificate;

(iii) Ground and flight training (all types);

(iv) Route and aerodrome/heliport qualification training;

(v) Dangerous goods training;

(vi) Security training; and

(vii) Proficiency and qualification checks (all types).

(2) Cabin crew records, including:

(i) Flight, duty, and rest time;

(ii) Licence, if applicable;

(iii) Ground and flight training (all types) and qualification checks;

(iv) Dangerous goods training;

(v) Security training; and

(vi) Competency checks.

(3) AOC holder personnel records, including:

(i) Training and qualification of other personnel for whom an approved training programme is required in these regulations;

(ii) License, if required, and medical certificate, if required; and

(iii) Proficiency or competency checks, if required.

(4) Flight preparation forms, including:

(i) Completed load manifests;

(ii) Mass and balance reports;

(iii) Dispatch releases;

(iv) Flight plans;

(v) Passenger manifests; and

(vi) Weather reports.

(5) An aircraft technical log, including a:

(i) Journey records section;

(ii) Continuing airworthiness records section; and

(iii) Flight recorder records:

(A) Cockpit voice recordings; and

(B) Flight data records.

(6) Aircraft continuing airworthiness records, including:

(i) The total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts;

(ii) The current status of compliance with all mandatory continuing airworthiness information;

(iii) Appropriate details of modifications and repairs to the aircraft and aeronautical products;

(iv) The total time in service (hours, calendar time, and cycles, as appropriate) since the last overhaul of the aircraft or aeronautical products subject to a mandatory overhaul life;

(v) The current status of the aeroplane's compliance with the maintenance programme; and

(vi) Detailed maintenance records to show all requirements for approval to return to service have been met.

(7) Other records, including:

(i) Operational flight plan;

(ii) Quality system records;

(iii) Dangerous goods transport documents;

(iv) Dangerous goods acceptance checklists; and

(v) Records on cosmic and solar radiation dosage, if the AOC holder operates aircraft that fly above 15,000 m.

(b) For the records identified in paragraphs 9.3.2.5(a)(1), (2), and (3) of this subsection, the AOC holder shall maintain:

(1) Current records that detail the qualifications and training of all its personnel and contract employees involved in the operational control, flight operations, ground operations, and maintenance of the air operator; and

(2) In sufficient detail to determine whether the persons meet the experience and qualification requirements for duties in commercial air transport operations, records for those employees performing crew member or FOO duties.

(c) Each AOC holder shall maintain records in a manner acceptable to the Authority.

9.3.2.6 COCKPIT VOICE RECORDER AND FLIGHT DATA RECORDER RECORDS

(a) Each AOC holder shall retain:

(1) The most recent FDR calibration, including the recording medium from which this calibration is derived; and

(2) The FDR correlation for one aircraft of any group of aircraft operated by the AOC holder:

(i) That are of the same type;

(ii) On which the model flight recorder and its installation are the same; and

(iii) On which there is no difference in type design with respect to the original installation of instruments associated with the recorder.

Note: The FDR calibration and the FDR correlation will be kept as part of the continuing airworthiness records for the aircraft and aeronautical products.

(b) In the event of an accident or incident requiring immediate notification to the Authority, the AOC holder shall remove and keep recorded information from the cockpit voice recorder and FDR for at least 60 days or, if requested by the Authority, for a longer period.

9.3.2.7 AIRCRAFT OPERATED BY THE AOC HOLDER

(a) The AOC holder shall list in its operations specifications the following:

(1) Issuing Authority contact details;

(2) Operator name and AOC number;

(3) Date of issue and signature of the Authority representative;

(4) Aircraft make, model, and series;

(5) Types and areas of operation; and

(6) The special limitations and specific approvals issued.

(b) Each AOC holder shall apply to the Authority for an amendment to its operations specifications in advance of any intended change of aircraft.

(c) Aircraft of another certificate holder operated under an interchange agreement shall be incorporated into the AOC holder's operations specifications as required by paragraph 9.3.2.7(a) of this subsection.

9.3.2.8 AIRCRAFT TECHNICAL LOG

(a) Each AOC holder shall have an aircraft technical log that is carried on the aircraft and contains a journey records section and an aircraft continuing airworthiness records section. The journey records section is further described in 9.4.1.5 of this part, and the aircraft continuing airworthiness records section is further described in 9.5.1.9 of this part.

Note: The aircraft technical log may be computerised. The journey records section and the continuing airworthiness records section may be combined.

9.3.2.9 COMPANY PROCEDURES INDOCTRINATION

(a) No person may serve in an AOC holder's employ, nor may any AOC holder use a person in its employ, unless that person has completed the approved company indoctrination curriculum appropriate to that person's duties and responsibilities.

(b) The indoctrination curriculum shall include training in knowledge and skills related to human performance, including coordination with other air operator personnel.

Note: Indoctrination, initial, recurrent, and other training required for crew members and FOOs/flight dispatchers are contained in Part 8 of these regulations.

9.3.2.10 SAFETY MANAGEMENT SYSTEM

(a) An AOC holder shall implement an SMS acceptable to the Authority as outlined in 1.6 of these regulations.

(b) An AOC holder operating an aeroplane with a maximum certificated take-off mass over 27,000 kg (44 092 lbs.) shall establish and maintain an for the use and guidance of operational personnel as part of its SMS.

(c) An AOC holder operating a helicopter with a maximum certificated take-off mass over 7,000 kg or having a passenger seating configuration of more than nine and fitted with an FDR shall establish and maintain an FDAP for the use and guidance of operational personnel as part of its SMS.

(d) The AOC holder's FDAP shall be non-punitive and shall contain adequate safeguards to protect the source(s) of data.

Note 1: An operator may contract the operation of an FDAP to another party while retaining overall responsibility for the maintenance of such a programme.

Note 2: Guidance on the establishment of an FDAP is included in ICAO Doc 10000, Manual on Flight Data Analysis Programmes (FDAP).

Note 3: Provisions on the protection of safety data, safety information, and related sources are contained in ICAO Annex 19, Appendix 3.

9.3.2.11 FLIGHT SAFETY DOCUMENTS SYSTEM

(a) An AOC holder shall establish a flight safety documents system for the use and guidance of operational personnel as part of its SMS.

(b) An AOC holder's flight safety documents system shall contain the minimum elements of the outline prescribed in IS 9.3.2.11.

9.3.3 AIRCRAFT

9.3.3.1 AUTHORISED AIRCRAFT

(a) No person shall operate an aircraft in commercial air transport unless that aircraft has an appropriate current certificate of airworthiness, is in an airworthy condition, and meets the applicable airworthiness requirements for these operations, including those related to identification and equipment.

(b) No person shall operate any specific type of aircraft in commercial air transport until that aircraft has completed satisfactory initial certification, which includes the issuance of operations specifications to the AOC holder listing that type of aircraft.

(c) No person shall operate additional or replacement aircraft of a type for which the AOC holder is currently authorised unless it can show that each aircraft has completed an evaluation process for inclusion in the AOC holder's fleet.

9.3.3.2 DRY LEASING OF FOREIGN-REGISTERED AIRCRAFT

(a) An AOC holder may dry lease a foreign-registered aircraft for commercial air transport as authorised by the Authority.

(b) No person may be authorised to operate a foreign-registered aircraft unless:

(1) There is in existence a current agreement between the Authority and the State of Registry that;

(i) while the aircraft is operated by the Curaçao AOC holder, the operations regulations of Curaçao are applicable; and

(2) There is in existence a current agreement between the Authority and the State of Registry acknowledging that:

(i) While the aircraft is operated by the AOC holder, the airworthiness regulations of the State of Registry are applicable; or

(ii) If the State of Registry agrees to transfer some or all of the responsibility for airworthiness to the Authority of Curaçao under Article 83 *bis* of the Chicago Convention, the airworthiness regulations of Curaçao shall apply to the extent agreed upon by the Authority and the State of Registry.

(3) The Authority of the State of Registry shall have free and uninterrupted access to the aircraft at any place and at any time.

(4) By derogation to sub-paragraphs (b)(1) and (b)(2), in relation to an N-registered aircraft, an FAA Foreign Operations Specifications listing the aircraft registration marks may be used.

(5) By derogation to sub-paragraphs (b)(1) and (b)(2), in relation to an N-registered aircraft, Federal Aviation Regulations, FAR Part 129.14 and Advisory Circular, AC 129-4A is applicable and constitutes an agreement.

(c) Additional requirements for dry leasing of foreign-registered aircraft are prescribed in IS 9.3.3.2.

9.3.3.3 AIRCRAFT INTERCHANGE

(a) No AOC holder may interchange aircraft with another AOC holder without the approval of the Authority.

(b) Requirements pertaining to aircraft interchange agreements approved by the Authority are prescribed in IS 9.3.3.3.

9.3.3.4 WET LEASING

(a) No person or organization may conduct wet lease operations on behalf of another AOC holder except in accordance with the applicable laws and regulations of the country in which the operation occurs and in accordance with the specific approvals, conditions, and limitations imposed by the Authority of Curaçao.

(b) No person or organization may allow another AOC holder to conduct wet lease operations on its behalf unless:

(1) That person or organisation holds an AOC or its equivalent from a Contracting State that authorises those operations; and

(2) The AOC holder advises the Authority of Curaçao of such operations and provides a copy of the AOC under which the operation is to be conducted.

(c) Additional requirements for wet leasing aircraft are prescribed in IS 9.3.3.4.

9.3.3.5 EMERGENCY EVACUATION DEMONSTRATION

(a) No person shall use an aircraft type and model in passenger-carrying commercial air transport operations unless that person has first conducted for the Authority an actual full-capacity emergency evacuation demonstration for the configuration in 90 seconds or less.

(b) The actual full-capacity emergency evacuation demonstration may not be required if the AOC holder provides a written petition for deviation with evidence that:

(1) A satisfactory full-capacity emergency evacuation for the aircraft to be operated was demonstrated during the aircraft type certification or during the certification of another air operator; and

(2) There is an engineering analysis that shows that an evacuation is still possible within the 90-second standard if the AOC holder's aircraft configuration differs with regard to the number of exits or the exit type or the number of cabin crew members or the location of the cabin crew members.

(c) If a full-capacity emergency evacuation demonstration is not required, no person may use an aircraft type and model in passenger-carrying commercial air transport operations unless that person has first demonstrated to the Authority that its available personnel, procedures, and equipment will provide sufficient open exits for evacuation in 15 seconds or less.

(d) No person shall use a land aeroplane in extended overwater operations unless that person has first conducted a ditching evacuation demonstration to the Authority showing that it has the ability and equipment to efficiently carry out its ditching procedures.

(e) (h) Additional requirements concerning emergency evacuation demonstrations are prescribed in IS 9.3.3.5.

9.3.3.6 DEMONSTRATION FLIGHTS

(a) No person may operate an aircraft type in commercial air transport unless that person first conducts satisfactory demonstration flights for the Authority in that aircraft type.

(b) No person may operate an aircraft in a designated special area, or using a specialised navigation system, unless that person conducts a satisfactory demonstration flight for the Authority.

(c) Demonstration flights required by paragraph 9.3.3.6(a) of this subsection shall be conducted in accordance with the regulations applicable to the type of operation and aircraft used.

(d) The number of hours and the type of demonstration flights shall be conducted in accordance with IS 9.3.3.6.

9.3.4 FACILITIES AND OPERATIONS SCHEDULES

9.3.4.1 FACILITIES

(a) Each AOC holder shall maintain operational and airworthiness support facilities at its main base of operations, appropriate for the type(s) and area(s) of operation.

(b) Each AOC holder shall arrange appropriate ground handling facilities at each aerodrome used to ensure the safe servicing and loading of its flights.

(c) No AOC holder may commence a flight unless it has ascertained by every reasonable means available that the ground and/or water facilities available and directly required on such flight, for the safe operation of the aircraft and the protection of the passengers, are adequate for the type of operation under which the flight is to be conducted and are adequately operated for this purpose.

Note: "Reasonable means" is intended to denote the use, at the point of departure, of information available to the AOC holder either through official information published by the aeronautical information services or readily available from other sources.

(d) Each AOC holder shall ensure that any inadequacy of facilities observed in the course of operations is reported to the authority responsible without delay.

(e) Each AOC holder shall, as part of its SMS, assess the level of RFFS protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aircraft intended to be used.

(f) Each AOC holder shall include in its OM information related to the level of RFFS protection that is deemed acceptable.

Note: ICAO Annex 6, Part I, Attachment I, contains guidance on assessing an acceptable level of RFFS protection at aerodromes.

9.3.4.2 OPERATIONS SCHEDULES

(a) In establishing flight operations schedules, each AOC holder conducting scheduled operations shall allow enough time for the proper servicing of aircraft at intermediate stops and shall consider the prevailing winds en route and the cruising speed of the type of aircraft used. This cruising speed may not be more than that resulting from the specified cruising output of the engines.

9.4 AOC FLIGHT OPERATIONS MANAGEMENT

9.4.1.1 APPLICABILITY

(a) This subpart provides those certification requirements that apply to the management of flight operations personnel and their functions.

9.4.1.2 OPERATIONS MANUAL

(a) Each AOC holder shall issue, to crew members and persons assigned operational control functions, an OM acceptable to the Authority.

(b) The OM shall contain the overall (general) company policies and procedures regarding the flight operations the AOC holder conducts.

(c) Each AOC holder shall prepare and keep current an OM that contains the AOC holder's policies and procedures for the use and guidance of its personnel.

(d) Each AOC holder shall issue the OM or pertinent portions of the OM, together with all amendments and revisions, to all personnel that are required to use it.

(e) No AOC holder may provide for use by its personnel in commercial air transport any OM or portion of an OM that has not been reviewed and found acceptable or approved for the AOC holder by the Authority.

(f) Each AOC holder shall ensure that the contents of the OM include at least those subjects designated by the Authority that are applicable to the AOC holder's operations.

(g) The OM shall contain the specific areas listed below and may be issued in separate parts:

(1) General, as prescribed in IS 9.4.1.2(G);

(2) AOM, as prescribed in 9.4.1.4 of this part and in IS 9.4.1.4;

(3) Route Guide – Areas, Routes, Aerodromes, and Heliports, as prescribed in 9.4.1.20 of this part and in IS 9.4.1.20; and

(4) Training Manual, as prescribed in 9.4.1.3 of this part and in IS 9.4.1.3.

9.4.1.3 TRAINING MANUAL

(a) Each AOC holder shall ensure that all operations personnel are properly instructed in their duties and responsibilities and the relationship of such duties to the operation as a whole.

(b) Each AOC holder shall have a Training Manual approved by the Authority containing the general training, checking, and record keeping policies.

(c) Each AOC holder shall have approval of the Authority prior to using a training curriculum for the purpose of qualifying a crew member, or a person performing operational control functions, for duties in commercial air transport.

(d) Each AOC holder shall submit to the Authority any revision to an approved training programme and shall receive written approval from the Authority before that revision may be used.

(e) The Training Manual shall conform to the outline prescribed in IS 9.4.1.3.

9.4.1.4 AIRCRAFT OPERATING MANUAL

(a) Each AOC holder shall, for each type and variant of aircraft operated, submit for approval by the Authority a proposed AOM containing the normal, abnormal, and emergency procedures relating to the operation of the aircraft.

(b) Each AOM shall be based upon the aircraft manufacturer's data for the specific aircraft type and variant operated by the AOC holder and shall include specific operating parameters, details of the aircraft systems, and checklists to be used applicable to the operations of the AOC holder that are approved by the Authority. The design of the manual shall observe human factors principles.

(c) The AOM shall be issued to the flight crew members and persons assigned operational control functions to each aircraft operated by the AOC holder.

(d) The AOM shall conform to the outline prescribed in IS 9.4.1.4.

9.4.1.5 AIRCRAFT TECHNICAL LOG ENTRIES – JOURNEY RECORDS SECTION

(a) Each AOC holder shall use an aircraft technical log containing a journey records section that includes the following information for each flight:

Note: See 9.5.1.9 of this part for the continuing airworthiness records section of the aircraft technical log.

(1) Aircraft nationality and registration;

(2) Date;

(3) Names of crew members;

(4) Duty assignments of crew members;

(5) Place of departure;

(6) Place of arrival;

(7) Time of departure;

(8) Time of arrival;

(9) Hours of flight;

(10) Nature of flight (private, aerial work, scheduled, non-scheduled);

(11) Incidents, observations, if any; and

(12) Signature of person in charge.

(b) Entries in the journey records section shall be made currently and in ink or indelible pencil.

(c) Completed journey records sections shall be retained to provide a continuous record of the last 2 years of operations.

9.4.1.6 DESIGNATION OF PILOT-IN-COMMAND FOR COMMERCIAL AIR TRANSPORT

(a) The AOC holder shall, for each commercial air transport operation, designate in writing one pilot as the PIC.

9.4.1.7 REQUIRED CABIN CREW MEMBERS

(a) The AOC holder shall schedule the minimum number of required cabin crew members on board passenger-carrying flights.

(b) The PIC shall ensure that the minimum number of required cabin crew members is on board the passenger-carrying flight.

(c) The number of cabin crew members shall not be less than the minimum prescribed by the Authority in the AOC holder's operations specifications or the following, whichever is greater:

(1) For a seating capacity of 20 to 50 passengers: 1 cabin crew member; and

(2) One additional cabin crew member for each unit, or part of a unit, of 50-passenger-seat capacity.

(d) When passengers are on board a parked aircraft, the minimum number of cabin crew members shall be one-half that required for the flight operation, but never less than one cabin crew member (or another person qualified in the emergency evacuation procedures for the aircraft).

Note: Where one-half would result in a fractional number, it is permissible to round down to the next whole number.

9.4.1.8 CARRIAGE OF SPECIAL SITUATION PASSENGERS

(a) No AOC holder may allow the transport of special situation passengers except:

(1) As provided in the AOC holder's OM procedures; and

(2) With the knowledge and concurrence of the PIC.

Note: Each State should consult its national laws or other regulations when developing regulations for the carriage of persons with physical or mental disabilities, or inadmissible passengers, deportees, or persons in custody.

9.4.1.9 CREW MEMBER CHECKING AND STANDARDISATION PROGRAMME

(a) Each AOC holder shall have a programme, approved by the Authority, for the checking and standardisation of crew members.

Note: A standardised process is defined to address the operator-unique fleet differences and compliance methods.

(b) An AOC holder shall check pilots' proficiency on those manoeuvres and procedures that are prescribed by the Authority for pilot proficiency checks, which shall include emergency procedures and, where applicable, instrument flight rules.

Note: See Part 8 of these regulations for specific checking requirements.

9.4.1.10 RESERVED

9.4.1.11 FLIGHT DECK CHECK PROCEDURE

(a) Each AOC holder shall issue to its flight crews, and shall make available on each aircraft, the checklist procedures approved by the Authority appropriate to the type and variant of aircraft.

(b) Each AOC holder shall ensure that approved procedures include each item necessary for flight crew members to check for safety before starting engines, taking off, or landing, and for engine and system abnormalities and emergencies.

(c) Each AOC holder shall ensure that the checklist procedures are designed so that flight crew members will not need to rely upon their memory for items to be checked.

(d) Each AOC holder shall make the approved procedures readily usable in the flight deck of each aircraft, and the flight crew shall be required to follow the approved procedures when operating the aircraft.

Note: Checklists are part of the AOM, which is a part of the AOC holder's OM and is approved by the Authority.

9.4.1.12 MINIMUM EQUIPMENT LIST AND CONFIGURATION DEVIATION LIST

(a) Each AOC holder shall provide, for the use of flight crew members, maintenance personnel, and persons assigned operational control functions during the performance of their duties, an MEL approved by the Authority.

(b) The MEL shall be specific to the aircraft type and variant and shall contain the circumstances, limitations, and procedures for the release or continuance of flight of the aircraft with inoperative components, equipment, or instruments.

(c) Each AOC holder shall provide, for the use of flight crew members, maintenance personnel, and persons assigned operational control functions during the performance of their duties, a CDL specific to the aircraft type, if one is provided and approved by the State of Design. An AOC holder's OM shall contain those procedures acceptable to the Authority for operations in accordance with the CDL requirements.

Note: The MEL constitutes an integral part of the OM.

9.4.1.13 PERFORMANCE PLANNING MANUAL

(a) Each AOC holder shall provide, for the use of flight crew members and persons assigned operational control functions during the performance of their duties, a Performance Planning Manual acceptable to the Authority.

(b) The Performance Planning Manual shall be specific to the aircraft type and variant and shall contain adequate performance information to accurately calculate the performance in all normal phases of flight operation.

Note: ICAO Doc 9976, Flight Planning and Fuel Management (FPFM) Manual*, and ICAO Doc 10064,* Aeroplane Performance Manual*, provide information on preparing the Performance Planning Manual.*

9.4.1.14 PERFORMANCE DATA CONTROL SYSTEM

(a) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining, and distributing to appropriate personnel current performance data for each aircraft, route, and aerodrome that it uses.

(b) The system approved by the Authority shall provide current obstacle data for departure and arrival performance calculations.

9.4.1.15 AIRCRAFT LOADING AND HANDLING MANUAL

(a) Each AOC holder shall provide, for the use of flight crew members, ground handling personnel, and persons assigned operational control functions during the performance of their duties, an Aircraft Loading and Handling Manual acceptable to the Authority.

(b) This Aircraft Loading and Handling Manual shall be specific to the aircraft type and variant and shall contain the procedures and limitations for servicing and loading the aircraft.

Note: Depending on the size and scope of the AOC holder's operations, the Aircraft Loading and Handling Manual may be a stand-alone document or may be contained in the OM.

9.4.1.16 MASS AND BALANCE DATA CONTROL SYSTEM

(a) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining, and distributing to appropriate personnel current information regarding the mass and balance of each aircraft operated.

9.4.1.17 CABIN CREW MEMBER MANUAL

(a) The AOC holder shall issue to cabin crew members, and provide to passenger agents during the performance of their duties, a Cabin Crew Member Manual acceptable to the Authority.

(b) The Cabin Crew Member Manual shall contain those operational policies and procedures applicable to cabin crew members and the carriage of passengers.

(c) The AOC holder shall issue to the cabin crew members a manual, specific to the aircraft type and variant, which contains the details of their normal, abnormal, and emergency procedures and the location and operation of emergency equipment.

Note: This manual may be combined into one manual for use by cabin crew members.

9.4.1.18 PASSENGER BRIEFING CARDS

(a) Each AOC holder shall carry on each passenger-carrying aircraft, in convenient locations for the use of each passenger, printed cards supplementing the oral briefing and containing:

(1) Diagrams and methods of operating the emergency exits;

(2) Other instructions necessary for the use of the emergency equipment; and

(3) Information regarding the restrictions and requirements associated with sitting in an exit-seat row.

(b) Each AOC holder shall ensure that each passenger briefing card contains information that is pertinent only to the type and variant of aircraft used for that flight.

(c) Specific information to be included on passenger briefing cards regarding exit seating is prescribed in IS 9.4.1.18.

Note: See FAA AC 121-24D, Passenger Information Safety Briefing and Briefing Cards*, for detailed information on passenger briefings.*

9.4.1.19 AERONAUTICAL DATA CONTROL SYSTEM

(a) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining, and distributing to appropriate personnel current aeronautical data for each route and aerodrome that it uses.

(b) Specific aerodrome information to be contained in the aeronautical data control system is prescribed in IS 9.4.1.19.

9.4.1.20 ROUTE GUIDE – AREAS, ROUTES, AERODROMES, AND HELIPORTS

(a) Each AOC holder shall provide, for the use of flight crew members and persons assigned operational control functions during the performance of their duties, information on areas, routes, aerodromes, and heliports as well as aeronautical charts approved by the Authority.

(b) The AOC holder shall keep the route guide and aeronautical charts current and appropriate for the proposed types and areas of operation to be conducted by the AOC holder. This information may be issued as part of, or separately from, the OM.

(c) This information shall contain at least the information prescribed in IS 9.4.1.20.

9.4.1.21 WEATHER REPORTING SOURCES

(a) Each AOC holder shall use sources approved by the Authority for the weather reports and forecasts used for decisions regarding flight preparation, routing, and terminal operations.

(b) For passenger-carrying operations, the AOC holder shall have an approved system for obtaining forecasts and reports of adverse weather phenomena that may affect the safety of flight on each route to be flown and at each aerodrome to be used.

(c) A list of weather reporting sources approved by the Authority for flight planning or for controlling flight movement are prescribed in IS 9.4.1.21.

9.4.1.22 DE-ICING AND ANTI-ICING PROGRAMME

(a) Each AOC holder planning to operate an aircraft in conditions where frost, ice, or snow may reasonably be expected to adhere to the aircraft shall:

(1) Use only aircraft adequately equipped for such conditions;

(2) Ensure the flight crew is adequately trained for such conditions; and

(3) Have an approved ground de-icing and anti-icing programme.

(b) Detailed requirements pertaining to the AOC holder's de-icing and anti-icing programme are prescribed in IS 9.4.1.22.

Note: *See the current edition of FAA AC 120-60, Ground Deicing and Anti-Icing Program, for a discussion of the programme and training of employees. See also ICAO Doc 9640, Manual of Aircraft Ground De-icing/Anti-icing Operations.*

9.4.1.23 FLIGHT DISPATCH AND MONITORING SYSTEM

(a) Each AOC holder shall have an adequate system approved by the Authority for proper dispatch and monitoring of flights, considering the operations to be conducted.

(1) The AOC holder's dispatch and monitoring system shall have enough dispatch centres adequate for the operations to be conducted, located at points necessary to ensure adequate flight preparation, dispatch, and in-flight contact with flight operations.

(2) Each AOC holder shall provide enough qualified FOOs at each dispatch centre to ensure proper operational control of each flight.

(b) An AOC holder conducting charter operations may arrange to have flight following facilities provided by persons other than its employees, but, in such a case, the AOC holder shall continue to be primarily responsible for operational control of each flight.

(1) Each AOC holder conducting charter operations using a flight following system shall show that the system has adequate facilities and personnel to provide to the following persons the information necessary for the initiation and safe conduct of each flight:

(i) The flight crew of each aircraft; and

(ii) The persons designated by the AOC holder to perform the function of operational control of the aircraft.

(2) Each AOC holder conducting charter operations shall show that the personnel required to perform the function of operational control are able to perform their duties.

9.4.1.24 FATIGUE RISK MANAGEMENT SYSTEM

(a) For the purpose of managing fatigue-related safety risks, an AOC holder shall establish either:

(1) Flight time, flight duty period, duty period, and rest period limitations that are within the prescriptive fatigue management requirements of 8.12 of these regulations;

(2) An FRMS in compliance with paragraph 8.11.1.2(e) of these regulations; or

(3) An FRMS in compliance with paragraph 8.11.1.2(e) of these regulations for part of its operations and the requirements of 8.12 of these regulations for the remainder of its operations.

(b) Where the AOC holder adopts prescriptive fatigue management requirements for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to such requirements on the basis of a risk assessment provided by the operator. Approved variations shall provide a level of safety equivalent to, or better than, that achieved through the prescriptive fatigue management requirements.

(c) The Authority will approve an operator's FRMS before it may take the place of any or all of the prescriptive fatigue management requirements. An approved FRMS shall provide a level of safety equivalent to, or better than, the prescriptive fatigue management requirements.

(d) Operators using an FRMS shall adhere to the following provisions of the FRMS approval process, which allows the Authority to ensure that the approved FRMS meets the requirements of paragraph 8.11.1.2(d)(1) of these regulations:

(1) Establish maximum values for flight times and/or flight duty period(s) and duty period(s) and minimum values for rest periods; these values shall be based upon scientific principles and knowledge, subject to safety assurance processes;

(2) Adhere to Authority mandates to decrease maximum values and increase minimum values in the event that the operator's data indicates these values are too high or too low, respectively; and

(3) Provide justification to the Authority for any increase in maximum values or decrease in minimum values based on accumulated FRMS experience and fatigue-related data before such changes will be approved by the Authority.

(e) Operators implementing an FRMS to manage fatigue-related safety risks shall, at a minimum:

(1) Incorporate scientific principles and knowledge within the FRMS;

(2) Identify fatigue-related safety hazards and the resulting risks on an ongoing basis;

(3) Ensure that remedial actions, necessary to effectively mitigate the risks associated with the hazards, are implemented promptly;

(4) Provide for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions; and

(5) Provide for continuous improvement of the overall performance of the FRMS.

(f) Detailed requirements pertaining to FRMS are prescribed in IS 9.4.1.24.

9.4.1.25 COMMUNICATIONS FACILITIES

(a) Each AOC holder's flights shall be able to have two-way radio communications with all ATC facilities along the routes and alternate routes to be used.

(b) For passenger-carrying operations, each AOC holder shall be able to have rapid and reliable radio communications with all flights over the AOC holder's entire route structure under normal operating conditions. This radio communication system shall be independent of the ATC system.

(c) Each AOC holder engaged in international air navigation shall at all times have available for immediate communication to rescue coordination centres information on the emergency and equipment carried on board any of its aircraft, including, as applicable:

(1) The number, colour, and type of life rafts and pyrotechnics;

(2) Details of emergency water and medical supplies; and

(3) The type and frequencies of the emergency portable radio equipment.

9.4.1.26 ROUTES AND AREAS OF OPERATION

(a) An AOC holder shall conduct operations only along such routes and within such areas for which:

(1) Ground facilities and services, including meteorological services, are provided that are adequate for the planned operation;

(2) The performance of the aircraft intended to be used is adequate to comply with minimum flight altitude requirements;

(3) The equipment of the aircraft intended to be used meets the minimum requirements for the planned operation;

(4) Appropriate and current maps and charts are available;

(5) If two-engine aircraft are used, adequate aerodromes are available within the time and distance limitations; and

(6) If single-engine aircraft are used, surfaces are available that permit a safe forced landing to be executed.

(b) No person may conduct commercial air transport operations on any route or in any area of operation unless those operations are conducted in accordance with any restrictions imposed by the Authority.

9.4.1.27 NAVIGATIONAL ACCURACY

(a) Each AOC holder shall ensure, for each proposed route or area, that the navigation systems and facilities it uses are capable of navigating the aircraft:

(1) Within the degree of accuracy required for ATC; and

(2) To the aerodromes in the operational flight plan within the degree of accuracy necessary for the operation involved.

(b) In situations without adequate navigation systems reference, the Authority may authorise day VFR operations that can be conducted safely by pilotage because of the characteristics of the terrain.

(c) Except for those navigation aids required for routes to alternate aerodromes, the Authority will list in the AOC holder's operations specifications non-visual ground aids required for approval of routes outside of controlled airspace.

(d) Non-visual ground aids are not required for night VFR operations on routes that the AOC holder shows have reliably lighted landmarks adequate for safe operation.

(e) Operations on route segments where the use of celestial or other specialised means of navigation is

required shall be approved by the Authority.

Note 1: The operations specifications layout prescribed in paragraph 9.2.1.3(c) of this part and IS 9.2.1.3(C) shall be followed. The bottom row of the operations specifications provides for "other" authorisations or data. Other authorisations or data may require the preparation of multiple pages, based on the complexity of the AOC holder's operation. It would be appropriate for the Authority to list in the AOC holder's operations specifications as "other" authorisations, the non-visual ground aids required for approval of routes outside of controlled airspace.

Note 2: See ICAO Doc 9613, Performance-Based Navigation (PBN) Manual*, for information on the approval process for operations in RNP airspace and a list of references to other documents produced by States and international bodies.*

9.4.1.28 AIRCRAFT TRACKING

(a) The AOC holder shall establish an aircraft tracking capability to track aeroplanes throughout its areas of operation.

Note: Guidance on aircraft tracking capabilities is contained in ICAO Cir 347, Aircraft Tracking Implementation Guidelines.

(b) The AOC holder shall track the position of an aeroplane through automated reporting at least every 15 minutes for the portion(s) of the in-flight operation(s) under the following conditions:

(1) The aeroplane has a maximum certificated take-off mass of over 27 000 kg and a seating capacity greater than 19; and

(2) Where an ATS unit obtains aeroplane position information at greater than 15-minute intervals.

Note: See ICAO Annex 11, Chapter 2, for coordination between the AOC holder and ATS provisions regarding position report messages.

(c) The AOC holder shall track the position of an aeroplane through automated reporting at least every 15 minutes for the portion(s) of the in-flight operation(s) planned in an oceanic area under the following conditions:

Note: For the purpose of aircraft tracking, "oceanic area" is the airspace that overlies waters outside the territory of a State.

(1) The aeroplane has a maximum certificated take-off mass of over 45 500 kg and a seating capacity greater than 19; and

(2) Where an ATS unit obtains aeroplane position information at greater than 15-minute intervals.

Note: See ICAO Annex 11, Chapter 2, for coordination between the AOC holder and ATS provisions regarding position report messages.

(d) Notwithstanding the provisions in paragraphs 9.4.1.28(b) and (c) of this subsection, the Authority may, based on the results of an approved risk assessment process implemented by the AOC holder, allow for variations to automated reporting intervals. The process shall demonstrate how risks to the operation resulting from such variations may be managed and shall include at least the following:

(1) The capability of the AOC holder's operational control systems and processes, including those for contacting ATS units;

(2) The overall capability of the aeroplane and its systems;

(3) The available means to determine the position of, and to communicate with, the aeroplane;

(4) The frequency and duration of gaps in automated reporting;

(5) Human factors consequences resulting from changes to flight crew procedures; and

(6) Specific mitigation measures and contingency procedures.

Note: Guidance on development, implementation, and approval of the risk assessment process that allows for variations to the need for automatic reporting and the required interval, including variation examples, is contained in ICAO Cir 347, Aircraft Tracking Implementation Guidelines.

(e) The AOC holder shall establish procedures, approved by the Authority, for the retention of aircraft tracking data to assist search and rescue in determining the last known position of the aircraft.

Note: See 9.2.1.2 of this part for AOC holder responsibilities when using third parties for the conduct of aircraft tracking under this subsection.

9.5 AOC CONTINUING AIRWORTHINESS REQUIREMENTS

Note 1: For the purpose of this subpart, "aeroplane" includes: engines, propellers, components, accessories, instruments, equipment and apparatus including emergency equipment.

Note 2: Reference is made throughout this chapter to the requirements of the State of Registry. When the State of the Operator is not the same as the State of Registry, it may be necessary to consider any additional requirements of the State of the Operator.

Note 3: Guidance on continuing airworthiness requirements is contained in the Airworthiness Manual *(Doc 9760).*

9.5.1.1 APPLICABILITY

(a) This subpart provides those certification and continuing airworthiness requirements that apply to an AOC holder utilising an AMO.

9.5.1.2 CONTINUING AIRWORTHINESS RESPONSIBILITY

(a) Each AOC holder shall ensure the airworthiness of the aircraft and the serviceability of both operational and emergency equipment by ensuring the:

(1) Accomplishment of pre-flight inspections;

(2) Correction of any defect and/or damage affecting safe operation of an aircraft to an approved standard, taking into account the MEL and CDL if available for the aircraft type;

(3) Accomplishment of all maintenance in accordance with the operator's approved aircraft maintenance programme;

(4) Analysis of the effectiveness of the operator's approved aircraft maintenance programme;

(5) Accomplishment of any operational directive, AD, and any other continuing airworthiness requirement made mandatory by the Authority; and

(6) Accomplishment of modifications in accordance with an approved standard and, for non-mandatory modifications, the establishment of an embodiment policy.

(b) Each AOC holder shall ensure that the certificate of airworthiness for each aircraft operated remains valid with respect to:

(1) The requirements in paragraph 9.5.1.2(a) of this subsection;

(2) The expiration date of the certificate; and

(3) Any other maintenance condition specified in the certificate.

(c) Each AOC holder shall ensure that the requirements specified in paragraph 9.5.1.2(a) of this subsection are performed in accordance with procedures approved by or acceptable to the Authority.

(d) Each AOC holder shall ensure that the maintenance, overhaul, modification, repair, and inspection of its aircraft and aeronautical products are performed in accordance with its MCM and/or current instructions for continuing airworthiness and applicable aviation regulations.

(e) Each AOC holder may make an arrangement with another person or entity for the performance of any maintenance, overhaul, modification, repair, or inspection, but shall remain responsible for all work performed under such arrangement.

(f) Each AOC holder shall have its aircraft maintained and approved for return to service as provided for in 9.5.1.10 of this part.

9.5.1.3 APPROVAL AND ACCEPTANCE OF AOC MAINTENANCE SYSTEMS AND PROGRAMMES

(a) An AOC holder shall not operate an aircraft, except for pre-flight inspections, unless it is maintained and approved for return to service as follows:

(1) The operator shall not operate an aeroplane unless it is maintained and returned to service by;

(i) an organisation approved in accordance with Part 6 of these regulations that is either approved by the State of Registry of the aeroplane or is approved by another Contracting State and shall be accepted by the State of Registry; or

(ii) by a person or organisation in accordance with procedures that are authorized by the State of Registry.

(2) When the State of Registry accepts a system that is authorized in accordance with 9.5.1.3(a)(1)(ii) of this part, the person signing the approval for return to service shall be licensed in accordance with Part 2 of these regulations to certify that maintenance work performed has been completed satisfactorily and in accordance with approved data and procedures acceptable to the State of Registry.

(3) When the maintenance is not carried out by an approved maintenance organization, the return to service shall include the following:

(i) basic details of the maintenance carried out including detailed reference of the data used;

(ii) the date such maintenance was completed; and

(iii) the identity of the person or persons signing the return to service.

Note: Under 14 CFR, the current practice is that an AOC holder is authorised to perform its own maintenance under the AOC without being designated separately as an AMO.

9.5.1.4 MAINTENANCE CONTROL MANUAL

(a) Each Curaçao AOC holder shall provide to the Authority, and to the State of Registry of the aircraft if different from the Authority, the AOC holder's MCM and subsequent amendments using human factors principles, for the use and guidance of maintenance and operational personnel concerned and containing details of the organisation's structure, including:

(1) The executive manager and designated person(s) responsible for the maintenance programme, as required by 9.3.2.2 of this part;

(2) Procedures to be followed, which may be included in the AMO Procedures Manual, to satisfy the maintenance responsibility of 9.5.1.2 of this part, except where the AOC holder is certificated as an AMO and has the quality functions of 9.3.2.3 of this part;

(3) Procedures for the reporting of failures, malfunctions, and defects, in accordance with 5.4.1.5 of these regulations, to the Authority, the State of Registry, and the State of Design within 72 hours of discovery; in addition, items that warrant immediate notification to the Authority by telephone, facsimile, or email with a written follow-on report as soon as possible, but no later than within 72 hours of discovery, are:

(i) Primary structural failure;

(ii) Control system failure;

(iii) Fire in the aircraft;

(iv) Engine structure failure; or

(v) Any other condition considered an imminent hazard to safety.

(b) The AOC holder's MCM shall contain the following information, which may be issued in separate parts:

(1) A description of the administrative agreements between the AOC holder and the AMO, or a description of the maintenance procedures and the procedures for completing and signing an approval for return to service when maintenance is based on a system other than that of an AMO;

(2) A description of the procedures for ensuring that each aircraft they operate is in an airworthy condition;

(3) A description of the procedures for ensuring that the emergency equipment for each flight is serviceable;

(4) The names and duties of the person or persons required to ensure that all maintenance is carried out in accordance with the MCM;

(5) A reference to the maintenance programme required by 9.5.1.12 of this part;

(6) A description of the methods for completion and retention of the operator's continuing airworthiness records required by 9.5.1.8 of this part;

(7) A description of the procedures for monitoring, assessing, and reporting maintenance and operational experience for all aircraft over 5 700 kg maximum certificated take-off mass;

(8) A description of the procedures for complying with the service information requirements as set forth in 5.4.1.4 of these regulations.

(9) A description of the procedures for obtaining and assessing continuing airworthiness information from the organisation responsible for the type design and implementing any resulting actions considered necessary by the State of Registry for all aircraft over 5 700 kg maximum certificated take-off mass;

(10) A description of the procedures for implementing mandatory continuing airworthiness as required in paragraph 9.5.1.2(a)(5) of this part;

(11) A description of the procedures for establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance programme in order to correct any deficiency in that programme;

(12) A description of the aircraft types and models to which the AOC holder's MCM applies;

(13) A description of the procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified; and

(14) A description of the procedures for advising the State of Registry of significant in-service occurrences.

(c) No AOC holder may provide for use by its personnel in commercial air transport any MCM or portion of this manual that has not been reviewed and approved for the AOC holder by the Authority.

(d) An outline of specific subjects to be contained, as appropriate, in the AOC holder's MCM is prescribed in IS 9.5.1.4.

Note 1: In the FAA system, the MCM is usually referred to as the General Maintenance Manual; in the JARs, it is called the Maintenance Management Exposition.

Note 2: Guidance material on the application of human factors principles can be found in ICAO Doc 9683, Human Factors Training Manual.

9.5.1.5 MAINTENANCE MANAGEMENT

(a) The AOC holder certificated as an AMO may carry out the requirements specified in paragraphs 9.5.1.2(a)(2), (3), (5), and (6) of this part.

(b) If the AOC holder is not certificated as an AMO, the AOC holder shall meet its responsibilities under paragraphs 9.5.1.2(a)(2), (3), (5), and (6) of this part through an arrangement with an AMO, with a written maintenance contract between the AOC holder and the contracting AMO detailing the required maintenance functions and defining the support of the quality functions approved or accepted by the Authority.

(c) Each AOC holder shall employ a person or group of persons, acceptable to the Authority, to ensure that all maintenance is carried out to an approved standard, such that the continuing airworthiness requirements of 9.5.1.2 of this part and the requirements of the AOC holder's MCM are satisfied, and to ensure the functioning of the quality system.

(d) Each AOC holder shall provide suitable office accommodation at appropriate locations for the personnel specified in paragraph 9.5.1.5(c) of this subsection.

(e) Each AOC holder shall establish for the maintenance of aircraft an SMS that is in accordance with 9.3.2.10 of this part and is acceptable to the Authority.

9.5.1.6 RESERVED

9.5.1.7 RESERVED

9.5.1.8 CONTINUING AIRWORTHINESS RECORDS

(a) Each AOC holder shall ensure that a system has been established to keep, in a form acceptable to the Authority, the following records:

(1) The total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts;

(2) The current status of compliance with all mandatory continuing airworthiness information;

(3) Appropriate details of modifications and repairs to the aircraft or aeronautical products;

(4) The time in service (hours, calendar time, and cycles, as appropriate) since last overhaul of the aircraft or aeronautical products subject to mandatory overhaul life;

(5) The current aircraft status of compliance with the maintenance programme; and

(6) The detailed maintenance records to show that all requirements for the signing of an approval for return to service has been met.

(b) Each AOC holder shall ensure that the records in paragraphs 9.5.1.8(a)(1) through (5) of this subsection shall be kept for a minimum of 90 days after the unit to which they refer has been permanently withdrawn from service and that the records in paragraph 9.5.1.8(a)(6) of this subsection shall be kept for a minimum of 1 year after the signing the approval for return to service.

(c) Each AOC holder shall ensure that in the event of a temporary change of operator, the records specified in paragraph 9.5.1.8(a) of this subsection shall be made available to the new operator.

(d) Each AOC holder shall ensure that when an aircraft is permanently transferred from one operator to another operator, the records specified in paragraph 9.5.1.8(a) of this subsection are also transferred.

Note: In the context of 9.5.1.8(c), a judgement on what should be considered as a temporary change of operator will need to be made by the State of Registry in the light of the need to exercise control over the records, which will depend on access to them and the opportunity to update them.

(e) Records kept and transferred in accordance with 8.4 shall be maintained in a form and format that ensures readability, security and integrity of the records at all times.

Note 1: The form and format of the records may include, for example, paper records, film records, electronic records or any combination thereof.
Note 2: Guidance regarding electronic aircraft continuing airworthiness records is included in the Airworthiness Manual (Doc 9760).

9.5.1.9 AIRCRAFT TECHNICAL LOG ENTRIES – CONTINUING AIRWORTHINESS RECORDS SECTION

(a) Each AOC holder shall use an aircraft technical log that includes an aircraft continuing airworthiness records section containing the following information for each aircraft:

Note: See 9.4.1.5 of this part for the journey records section of the aircraft technical log.

(1) Information about each previous flight, necessary to ensure continuing flight safety;

(2) The current aircraft maintenance release and/or an airworthiness release;

(3) The current inspection status of the aircraft, to include inspections due to be performed on an established schedule and inspections due to be performed that are not on an established schedule, except that the Authority may agree to the maintenance statement being kept elsewhere;

(4) The current maintenance status of the aircraft, to include maintenance due to be performed on an established schedule and maintenance due to be performed that is not on an established schedule, except that the Authority may agree to the maintenance statement being kept elsewhere; and

(5) All deferred defects that affect the operation of the aircraft.

Note: Defects that are not airworthiness items may be deferred to a later date for rectification. When this is done, there shall be a method for recording such a deferral, and normally the aircraft technical log has a section solely for this purpose. Some operators have a system of classifying deferred defects to allow different lengths of time, either in hours flown, number of sectors, or, on return to a maintenance base, until a defect shall be rectified, before further flight.

(b) The aircraft technical log and any subsequent amendment shall be approved by the Authority.

(c) Each person who takes action in the case of a reported or observed failure or malfunction of an aircraft or aeronautical product that is critical to the safety of flight shall make, or shall have made, a record of that action in the continuing airworthiness records section of the aircraft technical log.

(d) Each AOC holder shall have a procedure for keeping copies of required records to be carried on board, in a place readily accessible to each flight crew member, and shall put that procedure in the AOC holder's OM.

9.5.1.10 RETURN TO SERVICE

(a) No AOC holder shall operate an aircraft unless the aircraft has both an approval for return to service, if maintenance has been performed prior to the flight, and a valid logbook entry in the continuing airworthiness records section of the aircraft technical log, as follows:

(1) An AOC holder shall not operate an aircraft unless the aircraft is maintained and approved for return to service as follows:

(i) The operator shall not operate an aeroplane unless it is maintained and returned to service by an organisation approved in accordance with Part 6 of these regulations, of which shall be acceptable to the State of Registry: or,

(ii) By a person or organization in accordance with procedures that are authorized by the State of Registry, of which shall be accepted by the State of Registry.

(iii) When the State of Registry accepts a system in accordance with 9.5.1.10(a)(1)(ii)

of this subsection, the person signing the approval for return to service shall be licensed in accordance with Part 2 of these regulations to certify that maintenance work performed has been completed satisfactorily and in accordance with approved data and procedures acceptable to the State of Registry.

(2) An AOC holder using an AMO shall not operate an aircraft after return to service under paragraph 9.5.1.10(a)(1)(i) of this subsection unless an approval for return to service has been prepared in accordance with the AOC holder's MCM procedures and a logbook entry has been made in the continuing airworthiness records section of the aircraft technical log.

(3) An AOC holder using a system with procedures authorized by the State of Registry shall not operate an aircraft after return to service under paragraph 9.5.1.10(a)(1)(ii) of this subsection unless a logbook entry in the continuing airworthiness records section of the aircraft technical log is prepared or caused to be prepared by an appropriately licensed and rated person in accordance with Part 2 of these regulations, as appropriate. This approval for return to service shall be made in accordance with the AOC holder's MCM procedures.

(4) The AOC holder shall ensure that the PIC of the aircraft has reviewed the continuing airworthiness records section of the aircraft technical log and has determined that any maintenance performed has been appropriately documented.

(b) Aircraft technical log – continuing airworthiness records section:

(1) An AOC holder shall not operate an aircraft unless the PIC is in possession of a valid logbook entry in the continuing airworthiness records section of the aircraft technical log to indicate that any maintenance performed on the aircraft has been satisfactorily performed and appropriately documented.

9.5.1.11 MODIFICATIONS AND REPAIRS

(a) All modifications and repairs shall comply with airworthiness requirements acceptable to the State of Registry. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements is retained. However, in the case of a major repair or major modification, the work shall have been performed in accordance with technical data approved by the Authority of Curaçao.

(b) An AOC holder may be authorised to perform maintenance, overhaul, modifications, repairs, and inspections on any aircraft or aeronautical product under the AOC, provided:

(1) It is performed under a maintenance system, acceptable to the State of Registry, that is equivalent to that of an AMO established in accordance with Part 6 of these regulations; and

(2) It is performed in accordance with the AOC holder's operations specifications.

(i) An AOC holder using a maintenance system, acceptable to the State of Registry, that is equivalent to that of an AMO that wishes to approve for return to service, after major repairs or major modifications, an aircraft registered in Curaçao shall use a current and valid licensed AMT with an airframe and powerplant rating that is qualified in accordance with Part 2 of these regulations and following procedures acceptable to the State of Registry.

(c) Each AOC holder shall, promptly upon completion, prepare a report of each major modification or major repair of an aircraft or aeronautical product.

(d) The AOC holder shall submit to the Authority a copy of each report of a major modification and shall keep available for inspection a copy of each report of a major repair.

(e) The Authority issuing an approval for the design of a modification, repair, or replacement part shall do so on the basis of satisfactory evidence that the aircraft is in compliance with airworthiness requirements used for the issuance of the type certificate, its amendments, or later requirements,

when determined by the State of Registry.

9.5.1.12 AIRCRAFT MAINTENANCE PROGRAMME

(a) Each AOC holder's aircraft maintenance programme and any subsequent amendment shall be submitted to the State of Registry for approval; acceptance by the Authority of Curaçao will be conditioned upon prior approval by the State of Registry or, where appropriate, upon the AOC holder's compliance with recommendations provided by the State of Registry.

(b) The Authority of Curaçao will require an AOC holder to include a reliability programme when the Authority determines that such a reliability programme is necessary. When such a determination is made by the Authority, the AOC holder shall provide such procedures and information in the AOC holder's MCM.

(c) Each AOC holder shall ensure that each of its aircraft is maintained in accordance with the AOC holder's approved maintenance programme, as required by 9.5.1.2 of this part, which shall include:

(1) Maintenance tasks and the intervals in which these are to be performed, taking into account the anticipated utilisation of the aircraft;

(2) When applicable, a continuing structural integrity programme;

(3) Procedures for changing or deviating from paragraphs 9.5.1.12(c)(1) and (2) of this subsection; and

(4) When applicable, condition monitoring and a reliability programme for aircraft systems, components, and powerplants.

(d) The design and application of the AOC holder's maintenance programme shall observe Human Factors principles.

Note: Guidance material on the application of Human Factors principles can be found in the Human Factors Training Manual *(Doc 9683)*.

(e) Repetitive maintenance tasks that are specified in mandatory intervals as a condition of approval of the type design shall be identified as such.

Note: The maintenance programme should be based on maintenance programme information made available by the State of Design, or by the organisation responsible for the type design, and any additional applicable experience.

(f) No AOC holder may provide for use by its personnel in commercial air transport a maintenance programme or portion thereof that has not been reviewed and approved for the AOC holder by the Authority of Curaçao.

(g) Approval by the Authority of an AOC holder's maintenance programme and any subsequent amendments shall be noted in the operations specifications pursuant to paragraph 9.2.1.3(c) of this part.

(h) Each AOC holder shall have an inspection programme and a programme covering other maintenance, overhaul, modifications, repair, and inspections to ensure that:

(1) Maintenance, overhaul, modifications, repairs, and inspections performed by it, or by other persons, are performed in accordance with the AOC holder's MCM;

(2) Each aircraft returned to service is airworthy and has been properly maintained for operation.

(i) The Authority may amend any specifications issued to an AOC holder to permit deviation from those provisions of this subpart that would prevent the return to service and use of aeronautical products because those items have been maintained, modified, or inspected by persons employed outside Curaçao who do not hold a Curaçao technician's licence. Each AOC holder that is granted authority under this deviation shall provide for surveillance of facilities and practices to ensure that all work performed on these products is accomplished in accordance with the AOC holder's MCM.

9.5.1.13 RELIABILITY PROGRAMME

(a) A maintenance programme for each aeroplane shall contain, when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components, and powerplants.

(b) A reliability programme shall be developed for the aircraft maintenance programme if the maintenance programme is based upon Maintenance Steering Group logic, includes condition-monitored components, or does not contain overhaul time periods for all significant system components.

(c) A reliability programme need not be developed for aircraft not considered large aircraft or that contain overhaul time periods for all significant aircraft system components.

(d) The purpose of a reliability programme is to ensure that the aircraft maintenance programme tasks are effective and that their periodicity is adequate.

(e) A reliability programme may result in the escalation or deletion of maintenance tasks, as well as de-escalation or addition of maintenance tasks.

(f) A reliability programme provides an appropriate means of monitoring the effectiveness of the maintenance programme.

9.5.1.14 AUTHORITY TO PERFORM AND APPROVE MAINTENANCE, OVERHAUL, MODIFICATIONS, REPAIRS, AND INSPECTIONS

(a) An AOC holder that is not certificated as an AMO may perform maintenance, overhaul, modifications, repairs, inspections, and approvals for return to service on any aircraft or aeronautical product, if approved by the State of Registry of the aircraft and listed in the operations specifications, as provided in its maintenance programme, and accepted by the State of the Operator.

(b) An AOC holder may make arrangements with an appropriately rated AMO for the performance of maintenance, overhaul, modifications, repairs, and inspections of any aircraft or aeronautical product as provided in its maintenance programme and MCM. The activities listed shall be performed by an AMO approved by the State of Registry or approved by another Authority that is accepted by the State of Registry.

(c) An AOC holder that is not certificated as an AMO shall use an appropriately licensed and rated person in accordance with Part 2 of these regulations, as appropriate, to approve for return to service any maintenance, overhaul, modifications, repairs, and inspections of any aircraft or aeronautical product after performing or supervising in accordance with technical data approved by the State of Registry. The activities listed shall be performed by a person licensed by the State of Registry.

9.5.1.15 LICENCE REQUIREMENTS FOR A TECHNICIAN – AOC HOLDER USING A SYSTEM WITH PROCEDURES AUTHORIZED BY THE STATE OF REGISTRY

(a) Each person who is directly in charge of the maintenance, overhaul, modification, or repair of any aircraft or aeronautical product and each person who performs required inspections and approves for return to service the work performed shall be an appropriately licensed and rated technician or repair specialist in accordance with Part 2, as appropriate, and shall be acceptable to the Authority. The activities listed shall be performed by a person licensed by the State of Registry.

(b) .A person who is directly in charge shall be on site and need not physically observe and direct each worker constantly but shall be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work.

9.5.1.16 REST AND DUTY LIMITATIONS FOR PERSONS PERFORMING MAINTENANCE FUNCTIONS ON AOC HOLDER AIRCRAFT

(a) No person may assign, nor shall any person perform, maintenance functions for aircraft certificated for commercial air transport unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.

(b) No person may schedule a person performing maintenance functions for aircraft certificated for commercial air transport for more than 12 consecutive hours of duty.

(c) In situations involving unscheduled aircraft unserviceability, persons performing maintenance functions for aircraft certificated for commercial air transport may be continued on duty for:

(1) Up to 16 consecutive hours; or

(2) 20 hours in 24 consecutive hours.

(d) Following unscheduled duty periods, the person performing maintenance functions for aircraft shall have a mandatory rest period of 10 hours.

(e) The AOC holder shall relieve the person performing maintenance functions from all duties for 24 consecutive hours during any 7-consecutive-day period.

9.6 AOC SECURITY MANAGEMENT

9.6.1.1 APPLICABILITY

(a) This subpart provides those certification requirements that apply to the AOC holder's protection of aircraft, facilities, and personnel from unlawful interference.

9.6.1.2 SECURITY REQUIREMENTS

(a) Each AOC holder shall ensure that all appropriate personnel are familiar with, and comply with, the relevant requirements of the national security programmes of the State of the Operator.

9.6.1.3 SECURITY TRAINING PROGRAMMES

(a) Each AOC holder shall establish, maintain, and conduct approved security training programmes that enable the operator's personnel to take appropriate action to prevent acts of unlawful interference, such as sabotage, or unlawful seizure of aircraft and to minimise the consequences of such events should they occur.

(b) Each AOC holder that is responsible for aerodrome screening of passengers, baggage, and cargo shall include screening training in its security training programme.

(c) Each AOC holder's security training programme shall include the items as listed in 8.10.1.11 of these regulations.

9.6.1.4 REPORTING ACTS OF UNLAWFUL INTERFERENCE

(a) Following an act of unlawful interference on board an aircraft, the PIC, or in the PIC's absence, the AOC holder, shall submit without delay a report of such an act to the designated local authority and the Authority in the State of the Operator.

9.6.1.5 AIRCRAFT SEARCH PROCEDURE CHECKLIST

(a) Each AOC holder shall ensure that all its aircraft carry a checklist of the procedures to be followed for that type of aircraft in searching for concealed weapons, explosives, or other dangerous devices.

(b) The aircraft search procedure checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and by information on the least-risk bomb location specific to the aircraft.

9.6.1.6 FLIGHT CREW COMPARTMENT DOORS, IF INSTALLED – SECURITY PROCEDURES

(a) The flight crew compartment door on a passenger-carrying aircraft shall be capable of being locked from within the compartment in order to prevent unauthorised access.

(b) Each AOC holder shall have an approved means by which the cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(c) All passenger-carrying aeroplanes shall be equipped with an approved flight crew compartment door, where practicable, that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusion by unauthorised persons. This door shall be capable of being locked and unlocked from either pilot's station.

(1) The door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and

(2) Means shall be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious

behaviour or potential threat.

9.6.1.7 FLIGHT CREW COMPARTMENT DOORS, LARGE AEROPLANES – SECURITY PROCEDURES

(a) All aeroplanes with a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 shall be equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions by unauthorised persons. This door shall be capable of being locked and unlocked from either pilot's station.

(1) The door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and

(2) Means shall be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

9.6.1.8 CARRIAGE OF WEAPONS

(a) Where an operator accepts the carriage of weapons removed from passengers, the aeroplane shall have provision for stowing such weapons in a place so that they are not accessible to any person during flight time.

9.7 AOC DANGEROUS GOODS MANAGEMENT

Note 1: Subpart 1.6 of these regulations includes safety management provisions for air operators. Further guidance is contained in ICAO Doc 9859, Safety Management Manual (SMM).

Note 2: The carriage of dangerous goods is included in the scope of the operator's SMS.

9.7.1.1 APPLICABILITY

(a) This subpart provides those certification requirements that apply to the management and transport of dangerous goods by air.

9.7.1.2 APPROVAL TO TRANSPORT DANGEROUS GOODS

(a) No AOC holder may transport dangerous goods unless given specific approval to do so by the Authority.

9.7.1.3 SCOPE

(a) Each AOC holder shall comply with the provisions contained in ICAO Doc 9284, *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, hereinafter referred to as "Technical Instructions," on all occasions when dangerous goods are carried, irrespective of whether the flight is wholly or partly within or wholly outside the territory of Curaçao Where dangerous goods are to be transported outside the territory of Curaçao, the AOC holder shall review and comply with the appropriate variations noted by Contracting States contained in Attachment 3 to the Technical Instructions.

(b) Articles and substances that would otherwise be classified as dangerous goods are excluded from the requirements of this subpart, to the extent specified in the Technical Instructions, provided they are:

(1) Required to be on board the aircraft for operating reasons;

(2) Carried as catering or cabin service supplies;

(3) Carried for use in flight as a veterinary aid or as a humane killer for an animal; or

(4) Carried for use in flight for medical aid for a patient, provided that:

(i) Gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;

(ii) Drugs, medicines, and other medical matter are under the control of trained personnel during the time when they are in use in the aircraft;

(iii) Equipment containing wet cell batteries is kept and, when necessary, secured in an upright position to prevent spillage of the electrolyte; and

(iv) Proper provision is made to stow and secure all the equipment during take-off and landing and at all other times when deemed necessary by the PIC in the interests of safety; or

(v) They are carried by passengers or crew members.

(c) Articles and substances intended as replacements for those described in paragraph 9.7.1.3(b)(1) of this subsection shall be transported on an aircraft as specified in the Technical Instructions.

9.7.1.4 LIMITATIONS ON THE TRANSPORT OF DANGEROUS GOODS

(a) Each AOC holder shall take all reasonable measures to ensure that articles and substances that are specifically identified by name or generic description in the Technical Instructions as being forbidden for transport under any circumstances are not carried on any aircraft.

(b) Each AOC holder shall take all reasonable measures to ensure that articles and substances or other goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances, or infected live animals, are transported only when:

(1) They are exempted by the States concerned under the provisions of the Technical Instructions; or

(2) The Technical Instructions indicate that they may be transported under an approval issued by the State of Origin.

9.7.1.5 CLASSIFICATION

(a) Each AOC holder shall ensure that articles and substances are classified as dangerous goods as specified in the Technical Instructions.

9.7.1.6 PACKAGINGS

(a) Each AOC holder shall ensure that dangerous goods are packaged as specified in the Technical Instructions.

(b) Packagings used for the transport of dangerous goods by air shall:

(1) Be of good quality and shall be constructed and securely closed so as to prevent leakage that might be caused in normal conditions of transport, by vibration, or by changes in temperature, humidity, or pressure;

(2) Be suitable for the contents. Packagings in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods;

(3) Meet the material and construction specifications in the Technical Instructions; and

(4) Be tested in accordance with the provisions of the Technical Instructions.

(c) Packagings for which retention of a liquid is a basic function shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.

(d) Inner packagings shall be so packed, secured, or cushioned as to prevent breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials shall not react dangerously with the contents of the packagings.

(e) No packaging shall be reused until it has been inspected and found free from corrosion or other damage. Where a packaging is reused, all necessary measures shall be taken to prevent contamination of subsequent contents.

(f) If, because of the nature of their former contents, uncleaned empty packagings may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.

(g) No harmful quantity of a dangerous substance shall adhere to the outside of packagings.

9.7.1.7 LABELLING AND MARKING

(a) Each AOC holder shall ensure that packagings, overpacks, and freight containers are labelled as specified in the Technical Instructions.

(b) Each AOC holder shall ensure that packagings, overpacks, and freight containers are marked with:

(1) The proper shipping name of their contents;

(2) The United Nations number, when assigned; and

(3) Other such markings as may be specified in the Technical Instructions.

(c) Each AOC holder shall ensure that packagings manufactured to a specification contained in the Technical Instructions shall be so marked in accordance with the Technical Instructions.

(d) Where dangerous goods are carried on a flight that takes place wholly or partly outside the territory of Curaçao, the AOC holder shall ensure that labelling and marking are in the English language in addition to any other language requirements.

9.7.1.8 DANGEROUS GOODS TRANSPORT DOCUMENT

(a) Each AOC holder shall ensure that, except when otherwise specified in the Technical Instructions, dangerous goods are accompanied by a dangerous goods transport document.

(b) Where dangerous goods are carried on a flight that takes place wholly or partly outside the territory of Curaçao, the AOC holder shall ensure that the English language is used for the dangerous goods transport document in addition to any other language requirements.

9.7.1.9 ACCEPTANCE OF DANGEROUS GOODS

(a) No AOC holder may accept dangerous goods for transport until the packaging, overpack, or freight container has been inspected in accordance with the acceptance procedures in the Technical Instructions.

(b) Each AOC holder, or its handling agent, shall use an acceptance checklist that:

(1) Shall allow for all relevant details to be checked; and

(2) Shall be in such a form as will allow for the recording of the results of the acceptance check by manual, mechanical, or computerised means.

(c) Each designated postal operator shall have the procedure for controlling the introduction of dangerous goods in mail into air transport approved by the Authority where the mail is accepted.

Note 1: In accordance with the Universal Postal Union Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.

Note 2: The UPU has established procedures to control the introduction of dangerous goods into air transport through the postal services (see the Universal Postal Union Parcel Post Regulations and Letter Post Regulations).

Note 3: Guidance for approving the procedures established by designated postal operators to control the introduction of dangerous goods into air transport may be found in the Supplement to the Technical Instructions, Part S-1, Chapter 3.

9.7.1.10 INSPECTION FOR DAMAGE, LEAKAGE, OR CONTAMINATION

(a) Each AOC holder shall ensure that:

(1) Packagings, overpacks, and freight containers are inspected for evidence of leakage or damage immediately prior to loading on an aircraft or into a ULD, as specified in the Technical Instructions;

(2) A ULD is not loaded on an aircraft unless it has been inspected as required by the Technical Instructions and has been found free from any evidence of leakage from, or damage to, the dangerous goods contained therein;

(3) Leaking or damaged packagings, overpacks, or freight containers are not loaded on an aircraft;

(4) Any packaging of dangerous goods that is found on an aircraft and appears to be damaged or leaking is removed, or arrangements are made for its removal by an appropriate authority or organisation;

(5) After removal of any leaking or damaged goods, the remainder of the consignment is

inspected to ensure it is in a proper condition for transport and that no damage or contamination has occurred to the aircraft or its load; and

(6) Packagings, overpacks, and freight containers are inspected for signs of damage or leakage upon unloading from an aircraft or a ULD and, if there is evidence of damage or leakage, the area where the dangerous goods were stowed is inspected for damage or contamination.

9.7.1.11 REMOVAL OF CONTAMINATION

(a) Each AOC holder shall ensure that:

(1) Any contamination found as a result of the leakage or damage of dangerous goods is removed without delay; and

(2) An aircraft that has been contaminated by radioactive materials is immediately taken out of service and not approved for return to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

9.7.1.12 LOADING RESTRICTIONS AND STOWAGE OF DANGEROUS GOODS

(a) Each AOC holder shall ensure that packagings and overpacks containing dangerous goods and freight containers containing radioactive materials are loaded and stowed in accordance with the Technical Instructions.

(1) PASSENGER CABIN AND FLIGHT DECK. Each AOC holder shall ensure that dangerous goods are not carried in an aircraft cabin occupied by passengers, or on the flight deck, unless otherwise specified in the Technical Instructions.

(2) CARGO COMPARTMENTS. Each AOC holder shall ensure that dangerous goods are loaded, segregated, stowed, and secured on an aircraft as specified in the Technical Instructions.

(3) DANGEROUS GOODS DESIGNATED FOR CARRIAGE ONLY ON CARGO AIRCRAFT. Each AOC holder shall ensure that packagings of dangerous goods bearing the “Cargo Aircraft Only” label are carried on a cargo aircraft and are loaded as specified in the Technical Instructions and in a manner that a crew member or other authorised person can see, handle, and where size and weight permit, separate such packagings from other cargo in flight.

(b) Packagings containing dangerous goods shall be separated when stowing, as follows:

(1) Those packagings containing dangerous goods that may react dangerously with other packagings shall not be stowed next to each other on an aircraft or in a position that may allow interaction between them in the event of a leakage.

(2) Those packagings containing toxic and infectious substances shall be stowed on an aircraft in accordance with the Technical Instructions.

(3) Those packagings containing radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals, and undeveloped film and secured in flight in accordance with the Technical Instructions.

(c) The AOC holder shall protect and secure any dangerous goods in such a manner that will prevent any movement in flight that might change the orientation of the packagings.

9.7.1.13 PROVISION OF INFORMATION

(a) Information to ground personnel. L. Each AOC holder shall ensure that:

(1) Information is provided to enable ground personnel to carry out their duties with regard to the transport of dangerous goods, including the actions to be taken in the event of incidents and accidents involving dangerous goods; and

(2) Where applicable, the information referred to in paragraph 9.7.1.13(a)(1) of this subsection is also provided to the handling agent.

(b) Information to passengers. Each AOC holder shall ensure that information is promulgated as required by the Technical Instructions so that passengers are warned as to the types of goods that they are forbidden from transporting on board an aircraft.

(c) Information to shippers. Each AOC holder shall ensure that information is promulgated as required by the Technical Instructions so that shippers of dangerous goods are provided with the information as required by the Technical Instructions to enable them to carry out their responsibilities with regard to the transport of dangerous goods and the action to be taken in the event of emergencies arising involving dangerous goods.

(d) Information to acceptance points personnel. Each AOC holder and, where applicable, the handling agent shall ensure that notices are provided at acceptance points for cargo, giving information about the transport of dangerous goods, including the actions to be taken in the event of emergencies arising involving dangerous goods.

(e) Information to crew members. Each AOC holder shall ensure that information is provided in the OM to enable crew members to carry out their responsibilities with regard to the transport of dangerous goods, including the actions to be taken in the event of emergencies arising involving dangerous goods.

(f) Nformation to the PIC. Each AOC holder shall ensure that the PIC is provided, as early as is practicable before the departure of the flight, with written information, as specified in the Technical Instructions.

(g) Information in the event of an in-flight emergency. If an in-flight emergency occurs, the PIC shall, as soon as the situation permits, inform the appropriate ATS unit, for the information of the aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.

(h) Information in the event of an aircraft incident or accident. Each AOC holder that is involved in an aircraft incident or accident shall:

(1) As soon as possible, inform the appropriate authority of the State in which the aircraft incident or accident occurred of any dangerous goods carried; and

(2) On request, provide any information required to minimise the hazards created by any dangerous goods carried.

9.7.1.14 DANGEROUS GOODS TRAINING PROGRAMME AND MANUAL

(a) Each AOC holder shall have a dangerous goods training programme approved by the Authority, whether or not the AOC holder is approved to transport dangerous goods.

(b) Crew members, passenger-handling personnel, and security personnel employed by the AOC holder that deal with the screening of passengers and their baggage and cargo shall receive initial and recurrent training that covers, at a minimum, the areas identified in Part 8 of these regulations to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify dangerous goods, and what requirements apply to the carriage of such goods by passengers.

(c) At a minimum, the dangerous goods training programme shall include the items as listed in 8.10.1.10 of these regulations.

(d) The AOC holder shall provide such information in the OM as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

9.7.1.15 DANGEROUS GOODS INCIDENT AND ACCIDENT REPORTS

(a) Each AOC holder shall report dangerous goods incidents and accidents to the Authority within 72 hours of the events, unless exceptional circumstances prevent this.

(b) Each AOC holder shall report undeclared or misdeclared dangerous goods discovered in cargo or passenger's baggage to the Authority within 72 hours of the discovery, unless exceptional circumstances prevent this.

9.7.1.16 SHIPPER'S RESPONSIBILITIES

(a) No person shall offer a packaging, overpack, or freight container containing dangerous goods for shipment by air unless that person has, in accordance with the Technical Instructions, ensured that the dangerous goods are:

(1) Properly classified, packed, marked, and labelled and in the proper condition for transport by air in accordance with the relevant regulations; and

(2) Accompanied by a properly executed dangerous goods transport document.

(b) In completing the dangerous goods transport document for the AOC holder, the shipper shall, in accordance with the Technical Instructions and any other regulations of Curaçao:

(1) Declare that the dangerous goods are fully and accurately described by their proper shipping names;

(2) Declare that the dangerous goods are classified, packed, marked, and labelled and in the proper condition for transport;

(3) Complete the form in both the language of Curaçao and in English when the dangerous goods are to be carried either wholly or partly outside Curaçao; and

(4) Sign the form.

9.7.1.17 DANGEROUS GOODS SECURITY PROVISIONS

(a) Each shipper and operator and other persons engaged in the transport of dangerous goods by air shall establish security measures, consistent with these regulations, to minimise theft or misuse of dangerous goods that may endanger persons, property, or the environment.

9.8 CARGO COMPARTMENT SAFETY

9.8.1.1 TRANSPORT OF ITEMS IN THE CARGO COMPARTMENT

(a) The AOC holder shall establish policy and procedures for the transport of items in the cargo compartment, which include the conduct of a specific safety risk assessment. The risk assessment shall include at least the:

(1) Hazards associated with the properties of the items to be transported;

(2) Capabilities of the operator;

(3) Operational considerations (e.g., area of operations, diversion time);

(4) Capabilities of the aeroplane and its systems (e.g., cargo compartment fire suppression capabilities);

(5) Containment characteristics of ULDs;

(6) Packing and packaging;

(7) Safety of the supply chain for items to be transported; and

(8) Quantity and distribution of dangerous goods items to be transported.

Note 1: Additional operational requirements for the transport of dangerous goods are contained in 9.7 of this part.

Note 2: Guidance on the hazards associated with the transport of items in the cargo compartment, the conduct of a specific safety risk assessment in accordance with ICAO Doc 9859, Safety Management Manual (SMM)*, and the responsibilities for the transport of dangerous goods, is contained in ICAO Doc 10102,* Cargo Compartment Operational Safety Manual [working title].

9.8.1.2 FIRE PROTECTION

(a) The elements of the cargo compartment(s) fire protection system as approved by the State of Design or State of Registry, and a summary of the demonstrated cargo compartment fire protection certification standards, shall be provided in the AFM or other documentation supporting the operation of the aeroplane.

Note: Guidance on the elements of cargo compartment fire protection and associated demonstrated standards are provided in the Guidance for Safe Operations Involving Cargo Compartments *(Doc 10102).*

(b) The AOC holder shall establish policy and procedures that address the items to be transported in the cargo compartment. These shall ensure to a reasonable certainty that in the event of a fire involving those items, it can be detected and sufficiently suppressed or contained by the elements of the aeroplane design associated with cargo compartment fire protection, until the aeroplane makes a safe landing.

Note: Guidance on policies and procedures that address the items to be transported in the cargo compartment are provided in the Guidance for Safe Operations Involving Cargo Compartments *(Doc 10102).*

(c) Each cargo compartment within aircraft operated by AOC holders shall be equipped with a built-in fire detection system, and a means to suppress a fire, except when the presence of a fire would be easily discovered by a crew member while at the crew member's station and the crew member has a means to extinguish it rapidly.

(d) The means to suppress a fire for each cargo compartment not accessible to a crew member shall include a built-in fire suppression system.

(e) For aeroplanes of a maximum certificated take-off mass in excess of 45 000 kg or with a passenger seating capacity greater than 60, cargo compartment fire suppression systems, including their extinguishing agents, shall be designed so as to take into account a sudden and extensive fire such as could be caused by an explosive or incendiary device.

(f) For those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2025, the elements of the aeroplane design associated with cargo compartment fire protection, and a summary of the demonstrated standards that were considered in the process of aeroplane certification, shall be included in the required aeroplane documentation and made available to the operator.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 9 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 9.3.2.3 reflects a standard required by 9.3.2.3 of this part.

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PART 9 – IMPLEMENTING STANDARDS

IS 9.2.1.3(B) CONTENTS OF AN AOC

(a) The AOC will be based on the following template:

AIR OPERATOR CERTIFICATE (AOC)		
CURAÇAO		
	MINISTRY OF **TRAFFIC, TRANSPORT & URBAN PLANNING** **Curaçao Civil Aviation Authority**	
	Address: Seru Mahuma z/n, Curacao Telephone: +599-9-839-3319 Fax: +599-9-868-9924 E-mail: civilair@gobiernu.cw	
AOC Number: Expiry Date:	Operator Name: DBA trading name: Operator address: Telephone: E-mail:	Operational Points of Contact:
This certificate certifies that _____ is authorized to perform commercial air transport operations, as defined in the attached Operations Specifications, in accordance with the Operations Manual and the Civil Aviation Act of _____ and the corresponding regulations prescribed thereunder.		
Date of issue: Place of Issue: **Curaçao**	Name and Signature: Title:	

IS 9.2.1.3(C) CONTENTS OF OPERATIONS SPECIFICATIONS

(a) The operations specifications layout will be as follows:

OPERATIONS SPECIFICATIONS
Subject to the approved conditions in the Operations Manual



MINISTRY OF
TRAFFIC, TRANSPORT AND URBAN PLANNING
CURAÇAO CIVIL AVIATION AUTHORITY

	Address: Seru Mahuma z/n Telephone: +599-9-839-3319 Fax: +599-9-868-9924 E-mail: civilair@gobiernu.cw		
AOC#:[2]	Operator Name:[3]	Date:[4]	Signature: Director General
DBA trading name:[3]			
Aircraft Make:[5a]	Aircraft Model:	Aircraft Series:	
Registration Marks:[5b]			

Types of Operation:	☐ Passengers	☐ Cargo	☐ Other:[6]
Area(s) of operation:[7]			
Special limitations:[8]	None		

Specific Approval:	**Yes**	**No**	**Description**			**Remarks**
Dangerous goods	☐	☐				
Low - visibility operations:						
Approach and landing	☐	☐	CAT:[10] RVR: __ m DH: __ ft			
Take-off	☐	☐	RVR:[11]			
Operational credit(s)	☐	☐	[12]			
RVSM[13] ☐ N/A	☐	☐				
EDTO[14] ☐ N/A	☐	☐	Threshold Time:[15] Maximum diversion time:[15]	----- -----	minutes minutes	
AR navigation specifications for PBN operations	☐	☐	[16]			
Continuing airworthiness	X	X	[17]			
EFB	☐	☐	[18]			
Other[19]	☐	☐				

1. Insert the telephone contact details of the Authority, including the country code. Provide the Authority's email and fax if available.

2. Insert the associated AOC number.

3. Insert the operator's registered name and the operator trading name, if different. Insert "DBA" before the trading name (for "doing business as").

4. Insert the issuance date of the operations specifications (dd-mm-yyyy) and the signature of the Authority representative.

5a. Insert the CAST/ICAO designation of the aircraft make, model, and series or master series, if a series has been designated (e.g., Boeing-737-3K2 or Boeing-777-232). The CAST/ICAO taxonomy is available at: http://www.intlaviationstandards.org/.

5b. List the aircraft registration marks that are applicable in 5a.

6. Specify other type of transportation (e.g., emergency medical service).

7. List the geographical area(s) of authorised operation (by geographical coordinates or specific routes, flight information region, or national or regional boundaries) as defined by the Issuing Authority.

8. List the applicable special limitations (e.g., VFR only, day only, etc.).

9. List the most permissive criteria for each specific approval (with appropriate criteria).

10. Insert the applicable instrument approach operation classified as Type B (CAT II or III). Insert the minimum RVR in metres and DH in feet. Use one line per listed approach category.

11. Insert the approved minimum take-off RVR in metres, or the equivalent horizontal visibility if RVR is not used. One line per approval may be used if different approvals are granted.

12. List the airborne capabilities (e.g., automatic landing, HUD, EVS, SVS, CVS) and associated operational credit(s) granted.

13. Check the not applicable (N/A) box only if the aircraft maximum ceiling is below FL 290.

14. List the EDTO specific approvals, if applicable. If EDTO does not apply, select "N/A." If EDTO approval does not apply based on the provisions in ICAO Annex 6, Part I: 4.7, select "N/A." Otherwise, a threshold time and maximum diversion time must be specified.

15. The threshold time and maximum diversion time may also be listed in distance (NM). Details of each particular aeroplane-engine combination for which the threshold time is established and maximum diversion time has been granted may be listed under "Remarks." One line per approval may be used if different approvals are granted.

16. PBN: Use one line for each PBN AR navigation specification approval (e.g., RNP, AR, APCH), with appropriate limitations listed in the "Description" column.

17. Insert the name of the person/organisation responsible for ensuring that the continuing airworthiness of the aircraft is maintained and the regulations that require the work, within the AOC regulation or a specific approval (e.g., EC2042/2003, Part M, Subpart G).

18. List the EFB functions used for the safe operation of aeroplanes and any applicable limitations.

19. Enter other authorisations or data, using one line (or one multi-line block) per authorisation (e.g., special approach authorisation, approved navigation performance).

IS 9.3.2.2 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(a) Each AOC holder shall make arrangements to ensure continuity of supervision if operations are conducted in the absence of any required management personnel.

(b) Required management personnel shall be contracted to work sufficient hours, such that the management functions are fulfilled.

(c) A person serving in a required management position for an AOC holder shall have understanding of the aviation act of Curaçao and the regulations prescribed thereunder.

(d) A person serving in a required management position for an AOC holder may not serve in a similar position for any other AOC holder, unless an exemption is issued by the Authority.

(e) The minimum requirements for an Accountable executive are:

(1) Bachelor Degree in aviation or an equivalent level of knowledge;

(2) 10 years of experience in aviation, of which 3 years must have been in a supervisory capacity;

(3) Experience in aircraft maintenance as well as in flight/ground operations;

(f) The minimum initial qualifications for an Operations manager are:

(1) An ATPL; and

(2) 3 years' experience as PIC in commercial air transport operations:

(i) Of large aircraft, if the AOC holder operates large aircraft; or

(ii) Of either large or small aircraft, if the AOC holder operates only small aircraft.

(g) The minimum qualifications for a Chief pilot/ Fleet manager are:

(1) An ATPL with the appropriate ratings for at least one of the aircraft used in the AOC holder's operations; and

(2) 3 years' experience as PIC in commercial air transport operations:

(i) In large aircraft, if the AOC holder operates large aircraft; or

(ii) In either large or small aircraft, if the AOC holder operates only small aircraft.

Note: The Authority may accept a commercial pilot licence with instrument rating in lieu of the ATPL if the PIC requirements for the operations conducted require only a commercial certificate.

(h) The minimum qualifications for a Continuing Airworthiness manager are:

(1) An AMT licence with airframe and powerplant ratings;

(2) 5 years' experience in maintaining the same category and class of aircraft used by the AOC holder, including 3 years in the capacity of returning aircraft to service; and

(3) 3 year of supervisory experience maintaining the same category and class of aircraft used by the AOC holder.

(i) The minimum qualifications for a Chief inspector are:

(1) An AMT licence with airframe and powerplant ratings; and

(2) 5 years' experience in maintaining the same category and class of aircraft used by the AOC holder, including 3 years in the capacity of returning aircraft to service.

(i) The minimum entry qualifications for a Cabin Crew Manager are:

(1) A working knowledge of the contents of the air operator's operations manual, AOC and operations specifications as is necessary for the performance of the assigned duties;

(2) A working knowledge of such of the provisions of the Civil Aviation Regulations, as are necessary for the performance of the assigned duties;

(3) A minimum of 5 years experience and qualifications relevant to their duties and responsibilities.

(j) The minimum entry qualifications for a Training Manager are:

(1) Practical experience and expertise in the application of aviation safety standards and safe operating practices;

(2) Comprehensive knowledge of:

(a) PART 9 and it's IS and any associated requirements and procedures;

(b) The AOC holder's Operations Specifications;

(c) The nominated post holder or his deputy should be a current Type Rating Instructor on a type/ class operated under the AOC;

(d) The nominated post holder should have a thorough knowledge of the AOC holder's crew training concept for Flight Crew and for Cabin Crew when relevant.

(k) The minimum entry qualifications for a Ground Services Manager are:

(1) Practical experience and expertise in the application of aviation safety standards and safe operating practices;

(2) A comprehensive knowledge of the provisions of the Civil Aviation Regulations, as are necessary for the performance of the assigned duties.

(3) A Comprehensive knowledge of:

(a) The AOC holder's Operations Specifications;

(b) The nominated post holder should have a thorough knowledge of the AOC Holder's ground operations concept and should include the basic knowledge of the following:

(ii) Passenger handling

(iii) Baggage handling

(iv) Cargo/ Mail handling

(v) Aircraft handling & Loading

(vi) Load control

(vii) Airside Management & Safety

(viii) Aircraft movement control

(ix) Ground handling agreements

(x) Airport handling ground support equipment specifications

(xi) Foreign Object Damage awareness training

(xii) Dangerous Goods Training

(l) The minimum entry qualifications for a Security Manager are:

(1) Practical experience and expertise in the application of aviation safety and security standards and safe operating practices;

(2) Comprehensive knowledge of:

(a) The National Civil Aviation Security Programme (NCASP), and, for the protection of aircraft, facilities and personnel from acts of unlawful interference;

(b) Have a thorough knowledge of AOC holder Approved Air Operator Security Manual;

(c) A minimum of two years experience and qualifications relevant to their duties and responsibilities;

(m) An AOC holder may employ a person who does not meet the appropriate airman qualifications or experience if the Authority issues an exemption finding that that person has comparable experience and can effectively perform the required management functions.

(n) Acceptance Process, all nominated post holders are subject to the acceptance of the Authority. For the acceptance/ approval process, the Executive manager is requested to send with a written request the nominated post holder(s):

(1) Candidate's detailed CV;

(2) Applicable diplomas and certificates to support the CV;

(3) Any other document providing candidate's experience and expertise;

(4) Proof of good conduct (verklaring omtrent goedgedrag);

(5) If the employee is a foreigner, he/ she shall submit:

(a) a residence permit or

(b) a declaration in connection with admission for an indefinite period, or

(c) a declaration stating that the Landsverordening Toelating en Uitzetting (LTU) is not applicable, or a naturalization decision;

(d) a work permit.

(o) Evaluation, the Authority acceptance will be based on:

(1) Fulfilling basic and specific requirements - evaluation of received documents; Background check - no criminal record;

(2) Interview- understanding of the role, duties and responsibilities as post holder.

IS 9.3.2.3 QUALITY SYSTEM

(a) In order to show compliance with 9.3.2.3 of this part, an AOC holder shall establish its quality system in accordance with the instruction and information contained in the following paragraphs.

1.0 General

1.1 Terminology.

1.1.1 The terms used in the context of the requirement for an operator's quality system have the following meaning:

(a) **Executive manager.** The person acceptable to the Authority, who has corporate authority for ensuring that all operational and maintenance functions can be financed and performed to the standard required by the Authority and any additional requirements defined by the operator.

(b) **Quality assurance.** As distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systematic actions that are required to provide adequate confidence that a product or service satisfies quality requirements.

1.2 Purpose of the Quality System.

1.2.1 The quality system shall enable an operator to monitor compliance with these regulations, the operator's manual system, and any other standards specified by the operator, or the Authority, to ensure safe operations and airworthy aircraft and aeronautical products.

1.3 Organisational Structure.

1.3.1 The operator may specify the basic structure of the quality system according to the size and complexity of the operation to be monitored.

1.3.2 References to large and small operators elsewhere in these regulations are governed by aircraft capacity (i.e., more or less than 20 seats) and by mass (i.e., greater or less than10,000kg (10 tonnes) maximum certificated take-off mass). Such terminology is not relevant when considering the scale of an operation and the quality system required. In the context of quality systems, therefore, operators shall be categorised according to the number of full-time personnel.

1.3.3 An operator shall be categorised according to the number of full-time personnel. Operators that employ 5 or fewer full-time employees are considered to be "very small" operations, while those employing between 6 and 20 full-time employees are regarded as "small" operations, as far as quality systems are concerned. Full time in this context means employed for not less than 35 hours per week, excluding vacation periods.

1.3.4 Complex quality systems may be inappropriate for a small or very small operation, and the clerical effort required to develop manuals and quality procedures for a complex system may stretch that operator's resources. It is therefore accepted that such an operator may tailor its quality system to suit the size and complexity of the operation and allocate resources accordingly.

1.3.5 For small and very small operators, it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist shall have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken.

1.3.6 A small operator may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and/or qualified organisations to perform the quality audits on behalf of the quality manager.

1.4 Scope.

1.4.1 As a minimum, the quality system shall address the following:

(a) Relevant terminology;

(b) The applicable requirements of these regulations;

(c) Any additional standards and practices of the operator;

(d) A description of the operator, including the operational structure;

(e) Identification of those persons responsible for the development, establishment, and management of the quality assurance programme, including a description of their duties and responsibilities;

(f) Relevant portions of manuals, reports, and records, including a distribution list of all controlled copies;

(g) The operator's quality policy;

(h) Quality procedures;

(i) A quality assurance programme, including:

(1) The schedule of the monitoring process;

(2) Audit procedures;

(3) Reporting procedures;

(4) Follow-up and corrective action procedures; and

(5) A recording system.

(j) The required financial, material, and human resources; and

(k) Training requirements.

1.5 Safety Attributes.

1.5.1 Where appropriate, an operator shall incorporate the following safety attributes into its policies, procedures, and processes:

(a) Authority;

(b) Responsibility;

(c) Procedures;

(d) Controls;

(e) Process measurements; and

(f) Interfaces.

1.6 Relevant Documentation.

1.6.1 The required quality system may be documented in the OM or in a separate Quality Manual. In either instance, the documentation shall:

(a) Contain instructions and information to allow the personnel concerned to perform their duties with a high degree of safety;

(b) Be easy to revise;

(c) Allow personnel to determine the current revision status;

(d) Have the date of the last revision on each page;

(e) Not be contrary to any applicable regulation or the operator's operations specifications; and

(f) Reference applicable regulations.

1.6.2 Each document defined within the structure of an operator's quality system shall be subject to document control. Document control procedures shall ensure that the documents are:

(a) Authorised;

(b) Adequate;

(c) Security classified;

(d) Standardised when completed;

(e) Revised and amended when required;

(f) Appropriately distributed;

(g) Appropriately stored;

(h) Periodically reviewed; and

(i) Appropriately disposed of.

1.7 Quality Policy.

1.7.1 An operator shall establish a formal, written quality policy statement that is a commitment by the executive manager as to what the quality system is intended to achieve.

1.7.2 The quality policy shall reflect initial and continued compliance with these regulations, the operator's manual system, and any additional requirements defined by the operator or the Authority.

1.7.3 The quality policy shall clearly define the operator's purpose, structure, principal and objectives, and all the services rendered by the operator.

1.8 Quality Management.

1.8.1 With regard to the text in paragraph 9.3.2.2(a) of this part, the term "executive manager" is intended to mean the chief executive/president/managing director/general manager, etc., of the operator's organisation who, by virtue of that position, has overall responsibility (including financial) for managing the organisation.

1.8.2 The executive manager shall have overall responsibility for the operator's quality system, including the frequency, format, and structure of the internal management evaluation activities as prescribed in paragraph 2.11 of this IS.

1.8.3 The function of the quality manager is to monitor compliance with, and the adequacy of, procedures required to ensure safe practices and airworthy aircraft and aeronautical products as required by these regulations.

1.8.4 The quality manager shall be responsible for ensuring that the quality assurance programme is properly established, implemented, and maintained.

1.8.5 The quality manager shall:

(a) Report to the executive manager;

(b) Not be one of the required management personnel; and

(c) Have access to all parts of the operation and, as necessary, to any contractor's or subcontractor's operation.

1.8.6 In the case of a very small or small operator, as defined in 1.3.3 of this IS, the positions of the executive manager and quality manager may be combined.

1.9 Feedback System.

1.9.1 The quality system shall include a feedback system to the executive manager to ensure that corrective action is identified and promptly addressed.

1.9.2 The feedback system shall specify who is required to rectify discrepancies and non-compliance in each particular case, and the procedure to be followed if corrective action is not completed within an appropriate timescale.

2.0 Quality Assurance Programme

2.1 Introduction.

2.1.1 The quality assurance programme shall include all planned and systematic actions necessary to provide confidence that operational and maintenance functions are conducted in accordance with all applicable requirements, standards, and procedures.

2.2 Quality Assurance Programme Plan.

2.2.1 An operator shall describe its quality assurance duties, responsibilities, and procedures in a programme plan.

2.2.2 Terms and elements defined in the plan shall be consistent with those outlined in the operator's manual system.

2.2.3 Copies of the programme plan shall be distributed to all personnel concerned.

2.2.4 Revisions shall be made as necessary to ensure the plan continues to reflect the operator's current quality assurance duties, responsibilities, and procedures.

2.3 Monitoring.

2.3.1 The purpose of monitoring within the quality system is primarily to investigate and judge the effectiveness of the quality system and thereby to ensure that defined policy and operational and maintenance standards are continuously complied with.

2.3.2 Monitoring activity is based upon:

(a) Quality inspections;

(b) Quality audits;

(c) Corrective action; and

(d) Follow-up.

2.3.3 The operator shall establish and publish a quality procedure to monitor regulatory compliance on a continuing basis. This monitoring activity shall be aimed at eliminating the causes of unsatisfactory performance.

2.3.4 Any non-compliance identified as a result of monitoring shall be communicated to the manager responsible for taking corrective action or, if appropriate, to the executive manager. Such non-compliance shall be recorded, for the purpose of further investigation, in order to determine the cause and to enable the recommendation of appropriate corrective action.

2.4 Quality Inspection.

2.4.1 The primary purpose of a quality inspection is to observe a particular event, action, document, etc., in order to verify whether established procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.

2.4.2 Typical subject areas for quality inspections are:

(a) Actual flight operations;

(b) Ground de-icing/anti-icing;

(c) Flight support services;

(d) Load control;

(e) Maintenance;

(f) Technical standards; and

(g) Training standards.

2.4.3 Typical methods used for quality inspections for maintenance include:

(a) Product sampling – the monitoring of a representative sample of aeronautical products of the aircraft fleet;

(b) Defect sampling – the monitoring of defect rectification performance;

(c) Concession sampling – the monitoring of any concession to not carry out maintenance on time;

(d) On-time maintenance sampling – the monitoring of when (flying hours, calendar time, flight cycles, etc.) aircraft and aeronautical products are brought in for maintenance; and

(e) Sample reports of unairworthy conditions and maintenance errors on aircraft and components.

2.5 Quality Audit.

2.5.1 A quality audit is a systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

2.5.2 Audits shall include at least the following quality assurance procedures and processes:

(a) A statement explaining the scope of the audit;

(b) Planning and preparation;

(c) Gathering and recording evidence; and

(d) Analysis of the evidence.

2.5.3 Techniques that contribute to an effective audit are:

(a) Interviews or discussions with personnel;

(b) A review of published documents;

(c) The examination of an adequate sample of records;

(d) The observation of the activities that make up the operation; and

(e) The preservation of documents and the recording of observations.

2.6 Auditors.

2.6.1 An operator may decide, depending upon the complexity of the operation, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team shall have relevant operations and/or maintenance experience.

2.6.2 The responsibilities of the auditors shall be clearly defined in the relevant documentation.

2.7 Auditor's Independence.

2.7.1 Auditors shall not have any day-to-day involvement in the area of the activity that is to be audited. An operator may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An operator whose structure and size does not justify the establishment of full-time auditors may undertake the audit function by the use of part-time personnel from within its own operation or from external sources under the terms of an agreement acceptable to the Authority. In all cases, the operator shall develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist is familiar with the type of operation and/or maintenance conducted by the operator.

2.7.2 The operator's quality assurance programme shall identify the persons within the operation who have the experience, responsibility, and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record any concerns or findings and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific timescales; and

(e) Report directly to the quality manager.

2.8 Audit Scope.

2.8.1 An operator shall monitor compliance with the operational and maintenance procedures it has designed to ensure safe operations, airworthy aircraft and aeronautical products, and the serviceability of both operational and safety equipment. In doing so it shall, as a minimum and where appropriate, monitor:

(a) Plans and company objectives;

(b) Operational and maintenance procedures;

(c) Flight safety

(d) Operator's certification, including operations specifications;

(e) Supervision;

(f) Aircraft performance;

(g) All-weather operations;

(h) Mass, balance, and aircraft loading;

(i) Instruments and safety equipment;

(j) Manuals, logs, and records;

(k) Flight and duty time limitations, rest requirements, and scheduling;

(l) Aircraft maintenance – operations interface;

(m) Use of the MEL;

(n) Maintenance programmes and continuing airworthiness;

(o) AD management;

(p) Maintenance accomplishment;

(q) Defect deferral;

(r) Dangerous goods;

(s) Security; and

(t) Training.

2.8.2 Whatever arrangements are made, an operator shall retain the ultimate responsibility for the quality system and for the completion and follow-up of corrective action.

2.9 Audit Scheduling.

2.9.1 A quality assurance programme shall include a defined audit schedule and a periodic review cycle area by area.

2.9.2 An operator shall establish a schedule of audits to be completed during a specified calendar period. All aspects of the operation shall be reviewed within every 12-month period in accordance with the quality assurance programme unless an extension to the audit period is accepted as explained below. An operator may increase the frequency of audits at its discretion but shall not decrease the frequency without the agreement of the Authority. Audit frequency shall not be decreased beyond a 24-month-period interval.

2.9.3 When an operator defines the audit schedule, significant changes to the management, operation, technologies, or these regulations shall be considered.

2.9.4 The schedule shall be flexible and shall allow unscheduled audits when trends are identified.

2.9.5 If the independent quality audit function is being conducted by external auditors, the audit schedule shall be shown in the relevant documentation.

2.10 Corrective Action and Follow-Up.

2.10.1 Corrective Action Plans

(a) The quality assurance programme shall include procedures to ensure that corrective action plans are developed in response to findings. These procedures shall monitor corrective actions to verify their effectiveness and ensure their completion. Operational responsibility and accountability for the implementation of corrective action shall reside with the department cited in the report identifying the finding. The executive manager shall have the ultimate responsibility for resourcing the corrective action and ensuring, through the quality manager, that the corrective action has re-established compliance with the requirements of the Authority and any additional requirements defined by the operator.

(b) Subsequent to the quality inspection/audit, the individuals responsible for managing a quality assurance programme shall facilitate the corrective action process by establishing:

(1) The identification and seriousness of any findings or concerns and any need for immediate corrective action;

(2) The analysis of objective evidence to determine the root cause(s) of the finding or concern;

(3) The identification of planned corrective steps that will ensure that the apparent violation or concern does not recur;

(4) An implementation schedule, including a time frame for putting corrective steps in place; and

(5) The individuals or departments responsible for implementing the corrective action.

2.10.2 Follow-Up.

(a) Follow-up audits shall be scheduled when necessary to verify that corrective action has been performed and that it has been effective.

(b) The quality manager shall:

(1) Ensure that corrective action plans are developed in response to findings of non-compliance;

(2) Verify that corrective action plans include the elements outlined in paragraph 2.10.1 of this IS;

(3) Monitor the implementation and completion of corrective action plans;

(4) Provide management with an independent assessment of corrective action plan development, implementation, and completion; and

(5) Initiate scheduled and/or unannounced follow-up evaluations to ensure the effectiveness of corrective steps specified in corrective action plans.

2.11 Management Evaluation.

2.11.1 A management evaluation is a comprehensive, systematic, documented review by management of the quality system and the operator's policies and procedures. The management evaluation shall consider:

(a) The results of quality inspections, audits, and any other indicators; and

(b) The overall effectiveness of the management organisation in achieving stated objectives.

2.11.2 A management evaluation shall identify and correct trends and shall prevent, where possible, future nonconformities. Conclusions and recommendations made as a result of an evaluation shall be submitted in writing to the responsible manager for action. The responsible manager shall be a person who has the authority to resolve deficiencies or discrepancies and take action.

2.11.3 The executive manager shall decide upon the frequency, format, and structure of internal management evaluation activities.

2.12 Recording.

2.12.1 The operator shall maintain accurate, complete, and readily accessible records documenting the results of its quality assurance programme. Records are essential data that enable an operation to analyse and determine the root causes of non-compliance so that areas of non-compliance can be identified and addressed.

2.12.2 The following records shall be retained for a period of 5 years:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Special evaluation reports, including trends or other reasons associated with scheduling a special evaluation;

(d) Responses to findings or concerns contained in the reports;

(e) Corrective action plans and reports submitted in response to findings;

(f) Follow-up and closure reports; and

(g) Management evaluation reports.

2.12.3 An operator shall maintain and secure the records on its premises.

2.12.4 All records shall be made available to the Authority for review.

2.12.5 Proprietary information shall be protected in accordance with applicable laws and regulations.

3.0 Quality Assurance Responsibility for Contractors

3.1 Contractors.

3.1.1 An operator may decide to contract certain functions to external organisations for the provision of services related to areas such as:

(a) Ground de-icing/anti-icing;

(b) Ground handling;

(c) Maintenance;

(d) Flight support (including performance calculations, flight planning, navigation database, and dispatch);

(e) Training; and

(f) Manual preparation.

3.1.2 The ultimate responsibility for the product or service provided by the subcontractor shall remain with the operator. A written agreement shall exist between the operator and the contractor clearly defining the safety-related services and quality to be provided. The contractor's safety-related activities relevant to the agreement shall be included in the operator's quality assurance programme.

3.1.3 The operator shall ensure that the subcontractor has the necessary authorisation or approval when required and the resources and competent personnel to undertake the task.

4.0 Quality-Related Briefings and Training

4.1 General.

4.1.1 An operator shall establish effective, well-planned, well-resourced, quality-related briefings for all personnel.

4.1.2 Those responsible for managing the quality system shall receive training covering:

(a) An introduction to the concept of the quality system;

(b) Quality management;

(c) The concept of quality assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Reporting and recording; and

(g) The way in which the quality system functions in the operation.

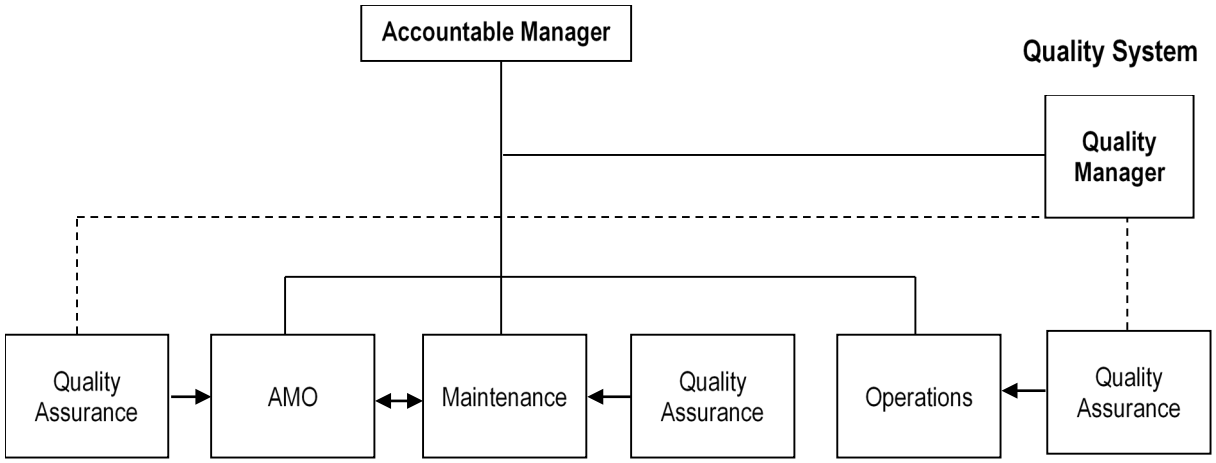
4.1.3 Time shall be provided to train every person involved in quality management and to brief those not responsible for managing the quality system. The allocation of time and resources may be governed by the size and complexity of the operation.

4.2 Sources of Training.

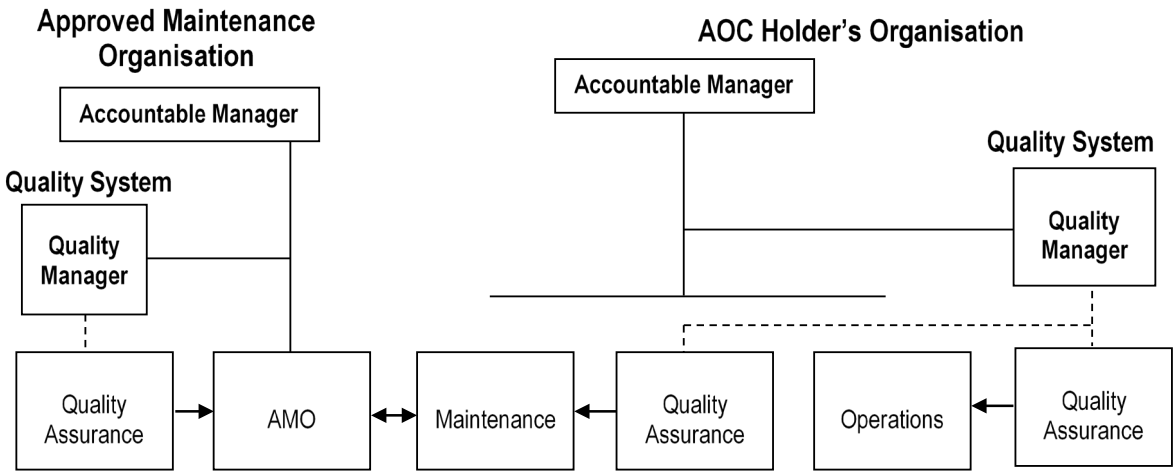
4.2.1 Quality management courses are available from the various National or International Standards Institutions, and an operator may consider whether to offer such courses to those likely to be involved in the management of quality systems. An operator with sufficient and appropriately qualified personnel may consider conducting in-house training.

(b) The following diagrams illustrate two typical examples of operator quality organisations.

(1) A quality system within the AOC holder's organisation when the AOC holder is also an AMO certificated under Part 6 of these regulations.



(2) Quality systems related to an AOC holder's organisation where aircraft maintenance is contracted out to an AMO that is not integrated with the AOC holder.



IS 9.3.2.5 RETENTION OF RECORDS

(a) An operator shall ensure that the following information or documentation is retained for the periods shown in the table below:

Table of Record Retention

Flight Crew Records	Retention Period
Flight, duty, and rest time	2 years
Licence and medical certificate	Until 12 months after the flight crew member has left the employ of the operator
Ground and flight training (all types)	Until 12 months after the flight crew member has left the employ of the operator
Route and aerodrome/heliport qualification training	Until 12 months after the flight crew member has left the employ of the operator
Dangerous goods training	Until 12 months after the flight crew member has left the employ of the operator
Security training	Until 12 months after the flight crew member has left the employ of the operator
Proficiency and qualification checks (all types)	Until 12 months after the flight crew member has left the employ of the operator
Cabin Crew Records	
Flight, duty, and rest time	2 years
Licence, if applicable	Until 12 months after the cabin crew member has left the employ of the operator
Ground and flight training (all types) and qualification checks	Until 12 months after the cabin crew member has left the employ of the operator
Dangerous goods training	Until 12 months after the cabin crew member has left the employ of the operator
Security training	Until 12 months after the cabin crew member has left the employ of the operator
Competency checks	Until 12 months after the cabin crew member has left the employ of the operator
Other AOC Holder Personnel Records	
Training/qualification of other personnel for whom an approved training programme is required in these regulations	Until 12 months after the employee has left the employ of the operator
Licence, if required, and medical certificate, if required	Until 12 months after the employee has left the employ of the operator
Proficiency or competency checks, if required	Until 12 months after the employee has left the employ of the operator
Flight Preparation Forms	
Completed load manifest	3 months after completion of the flight
Mass and balance reports	3 months after completion of the flight
Dispatch releases	3 months after completion of the flight
Flight plans	3 months after completion of the flight

Passenger manifests	3 months after completion of the flight
Weather reports	3 months after completion of the flight
Flight Recorder Records	
Cockpit voice recordings	Preserved after an accident or incident for 60 days, or longer if requested by the Authority
Flight data recordings	Preserved after an accident or incident for 60 days, or longer if requested by the Authority
Aircraft Technical Log	
Journey records section	2 years
Continuing airworthiness records section	2 years
Aircraft Continuing Airworthiness Records	
Total time in service (hours, calendar time, and cycles, as appropriate) of the aircraft and all life-limited parts	3 months after the unit to which they refer has been permanently withdrawn from service
Current status of compliance with all mandatory continuing airworthiness information	3 months after the unit to which they refer has been permanently withdrawn from service
Appropriate details of modifications and repairs to the aircraft and aeronautical products	3 months after the unit to which they refer has been permanently withdrawn from service
Total time in service (hours, calendar time, and cycles, as appropriate) since the last overhaul of the aircraft or aeronautical products subject to a mandatory overhaul life	3 months after the unit to which they refer has been permanently withdrawn from service
The detailed continuing airworthiness records to show all requirements for a maintenance release have been met	1 year after signing of the maintenance release
Other Records	
Operational flight plan	3 months after completion of the flight
Quality system records	5 years
Dangerous goods transport document	6 months after completion of the flight
Dangerous goods acceptance checklist	6 months after completion of the flight
Records on cosmic and solar radiation dosage, if the AOC holder operates aircraft that fly above 15 000 m (49 000 ft)	Until 12 months after the crew member has left the employ of the AOC holder

Note: See 9.4.1.5 of this part for details of the journey records section and 9.5.1.8 of this part for details of the continuing airworthiness records section of the aircraft technical log.

IS 9.3.2.8 AIRCRAFT TECHNICAL LOG

(a) The following are two examples of an aircraft technical log:

Name of the operator:[1]	Flight log:[2]	Name of PIC:	Registration:	Sheet no.:[3]
Address of the operator:	PIC's signature:[4]	Name and duty of other crew member(s):	Aircraft type:	Date:

FLIGHT[5]				CHECK	BLOCK TIME			AIRBORNE TIME			LOAD		FUEL ON BOARD[6]		
Nature of Flight[7]	From	To	No. of Ldgs.[8]	Flight Prep.[9]	Off	On	Time	Take-Off	Ldg.	Time	No. of Pax/Cargo (kg/lbs)	Take-Off Mass (kg/lbs)	Uplift	Take-Off[9] (ltrs/kg/lbs)	Ldg:

FLIGHT DATA **BLOCK TIME** REPORT			INCIDENTS/OCCURRENCES/OBSERVATIONS REPORT/DEFECTS NOTED[10]
	Block Time	Landings	State type of report: Operation/Technical/Other[11] Also note any de-/anti-icing as instructed[12]
Total per day			
Total previous report			
Total to report			

FLIGHT DATA **FLIGHT TIME** REPORT			RETURN TO SERVICE	ACTIONS TAKEN[13]
	Flight Time	Next Maintenance Due	Name of certifying staff and applicable regulations	
Total this sheet		Hours	Certifies that the work specified, except as otherwise specified, was carried out in accordance with applicable regulations and that, with respect to that work, the aircraft/aeronautical product is considered ready for return to service.	
Total from previous sheet		Landings	Signature	
Total to report		Date		

1. *The operator's name and address shall be preprinted or printed by hand.*
2. *The flight log shall be filled for:*
   - *Each day*
   - *Each flight crew.*
3. *The sheet number (e.g., yy-nn) shall be preprinted or printed by hand. All sheets shall be identifiable and numbered according to a continuous system that offers the same security when hand printed as when preprinted.*
4. *The PIC's signature states that everything on this sheet is correct.*
5. *For flights from A to A, a summary entry may be made. For all other flights, such as from A to B, an entry shall be made for each flight.*
6. *Total fuel on board (state the units unless preprinted).*
7. *The nature of the flight, such as private, commercial, technical, training, sailplane towing, etc., shall be entered.*
8. *Number of landings, if summary entry.*
9. *Flight preparation according to the OM (PIC's initials) shall state that:*
   - *Mass and balance are within limit.*
   - *Pre-flight check is completed.*
   - *Technical status is checked and aeroplane is accepted by the PIC.*
   - *Passenger manifest/documentation is performed.*
10. *Incidents/Occurrences/Observations Report/Defects Noted (Operation, Technical, Others):*
    - *If no report needs to be made, state "-NIL-."*
    - *If a report must be made, state the type of report.*
11. *Each observation shall be numbered sequentially for each log sheet.*
12. *If de-icing or anti-icing has been applied, state the time and the amount and type of fluid applied or other action taken (e.g., mechanical removal of snow or ice); if oil has been filled, state the time and amount.*
13. *Use the same number as the corresponding observation to link the report and response.*

Address of Operator:	Date:	**CREW**	**LOAD**	**OIL**	**GROUND DEICING**	**Sheet Number 00000001**
	Aeroplane Type: Registration:	Name of Commander: _____ Name and duty of crew member _____	No. of Pax: _____ Mass (kg/lbs) Cargo:_____ Take-off:_____	Engine 1 / Engine 2 Refilled: _____/_____ Total: _____/_____	Type of fluid: _____ Mixture: _____ **Time of Deicing** Commenced: _____ Finished: _____	Last release: _____ Total aeroplane hours: _____ Total aeroplane landing: _____ **Next Maintenance Due:** In hours: _____ In landing: _____

FLIGHT				**PRE-FLIGHT**	**BLOCK TIME**		**AIRBORNE TIME**			**FUEL ON BOARD (LTRS/KG/LBS)**				
Flight Nb:	From:	To:	No. of Ldg:	Name/Signature:	Off:	On:	Time:	Take-off:	Ldg:	Time:	Uplift:	Take-off:	Ldg:	

Defects	**Signature**	**Actions Taken**	**AMO Release to Service**
00000001-1		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
00000001-2		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
00000001-3		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
MEL DEFERRED DEFECT Item MEL Open Date Category Limit Date _____ _____	Captain's Acceptance	Daily Check/Maintenance done:	Agreement number: Date: Place: Time: Name: Signature:

JAR OPS 1: Attachment 1 to ACJ to Appendix 1 to JAR-OPS 1.005(a)

IS 9.3.2.11 FLIGHT SAFETY DOCUMENTS SYSTEM

(a) The following outline addresses the major elements of an AOC holder's flight safety documents system development process, with the aim of ensuring compliance with these regulations.

1.0 Organisation

1.1 A flight safety documents system shall be organised according to criteria that ensure easy access to information required for flight and ground operations contained in the various operational documents composing the system and that facilitate management of the distribution and revision of operational documents.

1.2 Information contained in a flight safety documents system shall be grouped according to the importance and use of the information, as follows:

1.2.1 Time-critical information (i.e., information that can jeopardise the safety of the operation if not immediately available);

1.2.2 Time-sensitive information (i.e., information that can affect the level of safety or delay the operation if not available in a short time period);

1.2.3 Frequently used information;

1.2.4 Reference information (i.e., information that is required for the operation but does not fall under 1.2.2 and 1.2.3 of this IS); and

1.2.5 Information that can be grouped based on the phase of operation in which it is used.

1.3 Time-critical information shall be placed early and prominently in the flight safety documents system.

1.4 Time-critical information, time-sensitive information, and frequently used information shall be placed in cards and quick-reference guides.

2.0 Validation

A flight safety documents system shall be validated before deployment, under realistic conditions. Validation shall involve the critical aspects of the information use, in order to verify its effectiveness. Interactions that can occur among all groups during operations shall also be included in the validation process.

3.0 Design

3.1 A flight safety documents system shall maintain consistency in terminology and in the use of standard terms for common items and actions.

3.2 Operational documents shall include a glossary of terms, abbreviations, and their standard definitions, updated on a regular basis to ensure access to the most recent terminology. All significant terms and abbreviations included in the flight documents system shall be defined.

3.3 A flight safety documents system shall ensure standardisation across document types, including writing style, terminology, use of graphics and symbols, and formatting. This includes a consistent location for specific types of information and the consistent use of units of measurement and codes.

3.4 A flight safety documents system shall include a master index to locate, in a timely manner, information included in more than one operational document.

Note: The master index shall be placed in the front of each document and shall consist of no more than three levels of indexing. Pages containing abnormal and emergency information shall be tabbed for direct access.

3.5 A flight safety documents system shall comply with the requirements of the operator's quality system, if applicable.

4.0 Deployment

Operators shall monitor deployment of the flight safety documents system to ensure appropriate and realistic use of the documents based on the characteristics of the operational environment and in a way that is both operationally relevant and beneficial to operational personnel. This monitoring shall include a formal feedback system for obtaining input from operational personnel.

5.0 Amendment

5.1 Operators shall develop an information gathering, review, distribution, and revision control system to process information and data obtained from all sources relevant to the type of operation conducted, including the State of the Operator, the State of Design, the State of Registry, manufacturers, and equipment vendors.

Note: Manufacturers provide information for the operation of specific aircraft that emphasises the aircraft systems and procedures under conditions that may not fully match the requirements of operators. Operators shall ensure that such information meets their specific needs and those of the Authority.

5.2 Operators shall develop an information gathering, review, and distribution system to process information resulting from changes that originate within the operator, including:

5.2.1 Changes resulting from the installation of new equipment;

5.2.2 Changes in response to operating experience;

5.2.3 Changes in an operator's policies and procedures;

5.2.4 Changes in an operator's certificate; and

5.2.5 Changes for purposes of maintaining cross-fleet standardisation.

Note: Operators shall ensure that crew coordination philosophy, policies, and procedures are specific to their operation.

5.3 A flight safety documents system shall be reviewed:

5.3.1 On a regular basis at least once a year;

5.3.2 After major events (e.g., mergers, acquisitions, rapid growth, downsizing);

5.3.3 After technological changes (e.g., introduction of new equipment); and

5.3.4 After changes in safety regulations.

5.4 Operators shall develop methods for communicating new information. The specific methods shall be responsive to the degree of communication urgency.

Note: As frequent changes diminish the importance of new or modified procedures, it is desirable to minimise changes to the flight safety documents system.

5.5 New information shall be reviewed and validated, considering its effects on the entire flight safety documents system.

5.6 The method for communicating new information shall be complemented by a tracking system to ensure currency by operational personnel. The tracking system shall include a procedure to verify that operational personnel have the most recent updates.

IS 9.3.3.2 DRY LEASING OF FOREIGN-REGISTERED AIRCRAFT

(a) An AOC holder may dry lease an aircraft for the purpose of commercial air transportation from any AOC holder of a State that is signatory to the Chicago Convention, provided that the following

conditions are met:

(1) The aircraft carries an appropriate certificate of airworthiness issued by the State of Registry in accordance with ICAO Annex 8 and meets the registration and identification requirements of that State of Registry;

(2) The aircraft is of a type design that complies with all of the requirements that would be applicable to that aircraft were it registered in Curaçao, including the requirements that shall be met for issuance of a Curaçao standard certificate of airworthiness (including type design conformity; condition for safe operation; and the noise, fuel venting, and engine emission requirements);

(3) The aircraft is maintained according to an approved maintenance programme; and

(4) The aircraft is operated by Curaçao-licensed airmen, with additional licence authorisation by the State of Registry, employed by the AOC holder.

(b) Each AOC holder shall provide the Authority with a copy of the dry lease to be executed.

(c) Operational control of any dry leased aircraft rests with the AOC holder operating that aircraft.

(d) The Authority will list the dry leased aircraft on the lessor AOC holder's operations specifications.

(e) An AOC holder engaged in dry leasing aircraft shall make the dry lease agreement explicit concerning the maintenance programme and MEL to be followed during the term of the dry lease.

IS 9.3.3.3 AIRCRAFT INTERCHANGE

(a) Before operating under an interchange agreement, each AOC holder shall show that:

(1) The procedures for the interchange operation conform with safe operating practices;

(2) Required crew members and FOOs meet the approved training requirements for the aircraft and equipment to be used and are familiar with the communications and dispatch procedures to be used;

(3) Maintenance personnel meet training requirements for the aircraft and equipment and are familiar with the maintenance procedures to be used;

(4) Flight crew members and FOOs meet appropriate route and aerodrome qualifications;

(5) The aircraft to be operated are essentially similar to the aircraft of the AOC holder with whom the interchange is effected; and

(6) The arrangement of flight instruments and controls that are critical to safety are essentially similar to the aircraft of the AOC holder with whom the interchange is effected, unless the Authority determines that the AOC holder has adequate training programmes to ensure that any potentially hazardous dissimilarities are safely overcome by flight crew familiarisation.

(b) Each AOC holder conducting an interchange agreement shall include the pertinent provisions and procedures of the agreement in its manuals.

(c) The AOC holder shall amend its operations specifications to reflect an interchange agreement.

(d) The AOC holder shall comply with the applicable regulations of the State of Registry of an aircraft involved in an interchange agreement while it has operational control of that aircraft.

IS 9.3.3.4 WET LEASING

(a) Each AOC holder shall provide the Authority with a copy of the wet lease to be executed.

(b) The Authority will determine which party to a wet lease agreement has operational control, considering the extent and control of certain operational functions, such as:

(1) Initiating and terminating flights;

(2) Maintenance and servicing of aircraft;

(3) Scheduling crew members;

(4) Paying crew members; and

(5) Training crew members.

(c) Each AOC holder engaged in a wet leasing arrangement shall amend its operations specifications to contain the following information:

(1) The names of the parties to the agreement and the duration of the agreement;

(2) The make, model, and series of each aircraft involved in the agreement;

(3) The type of operation;

(4) The expiration date of the lease agreement;

(5) A statement specifying the party deemed to have operational control; and

(6) Any other item, condition, or limitation the Authority determines necessary.

IS 9.3.3.5 EMERGENCY EVACUATION DEMONSTRATION

(a) Each AOC holder shall conduct a partial emergency evacuation and ditching evacuation demonstration, observed by the Authority, that demonstrates the effectiveness of the AOC holder's crew member emergency training and evacuation procedures.

(b) Prior to conducting an emergency evacuation demonstration, the AOC holder shall apply for and obtain approval from the Authority.

(c) Cabin crew members used in the emergency evacuation demonstration shall:

(1) Be selected at random by the Authority;

(2) Have completed the AOC holder's approved training programme for the type and model of aircraft; and

(3) Have passed the drills and competence check on the emergency equipment and procedures.

(d) To conduct the partial emergency evacuation demonstration, the AOC holder's assigned cabin crew members shall, using the AOC holder's line operating procedures:

(1) Demonstrate the opening of 50 per cent of the required floor-level emergency exits and 50 per cent of the required non-floor-level emergency exits (the opening of which by a cabin crew member is defined as an emergency evacuation duty) and deployment of 50 per cent of the exit slides, selected by the Authority; and

(2) Prepare for use those exits and slides within 15 seconds.

(e) To conduct the ditching evacuation demonstration, the AOC holder's assigned cabin crew members shall:

(1) Demonstrate their knowledge and use of each item of required emergency equipment;

(2) Prepare the cabin for ditching within 6 minutes after the intention to ditch is announced;

(3) Remove each life raft from storage (one life raft, selected by the Authority, shall be launched and properly inflated or one slide life raft shall be properly inflated); and

(4) Enter the raft, which shall include all required emergency equipment, and shall completely set it up for extended occupancy.

IS 9.3.3.6 DEMONSTRATION FLIGHTS

(a) Each AOC holder shall conduct demonstration flights for each type of aircraft, including those aircraft materially altered in design, and for each type of operation the AOC holder intends to conduct.

(b) Each AOC holder shall conduct demonstration flights for at least the following:

(1) Initial aeroplane proving tests of newly manufactured aircraft or aircraft not yet demonstrated for use in a type of operation under this part:

(i) A minimum of 70 hours shall be flown, in addition to the aeroplane certification tests, including a representative number of flights into en route aerodromes.

(ii) The Authority may reduce the requirement of at least 70 hours of proving tests if the Authority determines that a satisfactory level of proficiency has been demonstrated to justify the reduction. This requirement applies to either new aircraft manufactured in Curaçao or to any foreign-manufactured aircraft that a Curaçao certificate holder has not previously operated.

(iii) Ten (10) hours shall be flown at night and may not be reduced.

(2) Type of aircraft and type of operations:

(i) For each type of aircraft, at least but not limited to 35 hours of demonstration flights acceptable to the Authority shall be flown for each type of operation the AOC holder intends to conduct, including a representative number of flights into en route aerodromes.

(3) Materially altered aircraft:

(i) For each type of aircraft that is materially altered in design, at least 30 hours of demonstration flights acceptable to the Authority shall be flown for each type of operation the AOC holder intends to conduct with that aircraft, including a representative number of flights into en route aerodromes.

(c) No person may carry passengers in an aircraft during demonstration flights, except for those persons necessary to make the demonstration flight and those designated by the Authority.

(d) For AOC holders of aircraft of less than 5,700 kg, the necessity and extent of demonstration shall be at the option of the Authority.

IS 9.4.1.2(G) OPERATIONS MANUAL – GENERAL

(a) The general part or section of the OM shall contain at least the following:

1.0 Administration and Control of the Operations Manual

1.1 Introduction.

1.1.1 A statement that the manual complies with all applicable rules and regulations and with the specific approvals, conditions, and limitations of the applicable air operator operations specifications.

1.1.2 A statement that the manual contains operational instructions that are to be complied with by the relevant personnel in the performance of their duties.

1.1.3 A list and brief description of the various OM parts and their contents, applicability, and use.

1.1.4 Explanations and definitions of terms and words used in the manual.

1.2 System of Amendment and Revision.

1.2.1 A description of who is responsible for the issuance and insertion of amendments and revisions.

1.2.2 A record of amendments and revisions with insertion dates and effective dates.

1.2.3 A statement that hand-written amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.

1.2.4 A description of the system for the annotation of pages and their effective dates.

1.2.5 A list of effective pages and their effective dates.

1.2.6 Annotation of changes (on text pages and, as practicable, on charts and diagrams).

1.2.7 A system for recording temporary revisions.

1.2.8 A description of the distribution system for the manuals, amendments, and revisions.

1.2.9 A statement of who is responsible for notifying the Authority of proposed changes and working with the Authority on changes requiring Authority approval.

2.0 Organisation and Responsibilities

2.1 Organisational Structure.

2.1.1 A description of the organisational structure, including the general company organisation and the operations department organisation.

2.1.2 The relationship between the operations department and the other departments of the organisation.

2.1.3 In particular, the subordination and reporting lines of all divisions, departments, etc., that pertain to the safety of flight operations.

2.1.4 Instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations.

2.2 Responsible Managers.

2.2.1 The name of each manager responsible for flight operations, the maintenance system, crew training, and ground operations.

2.2.2 A description of the function and responsibilities of each manager.

2.3 Authority, Duties, and Responsibilities of Operations Management Personnel.

2.3.1 A description of the authority, duties, and responsibilities of operations management personnel pertaining to the safety of flight operations and compliance with applicable regulations.

2.4 Authority, Duties, and Responsibilities of a PIC.

2.4.1 A description of the authority, duties, and responsibilities of the PIC.

2.5 Authority, Duties, and Responsibilities of Crew Members Other Than the PIC.

2.5.1 A description of the authority, duties, and responsibilities of all required crew members.

3.0 Operational Control and Supervision

3.1 Supervision of the Operation by the AOC Holder.

3.1.1 A description of the system for supervision of the operation by the AOC holder. This description shall show how the safety of flight operations and the qualifications of personnel involved in all such operations are supervised and monitored. In particular, the procedures related to the following items shall be described:

(a) Specifications for the operational flight plan;

(b) Competence of operations personnel; and

(c) Control, analysis, and storage of records; flight documents; additional information; and safety-related data.

3.2 System of Promulgation of Additional Operational Instructions and Information.

3.2.1 A description of any system for promulgating information that may be of an operational nature but is supplementary to the information in the OM, including the applicability of this information and the responsibilities for its promulgation.

3.3 Safety Management System.

3.3.1 A description of the main aspects of the SMS programme required by 1.6 of these regulations, including:

(a) Safety policy: general expectations;

(b) Safety risk management: general expectations;

(c) Safety assurance: general expectations; and

(d) Safety promotion: general expectations.

3.4 Operational Control.

3.4.1 A description of the objectives, procedures, and responsibilities necessary to exercise operational control with respect to flight safety.

4.0 Quality System

4.1 A description of the quality system adopted.

5.0 Flight Crew

5.1 Crew Composition.

5.1.1 An explanation of the method for determining crew composition, taking into account the following:

(a) Experience (total and type), recency, and qualification of the crew members;

(b) The designation of the PIC and, if required by the duration of the flight, the procedures for the relief of the PIC or other members of the flight crew; and

(c) The flight crew for each type of operation, including the designation of the succession of command.

5.2 PIC Designation.

5.2.1 The rules applicable to the designation of a PIC.

5.3 Crew Incapacitation.

5.3.1 Instructions on the succession of command in the event of flight crew incapacitation.

6.0 Flight Crew, Cabin Crew, Flight Operations Officer/Flight Dispatcher, and Other Operations Personnel Qualifications

6.1 Qualifications.

6.1.1 A description of the required licence, rating(s), qualification/competency (e.g., for routes and aerodromes), experience, training, checking, and recency of experience for operations personnel to conduct their duties. Consideration shall be given to the aircraft type, type of operation, and composition of the crew.

6.2 Flight Crew.

6.2.1 Operation on more than one type or variant.

6.3 Cabin Crew.

6.3.1 Operation on more than one type or variant.

6.4 Flight Operations Officer/Flight Dispatcher.

6.5 Other Operations Personnel.

7.0 Fatigue Management

7.1 Flight Time, Flight Duty Periods, Duty Period Limitations, and Rest Requirements.

7.1.1 Flight crew;

7.1.2 Cabin crew; and

7.1.3 FOO/flight dispatcher.

7.2 FRMS (if authorised by the Authority).

8.0 Crew Health

8.1 Crew Health Precautions.

8.1.1 The relevant regulations and guidance for crew members concerning health, including:

(a) Alcohol and other intoxicating liquor;

(b) Narcotics;

(c) Drugs;

(d) Sleeping tablets;

(e) Pharmaceutical preparations;

(f) Immunisations;

(g) Scuba diving;

(h) Blood donation;

(i) Meal precautions prior to and during flight;

(j) Sleep and rest; and

(k) Surgical operations.

9.0 Operating Procedures

9.1 Flight Preparation Instructions.

9.1.1 As applicable to the operation:

(a) Criteria for determining the usability of aerodromes.

(b) The method for determining minimum flight altitudes.

(c) The method for determining aerodrome operating minima.

(d) En route operating minima for VFR flights.

(1) A description of en route operating minima for VFR flights or VFR portions of a flight and, where single-engine aircraft are used, instructions for route selection with respect to the availability of surfaces that permit a safe forced landing.

(e) Presentation and application of aerodrome and en route operating minima.

(f) Interpretation of meteorological information.

(1) Explanatory material on the decoding of meteorological forecasts and meteorological reports relevant to the area of operations, including the interpretation of conditional expressions.

9.1.2 Determination of the quantities of fuel, oil, and water-methanol carried.

(a) This section shall include the specific instructions and methods by which the quantities of fuel, oil, and water-methanol to be carried are determined and monitored in flight. It shall also include instructions on the measurement and distribution of the fluid carried on board. Such instructions shall take account of all circumstances likely to be encountered on the flight, including the possibility of in-flight replanning, the failure of one or more of the aircraft's powerplants, and possible loss of pressurisation. The system for maintaining fuel and oil records shall also be described.

9.1.3 The general principles of mass and centre of gravity, including:

(a) The policy for using standard and/or actual masses;

(b) The method for determining the applicable passenger, baggage, and cargo mass;

(c) The applicable passenger and baggage masses for various types of operations and aircraft;

(d) General instruction and information necessary for verification of the various types of mass and balance documentation in use;

(e) Last-minute changes to procedures;

(f) Seating policy and procedures; and

(g) A list of documents, forms, and additional information to be carried during a flight.

9.2 Ground Handling Arrangements and Procedures.

9.2.1 Fuelling procedures.

(a) A description of fuelling procedures, including:

(1) Safety precautions during refuelling and defuelling, including when an auxiliary power unit is in operation or when a turbine engine is running and, if applicable, when the propeller brakes are on;

(2) Refuelling and defuelling when passengers are embarking, on board, or disembarking;

(3) Precautions to be taken to avoid mixing fuels; and

(4) A method to ensure the required amount of fuel is loaded.

9.2.2 Aircraft, passenger, and cargo handling procedures related to safety.

(a) A description of the handling procedures to be used when allocating seats, embarking and disembarking passengers, and loading and unloading the aircraft. Further procedures, aimed at achieving safety while the aircraft is on the ramp, shall also be given. Handling procedures shall include:

(1) Sick passengers and persons with reduced mobility;

(2) The permissible size and weight of hand baggage;

(3) The loading and securing of items in the aircraft;

(4) Special loads and classification of load compartments (e.g., dangerous goods, live animals);

(5) The positioning of ground equipment;

(6) The operation of aircraft doors;

(7) Safety on the ramp, including fire prevention, blast, and suction areas;

(8) Start-up and ramp departure and arrival procedures;

(9) Servicing of aircraft;

(10) Documents and forms; and

(11) Multiple occupancy of aircraft seats.

9.3 Procedures for the refusal of embarkation.

9.3.1 Procedures to ensure that persons who appear to be intoxicated or who demonstrate by manner or physical indications that they are under the influence of alcohol or drugs, except medical patients under proper care, are refused embarkation.

9.4 De-icing and anti-icing on the ground.

9.4.1 Instructions for the conduct and control of ground de-icing/anti-icing operations. A description of the de-icing and anti-icing policy and procedures for aircraft on the ground. These shall include descriptions of the types and effects of icing and other contaminants on aircraft while stationary, during ground movements, and during take-off. In addition, a description of the fluid types used shall be given, including:

(a) Proprietary or commercial names;

(b) Characteristics;

(c) Effects on aircraft performance; and

(d) Precautions during usage.

9.5 Helicopter refuelling procedures.

9.5.1 A description of procedures for helicopter refuelling, including:

(a) The doors on the refuelling side shall remain closed;

(b) The door on the non-refuelling side shall remain open;

(c) Firefighting facilities of the appropriate scale shall be immediately available in the case of a fire;

(d) The presence of fuel vapour, if detected, shall cease the refuelling process;

(e) The ground or deck area beneath the exits intended for emergency evacuation shall be kept clear;

(f) Seat belts shall be unfastened to facilitate rapid egress; and

(g) With rotors turning, only ongoing passengers shall remain on board.

9.6 Flight Procedures and Flight Navigation Equipment.

9.6.1 A description of flight procedures, including:

(a) SOPs for each phase of flight;

(b) Instructions on the use of normal checklists and the timing of their use;

(c) Departure contingency procedures;

(d) Instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude call-outs;

(e) Instructions on the use of auto and autothrottles in IMC;

(f) Instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved;

(g) Departure and approach briefings;

(h) Procedures for familiarisation with areas, routes, and aerodromes;

(i) Stabilised approach procedure;

(j) Limitation on high rates of descent near the surface;

(k) Conditions required to commence or to continue an instrument approach;

(l) Instructions for the conduct of precision and non-precision instrument approach procedures;

(m) The allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations;

(n) The circumstances in which a radio listening watch is to be maintained; and

(o) Instructions and training requirements for the use of HUD and EVS equipment, as applicable.

9.6.2 Navigation equipment.

(a) A list of the navigation equipment to be carried, including any requirements relating to operations where PBN is prescribed.

9.6.3 Navigation procedures.

(a) A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration shall be given to:

(1) Standard navigation procedures, including policy for carrying out independent cross-checks of keyboard entries where these affect the flight path to be followed by the aircraft;

(2) In-flight replanning;

(3) Procedures in the event of system degradation;

(4) Where relevant to the operations, long-range navigation procedures, the engine failure procedure for EDTO, and the nomination and utilisation of diversion aerodromes;

(5) Instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of the ground proximity warning system;

(6) Policy, instructions, procedures, and training requirements for the avoidance of collisions and the use of the ACAS;

(7) Information and instructions relating to the interception of civil aircraft, including:

(i) Procedures, as prescribed in IS 8.8.1.28 of these regulations, for PICs of intercepted aircraft; and

(ii) Visual signals for use by intercepting and intercepted aircraft, as contained in IS 8.8.1.28 of these regulations; and

(b) For aeroplanes intended to be operated above 15,000m (49.000ft):

(1) Information that will enable the pilot to determine the best course of action to take in the event of exposure to solar cosmic radiation; and

(2) Procedures in the event that a decision to descend is taken, covering:

(i) The necessity of giving the appropriate ATS unit prior warning of the situation and of obtaining a provisional descent clearance; and

(ii) The action to be taken in the event that communication with an ATS unit cannot be established or is interrupted.

9.6.4 Policy and procedures for in-flight fuel management.

9.6.5 Adverse and potentially hazardous atmospheric conditions.

9.6.6 Procedures for operating in, and/or avoiding, potentially hazardous atmospheric conditions, including:

(a) Thunderstorms;

(b) Icing conditions;

(c) Turbulence;

(d) Wind shear;

(e) Jet stream;

(f) Volcanic ash clouds;

(g) Heavy precipitation;

(h) Sand storms;

(i) Mountain waves; and

(j) Significant temperature inversions.

9.6.7 Operating restrictions.

(a) Cold weather operations;

(b) Take-off and landing in turbulence;

(c) Low-level wind shear operations;

(d) Crosswind operations (including tailwind components);

(e) High-temperature operations; and

(f) High-altitude operations.

9.6.8 Incapacitation of crew members.

(a) Procedures to be followed in the event of the incapacitation of crew members in flight. Examples of the types of incapacitation and the means for recognising them shall be included.

9.6.9 Cabin safety requirements.

(a) Procedures covering:

(1) Cabin preparation for flight; in-flight requirements; and preparation for landing, including procedures for securing cabin and galleys;

(2) Procedures to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aircraft;

(3) Procedures to be followed during passenger embarkation and disembarkation;

(4) Procedures for fuelling with passengers on board, embarking, or disembarking;

(5) Smoking on board; and

(6) The use of portable electronic equipment and cellular telephones.

9.6.10 Passenger briefing procedures.

(a) The contents, means, and timing of passenger briefing.

9.6.11 Procedures for use of cosmic or solar radiation detection equipment – aeroplanes.

(a) Procedures for the use of cosmic or solar radiation detection equipment and for recording its readings, including actions to be taken in the event that limit values specified in the OM are exceeded. In addition, the procedures, including ATC procedures, to be followed in the event that a decision to descend or reroute is taken.

9.7 All-Weather Operations.

9.8 Use of the Minimum Equipment List and Configuration Deviation List.

9.9 Non-Revenue Flights.

9.9.1 Procedures and limitations for:

(a) Training flights;

(b) Test flights;

(c) Delivery flights;

(d) Ferry flights;

(e) Demonstration flights; and

(f) Positioning flights, including the type of persons who may be carried on such flights.

9.10 Oxygen Requirements.

9.10.1 An explanation of the conditions under which oxygen shall be provided and used.

10.0 Dangerous Goods and Weapons

10.1 Transport of Dangerous Goods.

10.1.1 Information, instructions, and general guidance on the transport of dangerous goods, including:

(a) The AOC holder's policy on the transport of dangerous goods;

(b) Guidance on the requirements for acceptance, labelling, handling, stowage, and segregation of dangerous goods;

(c) Procedures and actions to be taken for responding to emergency situations involving dangerous goods;

(d) Duties of all personnel involved; and

(e) Instructions on the carriage by the AOC holder's employees.

10.2 Transport of Weapons.

10.2.1 The conditions under which weapons, munitions of war, and sporting weapons may be carried.

11.0 Security

11.1 Security Policies and Procedures.

11.1.1 A description of security policies and procedures for handling and reporting crime (e.g., unlawful interference, sabotage, bomb threats, and hijacking) on board.

11.2 Security Instructions and Guidance.

11.2.1 Security instructions and guidance of a non-confidential nature that shall include the authority and responsibilities of operations personnel.

11.3 Preventive Security Measures and Training.

11.3.1 A description of preventive security measures and training.

Note: Parts of the security instructions and guidance may be kept confidential.

12.0 Handling of Accidents and Incidents

12.1 Procedures for the Handling, Notifying, and Reporting of Accidents and Incidents.

12.1.1 This section shall include:

(a) Definitions of accidents and incidents and the relevant responsibilities of all persons involved;

(b) Descriptions of the company departments, authorities, or other institutions that shall be notified in case of an accident or incident, and by which means and in what sequence;

(c) Special notification requirements in the event of an accident or incident when dangerous goods are being carried;

(d) A description of the requirements to report accidents and incidents;

(e) The forms used for reporting accidents and incidents and the procedure for submitting such forms to the Authority;

(f) If the AOC holder develops additional safety-related reporting procedures for its own internal use, a description of the applicability and related forms to be used; and

(g) Procedures for PICs who have observed an accident or incident.

13.0 Rules of the Air

13.1 Rules of the air, including:

13.1.1 Territorial application of the rules of the air;

13.1.2 The circumstances during which a radio listening watch shall be maintained;

13.1.3 ATC clearances, adherence to flight plan, and position reports;

13.1.4 The ground-air visual codes for use by survivors, description and use of signal aids; and

13.1.5 Distress and urgency signals.

IS 9.4.1.3 TRAINING MANUAL

(a) Each AOC holder and AOC applicant, as part of its OM, shall submit and maintain training programmes based on the following outline:

1.0 Training Syllabi and Checking Programmes

1.1 General Requirements.

1.1.1 Training syllabi and checking programmes for all operations personnel assigned to operational duties in connection with the preparation and/or conduct of a flight shall be

developed to meet the respective requirements of the Authority. An AOC holder may not use any person in, nor may any person serve in, a required crew member capacity or operational capacity unless that person meets the training and currency requirements established by the Authority for that respective position.

1.2 Flight Crew.

1.2.1 The training syllabi and checking programmes for flight crew members shall include:

(a) A written training programme acceptable to the Authority that provides for basic indoctrination, initial, transition, difference, and recurrent training, as appropriate, for flight crew members for each type of aircraft flown by that crew member; this written training programme shall include both normal and emergency procedures training applicable for each type of aircraft flown by the crew member;

(b) Adequate ground and flight training facilities and properly qualified instructors required to meet training objectives and needs;

(c) A current list of approved training materials, equipment, training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the AOC holder;

(d) An adequate number of ground and flight check personnel to ensure adequate training and checking of flight crew members; and

(e) A record system acceptable to the Authority to show compliance with appropriate training and currency requirements.

1.3 Cabin Crew.

1.3.1 The training syllabi and checking programmes for cabin crew members shall include:

(a) Basic initial ground training covering duties and responsibilities;

(b) Appropriate Authority rules and regulations;

(c) Appropriate portions of the AOC holder's OM;

(d) Appropriate emergency training, as required by the Authority and the AOC holder's OM;

(e) Appropriate flight training;

(f) Appropriate recurrent, transition, or difference training, as required, to maintain currency in any type and variance of aircraft the crew member may be required to work in;

(g) A current list of approved training materials, equipment, training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the AOC holder;

(h) An adequate number of ground check personnel and flight check personnel to ensure adequate training and checking of crew members; and

(i) A record system acceptable to the Authority to show compliance with all appropriate training and currency requirements.

1.4 All Crew Members.

1.4.1 A written training programme shall be developed for all crew members in the emergency procedures appropriate to each make and model of aircraft flown in or by the crew member. Areas shall include:

(a) Individual instruction in the use of on-board emergency equipment such as fire extinguishers, emergency breathing equipment, first aid equipment, emergency exits and evacuation slides, and the aircraft's oxygen system, including the use of portable emergency oxygen bottles. Flight crew members shall also practice using the emergency equipment designed to protect them in case of a flight deck fire or smoke;

(b) Instruction in potential emergencies such as rapid decompression, ditching, firefighting, aircraft evacuation, medical emergencies, hijacking, and disruptive passengers; and

(c) Scheduled recurrent training to meet Authority requirements.

1.5 All Operations Personnel.

1.5.1 The training syllabi and checking programmes for all operations personnel shall include:

(a) Training in the safe transportation and recognition of all dangerous goods permitted by the Authority to be shipped by air; training shall include the proper packaging, marking, labelling, and documentation of dangerous articles and magnetised materials;

(b) All appropriate security training required by the Authority; and

(c) A method of providing any required notification of an accident or incident involving dangerous goods.

1.6 Operations Personnel Other Than Crew Members.

1.6.1 For operations personnel other than crew members (e.g., FOO, handling personnel), a written training programme shall be developed that pertains to their respective duties. The training programme shall provide for initial, recurrent, differences, specialised, and any other training required by the Authority.

2.0 Procedures for Training and Checking

2.1 Proficiency Checking Procedures.

2.1.1 Procedures to be applied in the event that personnel do not achieve or maintain the required standards.

2.2 Procedures Involving the Simulation of Abnormal or Emergency Situations.

2.2.1 Procedures to ensure that abnormal or emergency situations requiring the application of part or all of the abnormal or emergency procedures, and simulation of IMC by artificial means, are not simulated during commercial air transportation flights.

3.0 Document Retention

3.1 Documentation to Be Stored and Storage Periods.

3.1.1 An AOC holder shall retain all documentation required by the Authority, or the Authority of another State in which the AOC holder is operating, for the time specified by the respective Authority or for the time period needed to show compliance with appropriate regulations or this OM, whichever is longer.

IS 9.4.1.4 AIRCRAFT OPERATING MANUAL

(a) Each AOC applicant and AOC holder shall submit and maintain an AOM as part of its OM, containing at least the following:

1.0 General Information and Units of Measurement

1.1 General information (e.g., aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and conversion tables.

2.0 Limitations

2.1 Certification and Operational Limitations.

2.1.1 A description of the applicable operational limitations, including:

(a) Certification status;

(b) Passenger seating configuration for each aircraft type, including a pictorial presentation;

(c) Types of operation that are approved (e.g., AMO/IMC/VFR, CAT II/III, flights in known icing conditions, etc.);

(d) Crew composition;

(e) Operation within mass and centre of gravity limitations;

(f) Speed limitations;

(g) Flight envelopes;

(h) Wind limits, including operations on contaminated runways;

(i) Performance limitations for applicable configurations;

(j) Runway slope;

(k) Limitations on wet or contaminated runways;

(l) Airframe contamination; and

(m) Post landing.

3.0 Procedures

3.1 Normal Procedures.

3.1.1 The normal procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists, and a statement covering the necessary coordination procedures between flight and cabin crew. The following normal procedures and duties shall be included:

(a) Pre-flight;

(b) Pre-departure and loading;

(c) Altimeter setting and checking;

(d) Taxi, take-off, and climb;

(e) Noise abatement;

(f) Cruise and descent;

(g) Approach, landing preparation, and briefing;

(h) VFR approach;

(i) Instrument approach;

(j) Visual approach and circling;

(k) Missed approach;

(l) Normal landing;

(m) Post landing; and

(n) Operation on wet and contaminated runways.

3.2 Flight Deck Procedures.

(a) Obtain a flight release;

(b) Initial flight deck preparation;

(c) SOPs;

(d) Flight deck discipline;

(e) Standard call-outs;

(f) Communications;

(g) Flight safety;

(h) Push-back and towing procedures;

(i) Taxi guidelines and ramp signals;

(j) Take-off and climbout procedures;

(k) Choice of runway;

(l) Take-off in limited visibility;

(m) Take-off in adverse weather;

(n) Use and limitations of weather radar;

(o) Use of landing lights;

(p) Monitoring of flight instruments;

(q) Power settings for take-off;

(r) Malfunctions during take-off;

(s) Rejected take-off decision;

(t) Climb, best angle, best rate;

(u) Sterile cockpit procedures;

(v) En route and holding procedures;

(w) Cruise control;

(x) Navigation logbook;

(y) Descent, approach, and landing procedures;

(z) Reporting of maintenance problems; and

(aa) How to obtain maintenance and service en route.

3.3 Abnormal and Emergency Procedures.

3.3.1 A listing of abnormal and emergency procedures assigned to crew members with appropriate checklists that include a system for use of the checklists and a statement covering the necessary coordination procedures between flight and cabin crew. The following abnormal and emergency procedures and duties shall be included:

(a) Crew incapacitation;

(b) Fire and smoke drills;

(c) Unpressurised and partially pressurised flight, as applicable;

(d) Exceeding of structural limits, such as overweight landing;

(e) Exceeding of cosmic radiation limits, as applicable;

(f) Lightning strikes;

(g) Distress communications and alerting of ATC to emergencies;

(h) Engine failure;

(i) System failures;

(j) Guidance for diversion in case of serious technical failure;

(k) Ground proximity warning;

(l) ACAS;

(m) Wind shear;

(n) Emergency landing/ditching;

(o) Aircraft evacuation;

(p) Fuel jettisoning precautions (as applicable) and overweight landing;

(q) General considerations and policy;

(r) Emergency procedures;

(s) Emergency descent;

(t) Low fuel;

(u) Dangerous goods incident or accident;

(v) Interception procedures;

(w) Emergency signal for cabin crew members;

(x) Communication procedures; and

(y) Radio listening watch.

4.0 Performance Data, Supplementary Performance Data, and Other Acceptable Performance Data

4.1 General.

4.1.1 Performance data shall be provided in a form in which it can be used without difficulty.

4.2 Performance Data.

4.2.1 Performance material that provides the necessary data to allow the flight crew to comply with the approved AFM performance requirements shall be included to allow the determination of:

(a) Take-off climb limits (mass, altitude, temperature);

(b) Take-off field length limits (dry, wet, contaminated);

(c) Net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;

(d) Gradient losses for banked climbouts;

(e) En route climb limits;

(f) Approach climb limits;

(g) Landing climb limits;

(h) Landing field length limits (dry, wet, contaminated), including the effects of an in-flight failure of a system or device, if it affects the landing distance;

(i) Brake energy limits; and

(j) Speeds applicable for the various flight stages (also considering wet or contaminated runways).

4.3 Supplementary Performance Data.

4.3.1 Supplementary data covering:

(a) Flights in icing conditions;

(b) The maximum crosswind and tailwind components for each aircraft type operated and the reductions to be applied to these values having regard to gust, low visibility, runway surface conditions, crew experience, use of autopilot, abnormal or emergency circumstances, or any other relevant operational factors; and

(c) Any certified performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative, shall be included.

4.4 Other Acceptable Performance Data.

4.4.1 If performance data, as required for the appropriate performance class, is not available in the approved AFM, then other data acceptable to the Authority shall be included. Alternatively, the OM may contain cross references to the approved data contained in the AFM, where such data is not likely to be used often or in an emergency.

4.5 Additional Performance Data.

4.5.1 Additional performance data, where applicable, including:

(a) All engines operating climb gradients;

(b) Drift-down data;

(c) The effect of de-icing/anti-icing fluids;

(d) Flight with landing gear down;

(e) For aircraft with three or more engines, one-engine-inoperative ferry flights; and

(f) Flights conducted under the provisions of a CDL.

5.0 Flight Planning

5.1 Flight Planning Data.

5.1.1 Specific data and instructions necessary for pre-flight and in-flight planning, including factors such as speed schedules and power settings. Where applicable, procedures for engine(s) out operations, EDTO, and flights to isolated aerodromes shall be included for the flight plan and the operational flight plan.

5.2 Fuel and Oil Calculations.

5.2.1 The method for calculating fuel needed for the various stages of flight.

6.0 Mass and Balance

6.1 Calculating Mass and Balance.

6.1.1 Instructions and data for calculating mass and balance, including:

(a) The calculation system (e.g., index system);

(b) Information and instructions for the completion of mass and balance documentation, including manual and computer-generated types;

(c) Limiting mass and centre of gravity of the various versions; and

(d) Dry operating mass and corresponding centre of gravity or index.

7.0 Loading

7.1 Loading Procedures.

7.1.1 Instructions for loading and securing a load in the aircraft, including:

(a) Use of aircraft systems and associated controls.

7.2 Loading Dangerous Goods.

7.2.1 A method for notifying the PIC when dangerous goods are loaded in the aircraft.

8.0 Survival and Emergency Equipment Including Oxygen

8.1 List of Survival Equipment to Be Carried.

8.1.1 A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off.

8.1.2 Instructions regarding the location, accessibility, and use of survival and emergency equipment and its associated checklist(s).

8.2 Ground-Air Visual Signal.

8.2.1 Instructions illustrating the ground-air visual signal code for use by survivors.

8.3 Oxygen Usage.

8.3.1 The procedure for determining the amount of oxygen required and the quantity that is available, taking into consideration the flight profile, number of occupants, and possible cabin decompression.

8.3.2 The information provided shall be in a form in which it can be used without difficulty.

8.4 Emergency Equipment Usage.

8.4.1 A description of the proper use of the following emergency equipment, if applicable:

(a) Life jackets;

(b) Life rafts;

(c) Medical kits/first aid kits;

(d) Survival kits;

(e) Emergency locator transmitter;

(f) Visual signalling devices;

(g) Evacuation slides; and

(h) Emergency lighting.

9.0 Emergency Evacuation Procedures

9.1 Instructions for Emergency Evacuation.

9.1.1 Instructions for preparing for emergency evacuation, including crew coordination and emergency station assignment.

9.2 Emergency Evacuation Procedures.

9.2.1 A description of the duties of all members of the crew for the rapid evacuation of an aircraft and the handling of passengers in the event of a forced landing, ditching, or other emergency.

10.0 Aircraft Systems

10.1 A description of the aircraft systems, related controls and indications, and operating instructions.

11.0 Minimum Equipment List and Configuration Deviation List

11.1 The MEL and CDL for the aircraft types operated and the specific operations authorised, including any requirements relating to operations where PBN is prescribed.

12.0 Route and Aerodrome Instructions and Information (optional for this manual)

13.0 Instructions and Information

13.1 Communications, navigation, and aerodromes.

13.1.1 Instructions and information relating to communications, navigation, and aerodromes, including:

(a) Minimum flight level/altitude for each route to be flown;

(b) Operating minima for departure, destination, and alternate aerodromes;

(c) Communication facilities and navigation aids;

(d) Runway data and aerodrome facilities;

(e) Approach, missed approach, and departure procedures, including noise abatement procedures;

(f) Communications-failure procedures;

(g) Search and rescue facilities in the area over which the aircraft is to be flown;

(h) A description of the aeronautical charts that shall be carried on board in relation to the type of flight and the route to be flown, including the method for checking their validity;

(i) Availability of aeronautical information and meteorological services;

(j) En route COM/NAV procedures, including holding; and

(k) Aerodrome categorisation for flight crew competence qualification.

IS 9.4.1.18 PASSENGER BRIEFING CARDS

(a) Each AOC holder shall, at each exit seat, provide passenger briefing cards that include the following information in the primary language in which emergency commands are given by the crew:

(1) Functions required of passengers in the event of an emergency in which a crew member is not available to assist, including how to:

(i) Locate the emergency exit;

(ii) Recognise the emergency exit opening mechanism;

(iii) Comprehend the instructions for operating the emergency exit;

(iv) Operate the emergency exit;

(v) Assess whether opening the emergency exit will increase the hazards to which passengers may be exposed;

(vi) Follow oral directions and hand signals given by a crew member;

(vii) Stow or secure the emergency exit door so it will not impede the use of the exit;

(viii) Assess the condition of an escape slide, activate the slide, and stabilise the slide after deployment to assist others in getting off the slide;

(ix) Pass expeditiously through the emergency exit; and

(x) Assess, select, and follow a safe path away from the emergency exit; and

(2) A request that passengers identify themselves to allow being reseated if they:

(i) Are less than 15 years of age or lack the capacity to perform one or more of the applicable functions listed in paragraph (a)(1) of this IS without the assistance of an adult companion, parent, or other relative;

(ii) Cannot perform the emergency functions stated in the information card;

(iii) Have an indiscernible condition that will prevent them from performing the emergency functions;

(iv) May suffer bodily harm as a result of performing one or more of the emergency functions;

(v) Do not wish to perform the emergency functions; or

(vi) Lack the ability to read, speak, or understand the language or the graphic form in which instructions are provided by the AOC holder.

IS 9.4.1.19 AERONAUTICAL DATA CONTROL SYSTEM

(a) Each AOC holder shall provide aeronautical data about each aerodrome used by the AOC holder, to include the following:

(1) Aerodromes and heliports:

(i) Facilities;

(ii) Public protection;

(iii) Navigation and communication aids;

(iv) Construction affecting take-off, landing, or ground operations; and

(v) Air traffic facilities.

(2) Runways, clearways, and stopways:

(i) Dimensions;

(ii) Surface;

(iii) Marking and lighting systems; and

(iv) Elevation and gradient.

(3) Displaced thresholds:

(i) Location;

(ii) Dimensions; and

(iii) Take-off, landing, or both.

(4) Obstacles:

(i) Those affecting take-off and landing performance computations; and

(ii) Controlling obstacles.

(5) Instrument flight procedures:

(i) Departure procedure;

(ii) Approach procedure; and

(iii) Missed approach procedure.

(6) Special information:

(i) RVR measurement equipment; and

(ii) Prevailing winds under low-visibility conditions.

IS 9.4.1.20 ROUTE GUIDE – AREAS, ROUTES, AERODROMES, AND HELIPORTS

(a) Each AOC applicant and AOC holder shall submit and maintain as part of its OM a route guide containing information on areas, routes, aerodromes, and heliports. The route guide shall contain at least the information in IS 9.4.1.20(c).

(b) The route guide shall ensure that the flight crew have, for each flight, information relating to communication facilities, navigation aids, aerodromes, heliports, instrument approaches, instrument arrivals, and instrument departures, as applicable for the operation, and such other information as the operator may deem necessary in the proper conduct of flight operations.

(c) Each route guide shall contain at least the following information:

(1) The minimum flight altitudes for each aircraft to be flown;

(2) Aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes;

(3) The increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities;

(4) Heliport operating minima for each of the heliports that are likely to be used as heliports of intended landing or as alternate heliports;

(5) The increase of heliport operating minima in case of degradation of approach or heliport facilities; and

(6) The necessary information for compliance with all flight profiles required by regulations, including the determination of:

(i) Take-off runway length requirements for dry, wet, and contaminated conditions, including those dictated by systems failures that affect the take-off distance;

(ii) Take-off climb limitations;

(iii) En route climb limitations;

(iv) Approach climb limitations and landing climb limitations;

(v) Landing runway length requirements for dry, wet, and contaminated conditions, including systems failures that affect the landing distance; and

(vi) Supplementary information, such as tire speed limitations.

IS 9.4.1.21 WEATHER REPORTING SOURCES

(a) The Authority approves the following sources of weather reports and considers the reports from these sources satisfactory for flight planning or for controlling flight movement:

(1) Curaçao Meteorological Office.;

(2) Curaçao-operated automated surface observation stations;

Note: Some automated systems cannot report all required items for a complete surface aviation weather report.

(3) Curaçao-operated supplemental aviation weather reporting stations;

(4) Observations taken by aerodrome traffic control towers;

(5) Curaçao-contracted weather observatories;

(6) Any active meteorological office operated by a foreign state that subscribes to the ICAO Standards and practices;

Note: These meteorological offices are normally listed in the meteorological tables located in ICAO Regional Air Navigation Plans.

(7) Any military weather-reporting sources approved by the Authority;

Note: Use of military sources is limited to control of those flight operations that use military aerodromes as departure, destination, alternate, or diversionary aerodromes.

(8) Near-real-time reports such as pilot reports, radar reports, radar summary charts, and satellite imagery reports made by commercial weather sources or other sources specifically approved by the Authority; and

(9) A weather reporting system operated and maintained by the AOC holder and approved by the Authority.

IS 9.4.1.22 DE-ICING AND ANTI-ICING PROGRAMME

(a) The AOC holder's ground de-icing and anti-icing programme shall include a detailed description of:

(1) How the AOC holder determines that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and that ground de-icing and anti-icing operational procedures shall be in effect;

(2) Who is responsible for deciding that ground de-icing and anti-icing operational procedures shall be in effect;

(3) The procedures for implementing ground de-icing and anti-icing operational procedures; and

(4) The specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground de-icing and anti-icing operational procedures are in effect.

(b) Initial and annual recurrent ground training for flight crew and all other affected personnel (e.g., FOOs/flight dispatchers, ground personnel, contract personnel) shall cover the specific requirements of the approved de-icing and anti-icing programme and each person's responsibilities and duties under the approved programme, including:

(1) The use of holdover times;

(2) Aircraft de-icing/anti-icing procedures, including inspection and check procedures and responsibilities;

(3) Communication procedures;

(4) Aircraft surface contamination (e.g., adherence of frost, ice, or snow) and critical area identification and how contamination adversely affects aircraft performance and flight characteristics;

(5) Types and characteristics of de-icing/anti-icing fluids;

(6) Cold weather pre-flight inspection procedures; and

(7) Techniques for recognising contamination on the aircraft.

(c) The AOC holder's de-icing and anti-icing programme shall include procedures for flight crew members to increase or decrease the determined holdover time in changing conditions. The holdover time shall be supported by data acceptable to the Authority. If the maximum holdover time is exceeded, take-off is prohibited unless at least one of the following conditions exists:

(1) A pre-take-off contamination check is conducted outside the aircraft (within 5 minutes prior to beginning take-off) to determine that the wings, control surfaces, and other critical surfaces, as defined in the AOC holder's de-icing and anti-icing programme, are free of frost, ice, or snow;

(2) It is otherwise determined by an alternate procedure, approved by the Authority and in accordance with the AOC holder's approved de-icing and anti-icing programme, that the wings, control surfaces, and other critical surfaces are free of frost, ice, or snow; or

(3) The wings, control surfaces, and other critical surfaces, as defined in the AOC holder's de-icing and anti-icing programme, are de-iced again and a new holdover time is determined.

IS 9.4.1.24 FATIGUE RISK MANAGEMENT SYSTEM

(a) An FRMS shall contain, at a minimum:

(1) FRMS policy and documentation;

(2) Fatigue risk management processes;

(3) FRMS safety assurance process; and

(4) FRMS promotion processes.

(b) The operator shall define its FRMS policy, with all elements of the FRMS clearly identified.

(c) The FRMS policy shall require that the scope of FRMS operations be clearly defined in the OM.

(d) The FRMS policy shall:

(1) Reflect the shared responsibility of management, flight and cabin crew members, and all other involved personnel;

(2) Clearly state the safety objectives of the FRMS;

(3) Be signed by the executive manager of the organisation;

(4) Be communicated, with visible endorsement, to all the relevant areas and levels of the organisation;

(5) Declare management commitment to effective safety reporting;

(6) Declare management commitment to the provision of adequate resources for the FRMS;

(7) Declare management commitment to continuous improvement of the FRMS;

(8) Require that clear lines of accountability for management, flight and cabin crew members, and all other involved personnel are identified; and

(9) Require periodic reviews to ensure it remains relevant and appropriate.

Note: Effective safety reporting is described in ICAO Doc 9859, Safety Management Manual (SMM).

(e) FRMS Documentation.

(1) An operator shall develop and keep current FRMS documentation that describes and records:

(i) FRMS policy and objectives;

(ii) FRMS processes and procedures;

(iii) Accountabilities, responsibilities, and authorities for these processes and procedures;

(iv) Mechanisms for ongoing involvement of management, flight and cabin crew members, and all other involved personnel;

(v) FRMS training programmes, training requirements, and attendance records;

(vi) Scheduled and actual flight times, duty periods, and rest periods, with significant deviations and reasons for deviations noted; and

Note: Significant deviations are described in ICAO Doc 9966, Manual for the Oversight of Fatigue Management Approaches.

(vii) FRMS outputs, including findings from collected data, recommendations, and actions taken.

(f) Fatigue Risk Management Processes – Identification of Hazards.

(1) An operator shall develop and maintain three fundamental and documented processes for fatigue hazard identification:

(i) Predictive. The predictive process shall identify fatigue hazards by examining crew scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include, but are not limited to:

(1) Operator or industry operational experience and data collected on similar types of operations;

(2) Evidence-based scheduling practices; and

(3) Biomathematical models.

(ii) Proactive. The proactive process shall identify fatigue hazards within current flight operations. Methods of examination may include, but are not limited to:

(1) Self-reporting of fatigue risks;

(2) Crew fatigue surveys;

(3) Relevant flight and cabin crew performance data;

(4) Available safety databases and scientific studies; and

(5) Analysis of planned versus actual time worked.

(iii) Reactive. The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimised. At a minimum, the process may be triggered by any of the following:

(1) Fatigue reports;

(2) Confidential reports;

(3) Audit reports;

(4) Incidents; and

(5) Flight data analysis events.

(g) Risk Assessment.

(1) An operator shall develop and implement risk assessment procedures that determine the probability and potential severity of fatigue-related events and identify when the associated risks require mitigation. The risk assessment procedures shall review identified hazards and link them to:

(i) Operational processes;

(ii) Their probability;

(iii) Possible consequences; and

(iv) The effectiveness of existing safety barriers and controls.

(h) Risk Mitigation.

(1) An operator shall develop and implement risk mitigation procedures that:

(i) Select the appropriate mitigation strategies;

(ii) Implement the mitigation strategies; and

(iii) Monitor the implementation and effectiveness of the strategies.

(i) FRMS Safety Assurance Process.

(1) The operator shall develop and maintain an FRMS safety assurance process to:

(i) Provide for continuous FRMS performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include:

(1) Hazard reporting and investigations;

(2) Audits and surveys; and

(3) Reviews and fatigue studies.

(ii) Provide a formal process for the management of change, which shall include:

(1) Identification of changes in the operational environment that may affect FRMS;

(2) Identification of changes within the organisation that may affect FRMS; and

(3) Consideration of available tools that could be used to maintain or improve FRMS performance prior to implementing changes.

(iii) Provide for the continuous improvement of the FRMS, which shall include:

(1) The elimination and/or modification of risk controls that have had unintended consequences or that are no longer needed due to changes in the operational or organisational environment;

(2) Routine evaluations of facilities, equipment, documentation, and procedures; and

(3) The determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

(j) FRMS Promotion Process.

(1) An operator shall develop an FRMS promotion process that supports the ongoing development of the FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the operator as part of its FRMS:

(i) Training programmes to ensure competency commensurate with the roles and responsibilities of management, flight and cabin crew members, and all other involved personnel under the planned FRMS; and

(ii) An effective FRMS communications plan that:

(1) Explains FRMS policies, procedures, and responsibilities to all relevant stakeholders; and

(2) Describes communication channels used to gather and disseminate FRMS-related information.

IS 9.5.1.4 MAINTENANCE CONTROL MANUAL

(a) Each AOC applicant and AOC holder shall submit and maintain an MCM containing at least the following:

Note: The manual may be arranged in any subject order and the subjects may be combined so long as all applicable subjects are covered in the manual.

1.0 Administration and Control of the Maintenance Control Manual

1.1 Introduction.

1.1.1 A statement that the manual complies with all applicable Authority regulations and requirements and with the terms and conditions of the applicable AOC;

1.1.2 A statement that the manual contains maintenance and operational instructions with which the relevant personnel are to comply in the performance of their duties;

1.1.3 A list and brief description of the various MCM parts and their contents, applicability, and use; and

1.1.4 Explanations and definitions of terms and words used in the manual.

1.2 System of Amendment and Revision.

1.2.1 A description of who is responsible for the issuance and insertion of amendments and revisions;

1.2.2 A required record of amendments and revisions with insertion dates and effective dates;

1.2.3 A statement that hand-written amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety;

1.2.4 A description of the system for the annotation of pages and their effective dates;

1.2.5 A list of effective pages and their effective dates;

1.2.6 Annotation of changes (on text pages and, as practicable, on charts and diagrams);

1.2.7 A system for recording temporary revisions;

1.2.8 A description of the distribution system for the manuals, amendments, and revisions; and

1.2.9 A statement of who is responsible for notifying the Authority of proposed changes and for working with the Authority on changes requiring Authority approval.

2.0 General Organisation

2.1 Corporate Commitment by the AOC Holder.

2.2 General Information.

2.2.1 A brief description of the organisation;

2.2.2 A description of the organisation's relationships with other organisations;

2.2.3 Fleet composition;

2.2.4 The type of operation; and

2.2.5 Line station locations.

2.3 Maintenance Management Personnel.

2.3.1 Executive manager;

2.3.2 Nominated post holder;

2.3.3 Maintenance coordination;

2.3.4 Duties and responsibilities;

2.3.5 Organisation chart(s); and

2.3.6 Manpower resources and training policy.

2.4 Notification Procedure to the Authority Regarding Changes to the Maintenance Arrangements, Locations, Personnel, Activities, or Approval.

3.0 Maintenance Procedures

3.1 Aircraft Logbook Utilisation and MEL Application.

3.2 Aircraft Maintenance Programme Development and Amendment.

3.3 Time and Continuing Airworthiness Records, Responsibilities, and Retention.

3.4 Accomplishment and Control of Mandatory Continuing Airworthiness Information (Airworthiness Directives).

3.5 Analysis of the Effectiveness of the Maintenance Programme.

3.6 Non-Mandatory Modification Embodiment Policy.

3.7 Major Modification Standards.

3.8 Defect Reports.

3.8.1 Analysis;

3.8.2 Liaison with manufacturers and Authorities; and

3.8.3 Deferred defect policy.

3.9 Engineering Activity.

3.10 Reliability Programmes.

3.10.1 Airframe;

3.10.2 Propulsion; and

3.10.3 Components.

3.11 Pre-Flight Inspection.

3.11.1 Preparation of aircraft for flight;

3.11.2 Subcontracted ground handling functions;

3.11.3 Security of cargo and baggage loading;

3.11.4 Control of refuelling, quantity/quality; and

3.11.5 Control of snow, ice, dust, and sand contamination to an approved aviation standard.

3.12 Aircraft Weighing.

3.13 Flight Test Procedures.

3.14 Sample of Documents, Tags, and Forms Used.

3.15 Appropriate Portions of the AOC Holder's Operations Manual.

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 10 – COMMERCIAL AIR TRANSPORT BY FOREIGN AIR OPERATORS TO/ FROM CURAÇAO

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INTRODUCTION

Part 10 of the Curaçao Civil Aviation Regulations (CCAR) sets forth the terms and conditions under which Curaçao will carry out its aviation safety responsibility to its own citizens and ensure the safe operation, airworthiness, and air crew qualifications of foreign air operators it allows to operate into, from, or within Curaçao territory, as mandated by the International Civil Aviation Organization (ICAO) Convention on International Civil Aviation (Chicago Convention) and the laws and regulations of Curaçao.

Each Contracting State is empowered under the Chicago Convention to set the terms for entry into and flight operations into, from, or within that Contracting State. Ordinarily, international commercial air transport flights are allowed into a Contracting State under the terms and authority of international agreements that grant the economic permission to operate into, from, or within that Contracting State and require the safe operation of such aircraft. As a result, the Civil Aviation Authorities (CAAs) of the State of Registry and the State of the Operator are responsible under the Chicago Convention for the safe operation of each aircraft that is allowed to conduct commercial air transport into, from, or within Curaçao.[1]

The requirements placed upon foreign air operators in this part are directly related to each Contracting State's responsibility to assure that its air operators engaged in international commercial air transport adhere to the Standards and Recommended Practices (SARPs) set forth in the applicable ICAO Annexes, the special conditions existing within Curaçao that Curaçao notes to ICAO as differences from the SARPs, and the special conditions within Curaçao that it reports in aeronautical information manuals and publications.

[1] Most international commercial air operators in a Contracting State have a single Authority that issues air operator certificates and is responsible for the validity of crew member licenses and the airworthiness of aircraft registered in that State. However, it is best to consider the State of Registry and the State of the Operator as separate entities until the actual situation respecting leases or arrangements is fully determined.

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PART 10 – COMMERCIAL AIR TRANSPORT BY FOREIGN AIR OPERATORS TO/FROM CURAÇAO

10.1 GENERAL

10.1.1.1 APPLICABILITY

This regulation prescribes requirements applicable to the operation of any civil aircraft that is:

(1) Used for commercial air transportation operations by any air operator whose AOC is issued;

(2) Used for charter operations or private flights; and

(3) Controlled by a Civil Aviation Authority (CAA) other than the Curaçao Civil Aviation Authority, CCAA.

This part does not apply to aircraft when used by military, customs, Coast Guard and police services or similar, which are not used for compensation or hire.

Where "the Authority" is used in this Part 10, reference is made to the CCAA.

10.1.1.2 DEFINITIONS

(a) Definitions are contained in Part 1 of these regulations.

10.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **ACAS –** Airborne Collision Avoidance System

(2) **AFM –** Aircraft Flight Manual

(3) **AMM –** Aircraft Maintenance Manual

(4) **AMO –** Approved Maintenance Organization

(5) **AMT –** Aircraft Maintenance Technician

(6) **AOC –** Air Operator Certificate

(7) **ASA –** Air Services Agreement

(8) **ATC –** Air Traffic Control

(9) **C2 –** Command and Control

(10) **C2 Link –** Command and Control Link

(11) **CCAA** – Curaçao Civil Aviation Authority

(12) **CCAR** – Curaçao Civil Aviation Regulations

(13) **CP –** Co-Pilot/First Officer

(14) **CVR –** Cockpit Voice Recorder

(15) **EDTO –** Extended Diversion Time Operations

(16) **ELT –** Emergency Locator Transmitter

(17) **FDR –** Flight Data Recorder

(18) **GPWS –** Ground Proximity Warning System

(19) **ICAO –** International Civil Aviation Organization

(20) **IFR –** Instrument Flight Rules

(21) **IMC –** Instrument Meteorological Conditions

(22) **IS –** Implementing Standards

(23) **iSTARS –** Integrated Safety Trend Analysis and Reporting System

(24) **MEL –** Minimum Equipment List

(25) **MMEL –** Master Minimum Equipment List

(26) **MOU –** Memorandum of understanding

(27) **NOTAM –** Notice to Airmen

(28) **NOTOC –** Notice to Captain

(29) **OPS –** Operations

(30) **PIC –** Pilot-In-Command

(31) **RFM –** Rotorcraft Flight Manual

(32) **RPA –** Remotely Piloted Aircraft

(33) **RPAS –** Remotely Piloted Aircraft System(s)

(34) **RVSM –** Reduced Vertical Separation Minimum

(35) **SNOWTAM –** Snow Notice to Airmen

(36) **USOAP –** Universal Safety Oversight Audit Programme

(37) **VFR –** Visual Flight Rules

(38) **VLOS –** Visual Line-of-Sight

(39) **VMC –** Visual Meteorological Conditions

10.1.1.4 COMPLIANCE

(a) A foreign air operator shall not operate an aircraft in commercial air transportation operations into Curaçao contrary to:

(1) The requirements of this part 10;

(2) The applicable paragraphs of Parts 7 and 8 of these regulations;

(3) The applicable Standards contained in the Annexes to the Chicago Convention, for the operation to be conducted; and

(4) Any other requirements that the Authority may specify.

10.1.1.5 AUTHORITY TO INSPECT

(a) A foreign air operator shall ensure that any person authorized by the Authority shall be permitted at any time, without prior notice, to board any aircraft operated for commercial air transportation to Curaçao:

(1) To inspect the documents and manuals required by this part 10;

(2) To conduct an inspection of the aircraft; and

(3) To take appropriate action when necessary to preserve safety.

When the Authority identifies a case of non-compliance or suspected non-compliance by an original operator with laws, regulations, and procedures applicable within the Curaçao territory or identifies a similar serious safety issue with that operator, the Authority will immediately notify the operator and, if the issue warrants it, the State of the Operator. Where the State of the Operator and the State of Registry are different, such notification will also be made to the State of Registry if the issue falls within the responsibilities of that State and warrants a notification.

In the case of notification to States as specified in paragraph 10.1.1.5 (b) of this subsection, if the issue and its resolution warrants it, the Authority will engage in consultations with the State of the Operator and the State of Registry, as applicable, concerning the safety standards maintained by the operator.

Inspections will be conducted in accordance with the requirements and checklist prescribed in the CCAA Ramp Inspection Manual, Appendix 1.

Findings from inspections will be resolved in accordance with the CCAA Ramp Inspection Manual, Appendix 2.

Note: ICAO Doc 8335, Manual of Procedures for Operations Inspection, Certification and Continued Surveillance, provides guidance on the surveillance of operations by foreign air operators. The manual also contains guidance on the consultations and related activities specified in this part, including the ICAO model clause on aviation safety, which, if included in a bilateral or multilateral agreement of air service, provides for consultations among States when safety issues are identified by any of the parties to the agreement.

10.2 APPROVAL FOR FOREIGN AIR OPERATORS TO OPERATE TO/FROM CURAÇAO

10.2.1.1 APPLICATION FOR APPROVAL TO OPERATE TO/FROM CURAÇAO FOR SCHEDULED OR SEASONAL COMMERCIAL AIR TRANSPORT AOC HOLDERS

(a) A foreign air operator from the territory of another State shall not operate an aircraft to/from Curaçao unless it is so authorized by the Authority and holds an associated Document of Authorization, Conditions, and Limitations issued by the Authority.

(b) A foreign air operator intending to operate to/from Curaçao shall submit an application to the Authority by using Form CCAA 006 obtainable at the Authority.

(c) An application for this approval to operate to/from Curaçao shall be accompanied by:

(1) A true copy of a valid AOC and associated operations specifications issued to the foreign air operator by the Foreign Authority.

(2) A copy of the approval page for a MEL for each aircraft type intended to be operated by the foreign air operator to/from Curaçao.

(3) A copy of the current certificate of aircraft registration and certificate of airworthiness issued for each aircraft type proposed to be operated by the foreign air operator to/from Curaçao or a copy of the complete Operations Specifications of the operator issued by the state of the operator listing the approved aircraft types and models and aircraft registration marks and approved Area of Operations (examples are FAA Operations Specifications A999, B050, D085). A signed official document from the respective Civil Aviation Authority of the AOC Holder with listed routes and aircraft is also acceptable.

(4) A copy of the valid insurance certificate.

(5) A copy of the operational procedures and practices of the foreign air operator (Aircraft Operations Manual).

(6) A copy of a document identifying the maintenance checks that are required to be performed on the aircraft of the foreign air operator while they are operated to/from Curaçao.

(7) A copy of the maintenance contract between the foreign air operator and the AMO, where the maintenance under paragraph 10.2.1.1 (c)(6) of this subsection is performed by an AMO approved by the Operator. An alternate means is having a qualified company AMT on board for turnaround flights or a listing of the check items (walk around) to be performed by the flight crew.

(8) A copy of the Air Service Agreement, containing a safety clause (available at the CCAA), allowing the foreign air operator to operate to/from Curaçao. If an ASA is not available, a separate safety clause shall be included in the Document of Authorization, Conditions and Limitations.

(9) In the case of wet-leased aircraft, a copy of the approval of the Authority of the State of the Operator, with identification of the foreign air operator that exercises operational and maintenance control of the aircraft.

(10) In the case of a foreign air operator that does not hold an AOC issued by the Authority (CCAA), a copy of the proposed air operator security programme which meets the requirements of the Curaçao Civil Aviation Regulations (CCAR) for acceptance.

(11) Any other document or confirmation the Authority considers necessary to ensure that the intended operations will be conducted safely i.e. TCAS II v7.1 or later, ADSB-Out.

(12) The foreign operator shall contract a Security Provider approved by the Authority to provide the required security controls.

(13) The foreign Operator shall contract a Ground Handler approved by the Authority for the safe ground handling of the aircraft.

(d) An applicant under these regulations shall apply for the issue of a Document of Authorization, Conditions, and Limitations at least 90 days before the date of commencement of intended operation.

10.2.1.1 (B) APPLICATION FOR APPROVAL TO OPERATE TO/FROM CURAÇAO FOR CHARTER OPERATIONS AND PRIVATE FLIGHTS (FAA PART 91 OR EQUIVALENT)

ISSUANCE OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) No approval authorization is required from the Authority **for Private Flights** except under special circumstances as indicated by NOTAM. Examples of special circumstances, not limited to, are a Pandemic, Natural Disasters, Sanction Requirements, Immigration and Customs requirements, or any special circumstance declared by the Authority or the Government of Curaçao.

(b) No aircraft operator from the territory of another State shall operate a charter or a private aircraft to/from Curaçao unless it complies with the following:

(1) An approved flight plan is filed along published approved ATS routes.

(2) All ATS requirements are met as published in the AIP.

(3) All aircraft shall have a valid Certificate of Airworthiness, Certificate of Registration, Radio License, Noise Certificate (if applicable) and a valid Insurance Certificate.

(4) Crewmembers shall carry valid licenses and passport as required and as detailed in paragraphs 10.3.1.2 and 10.5.

10.2.1.2 ISSUANCE OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) No foreign air operator shall commence commercial air transport operations to/from Curaçao until the Document of Authorization, Conditions, and Limitations has been issued by the CCAA.

The CCAA will issue a Document of Authorization, Conditions, and Limitations to a foreign air operator to conduct commercial air transport operations to/from Curaçao:

(1) Where the Authority is satisfied and has confidence in:

(i) The validity of the certificates and licenses associated with the operator.

(ii) The operator's personnel and aircraft.

(iii) The operational capabilities of the operator; and

(iv) The level of certification and oversight applied to the activities of the operator by the Foreign Authority.

Following approval of the operator's application to operate to/from Curaçao.

Upon a satisfactory administrative review of the documentation provided by the operator under paragraphs 10.2.1.1 (c) and (d) of this part; and when one of the following conditions is met:

(i) The operator has established a bilateral or multilateral agreement with the State of the Operator that includes in the agreement the safety clause referenced under paragraph 10.2.1.1 (c)(8) of this part; or

(ii) The operator has not established a bilateral or multilateral agreement with the State of the Operator, but the CCAA receives no significant safety findings or major deficiencies from available safety-related information relevant to the operator.

The criteria to be used for evaluating the conditions stipulated under paragraph 10.2.1.2 (b) of this subsection are contained in IS 10.2.1.2.

10.2.1.3 CONTENTS OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) The CCAA will issue a Document of Authorization, Conditions, and Limitations to foreign air operators for elements not listed in the operator's AOC and its associated operations specifications but considered necessary for compatible operations to/from Curaçao.

(b) A Document of Authorization, Conditions, and Limitations issued under this subsection shall contain:

(1) The operator's full name;

(2) The operator's principal place of business address and contact details for operational management.

(3) The operator's business address and contact details in Curaçao.

(4) The date of issuance and expiry (if any) of the operator's AOC.

(5) A statement that reads: "This document authorizes [NAME OF FOREIGN AIR OPERATOR] to operate to/from Curaçao.

(6) A statement that reads: "This document is issued to [NAME OF FOREIGN AIR OPERATOR] on the basis of it holding a valid AOC. Any changes to the AOC made by the Foreign Authority that issued and oversees the AOC of [NAME OF FOREIGN AIR OPERATOR] shall be submitted by [NAME OF FOREIGN AIR OPERATOR] in writing to the [AUTHORITY OF STATE] within 30 days of such change".

(7) A statement that reads: "This document ceases to have effect upon expiry, suspension, revocation, cancellation, or equivalent action"; and

(8) Any additional special limitations and specific approvals considered necessary by the CCAA.

(c) A Document of Authorization, Conditions, and Limitations issued to a foreign air operator by the CCAA shall be supplementary to these regulations.

10.2.1.4 CONTINUED VALIDITY OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) A foreign air operator, when conducting operations to/from Curaçao, shall ensure that it complies at all times with the requirements of:

(1) Its Document of Authorization, Conditions, and Limitations.

(2) Its approved air operator security programme; and

(3) The security requirements for air operators operating to/from Curaçao.

10.3 FOREIGN AIR OPERATOR MANUALS, DOCUMENTS, AND RECORDS

10.3.1.1 AIRCRAFT TECHNICAL LOG

(a) A foreign air operator shall use an aircraft technical log system containing the following information for each aircraft:

(1) Information about each flight necessary to ensure continued flight safety;

(2) The current aircraft approval for return to service;

(3) The current maintenance statement, showing the aircraft maintenance status of what scheduled, and out-of-phase maintenance is next due, unless the Authority agrees to the maintenance statement being kept elsewhere;

(4) All outstanding deferred defects that affect the operation of the aircraft; and

(5) Any necessary guidance and instructions on maintenance support.

10.3.1.2 MANUALS, DOCUMENTS, AND LICENCES TO BE CARRIED

(a) A foreign air operator shall ensure that the following manuals, documents, and licenses are carried on flights to/from Curaçao:

(1) A true copy of the AOC and associated operations specifications, all of which shall be in the English language;

(2) A copy of the Document of Authorization, Conditions, and Limitations issued by the CCAA required under this Part 10, in hard copy or in electronic format provided the information is accessible for inspection;

(3) The current parts of the Operations Manual that are relevant to the duties of the crew;

(4) The current parts of the Operations Manual that are required for the conduct of a flight, such as the MEL and information and instructions relating to the interception of aircraft, and which shall be easily accessible to the crew on board the aircraft on each flight;

(5) The current AFM or RFM approved by the State of Registry, or the current Aircraft Operating Manual approved by the State of the Operator; the AFM or RFM shall be updated by

implementing changes made mandatory by the State of Registry received from the State of Design;

(6) The current certificate of aircraft registration and the certificate of airworthiness in force with respect to that aircraft;

(7) The appropriate licenses and passports of the members of the flight crew and cabin crew, if a cabin crew license is required by the Foreign Authority;

(8) A noise certificate, where applicable, which will be issued in accordance with ICAO Annex 16, Volume I; and

(9) Appropriate approvals and/or licenses of crew members for aircraft radio operation.

10.3.1.3 ADDITIONAL INFORMATION AND FORMS TO BE CARRIED

(a) A foreign air operator shall ensure that, in addition to the documents and manuals prescribed in 10.3.1.2 of this part, the following information and forms, relevant to the type and area of operation, are carried on each flight:

(1) The operational flight plan;

(2) The aircraft technical log, containing at least the information required by paragraph 10.3.1.1 (a) of this part;

(3) The appropriate NOTAM, SNOWTAM, and/or other aeronautical information service briefing documentation;

(4) The appropriate meteorological information;

(5) The passenger and cargo manifests, as appropriate for the intended flight;

(6) The mass and balance documentation for the aircraft, certifying that the load carried is properly distributed and safely secured;

(7) The notification of special loads, including any dangerous goods; and

(8) The current maps and charts for the area of operation.

(9) A NOTOC if the operator is approved to carry Dangerous Goods and if Dangerous Goods are on board.

(b) The Authority may authorize the information detailed in paragraph 10.3.1.3 (a) of this subsection to be presented in a form other than on printed paper, provided the information is accessible for inspection.

10.3.1.4 PRODUCTION OF DOCUMENTS, MANUALS, AND RECORDS

(a) A foreign air operator shall:

(1) Give any person authorized by the Authority access to any documents, manuals, and records that are related to flight operations and maintenance; and

(2) Produce all such documents, manuals, and records, when requested to do so by the Authority, within a reasonable period of time.

(b) The PIC shall, within a reasonable time of being requested to do so by a person authorized by the Authority, produce to that person the documentation, manuals, and records required to be carried on board.

10.3.1.5 PRESERVATION, PRODUCTION, AND USE OF FLIGHT RECORDER RECORDINGS

(a) Following an accident or incident in Curaçao involving an aircraft of a foreign air operator, or when the Authority so directs, the foreign air operator of an aircraft on which a flight recorder is carried shall preserve the original recorded data for a period of not less than 60 days, unless otherwise directed by the Authority. This is applicable to both the Cockpit Voice Recorder and the Flight Data Recorder.

10.4 OPERATIONS AND PERFORMANCE

10.4.1.1 COMPUTATION OF PASSENGER AND BAGGAGE WEIGHED MASS

(a) A foreign air operator shall compute the mass of passengers and checked baggage using:

(1) The actual weighed mass of each person and the actual weighed mass of baggage; or

(2) The standard mass values specified by the Foreign Authority.

(b) The Authority may require a foreign air operator conducting operations to/from Curaçao to produce evidence validating any standard mass values used.

10.4.1.2 SINGLE-ENGINE AEROPLANES AT NIGHT OR IN INSTRUMENT METEOROLOGICAL CONDITIONS

(a) A foreign air operator may not operate a single-engine, non-turbine aeroplane:

(1) At night; or

(2) In IMC except under special VFR.

(b) A foreign air operator may operate a single-engine turbine aeroplane at night and in IMC provided the State of the Operator has ensured that:

(1) The turbine engine is reliable;

(2) The operator's maintenance procedures, operating practices, flight dispatch procedures, and crew training programmes are adequate;

(3) The aeroplane is appropriately equipped for flight at night and in IMC;

(4) Aeroplanes issued a certificate of airworthiness before 01 January 2005 have an engine trend monitoring system; and

(5) Aeroplanes issued a certificate of airworthiness on or after 01 January 2005 have an automatic trend monitoring system.

10.4.1.3 SINGLE-PILOT OPERATIONS UNDER INSTRUMENT FLIGHT RULES OR AT NIGHT

(a) A foreign air operator shall not operate an aeroplane under IFR or at night with a single pilot unless approved by the State of the Operator and the aeroplane meets the following conditions:

(1) The AFM does not require a flight crew of more than one pilot;

(2) The aeroplane is propeller driven;

(3) The maximum approved passenger seating configuration is not more than nine;

(4) The maximum certificated take-off mass does not exceed 5 700 kg;

(5) The aeroplane is equipped with:

(i) A serviceable autopilot that has at least altitude hold, and heading select modes;

(ii) A headset with a boom microphone or equivalent; and

(iii) A means of displaying charts that enables them to be readable in all ambient light conditions.

(6) The PIC has satisfied the requirements of experience, training, checking, and recency prescribed by the State of the Operator.

10.4.1.4 FLIGHT RULES WITHIN CURAÇAO

(a) Within the territorial boundaries of Curaçao, foreign air operators shall comply with the flight rules and limitations contained in CCAR Part 8 of these regulations.

(b) A foreign air operator shall ensure that its flight crew has available, and has become familiar with, the flight rules contained in CCAR Part 8 of these regulations.

10.5 FLIGHT CREW MEMBER QUALIFICATIONS

10.5.1.1 GENERAL

(a) A foreign air operator shall ensure that its flight crew members have the appropriate licenses and ratings for the operations to be conducted into/from Curaçao.

10.5.1.2 AGE LIMITATIONS

(a) Foreign air operators shall ensure that the required PIC engaged in single-pilot operations in aircraft operating to/from Curaçao shall be less than 60 years of age.

For aircraft engaged in operations into Curaçao requiring more than one pilot as flight crew, foreign air operators shall ensure that if one pilot is between 60 and 65 years of age, the other pilot is less than 60 years of age.

10.5.1.3 LANGUAGE PROFICIENCY

(a) Foreign air operators shall ensure that flight crew operating aircraft into Curaçao meet the language proficiency requirement of at least the ICAO Operational Level 4, as contained in ICAO Annex 1, for the English language and that such proficiency is endorsed on the license.

10.6 SECURITY

10.6.1.1 AIRCRAFT SECURITY

(a) A foreign air operator shall:

(1) Ensure that all appropriate personnel are familiar with and comply with the relevant requirements of the security programmes of the State of the Operator;

(2) Establish, maintain, and conduct approved training programmes that enable the operator's personnel to take appropriate action to prevent acts of unlawful interference such as sabotage or unlawful seizure of aircraft and to minimize the consequences of such events should they occur;

(3) Following an act of unlawful interference on board an aircraft, ensure that the PIC or, in his absence, the operator, shall submit without delay a report of such an act to the designated local authority and the Authority of the State of the Operator;

(4) Ensure that all aircraft carry a checklist of the procedures to be followed for that type of aircraft in searching for concealed weapons, explosives, or other dangerous devices; and

(5) Ensure that, if installed, the flight crew compartment door on all aircraft operated for the purpose of carrying passengers shall be capable of being locked from within the compartment in order to prevent unauthorized access.

10.6.1.2 UNAUTHORIZED CARRIAGE

(a) A foreign air operator shall take measures to ensure that no persons conceal themselves or cargo on board an aircraft.

10.7 DANGEROUS GOODS

10.7.1.1 OFFERING DANGEROUS GOODS FOR TRANSPORT BY AIR

(a) No foreign air operator may accept dangerous goods for transport by air into Curaçao unless the foreign air operator:

(1) Has been authorized to do so by the Foreign Authority; and

(2) Has conducted the required personnel training.

(b) The foreign air operator shall properly classify, document, certify, describe, package, mark, label, and put in a fit condition for transport, dangerous goods as required by the operator's dangerous goods programme as approved by the Foreign Authority.

(c) When the foreign air operator has been granted authority to accept dangerous goods and has an approved dangerous goods programme authorized by the Foreign Authority, the operator shall file a copy of its dangerous goods programme with the Authority (CCAA).

10.7.1.2 CARRIAGE OF WEAPONS OF WAR AND MUNITIONS OF WAR

(a) A foreign air operator conducting commercial air transportation operations to/from Curaçao shall:

(1) Not transport weapons of war and munitions of war by air unless an approval to do so has been granted by all States concerned;

(2) Ensure that weapons of war and munitions of war are:

(i) Stowed in the aircraft in a place that is inaccessible to passengers during flight;

and

(ii) In the case of firearms, unloaded, unless, before the commencement of the flight, an approval has been granted by all States concerned that such weapons of war and munitions of war may be carried in circumstances that differ in part or in total from those indicated in this paragraph; and

(3) Ensure that the PIC is notified before the flight begins of the details and location on board the aircraft of any weapons of war and munitions of war that are intended to be carried.

10.7.1.3 CARRIAGE OF SPORTING WEAPONS AND AMMUNITION

(a) A foreign air operator conducting commercial air transport operations to/from Curaçao shall take all measures necessary to ensure that any sporting weapons intended to be carried by air are reported.

(b) A foreign air operator accepting the carriage of sporting weapons shall ensure that they are:

(1) Stowed in a place on the aircraft that is inaccessible to passengers during flight, unless the Authority has determined that compliance is impracticable and has approved other procedures; and

(2) In the case of firearms or other weapons that can contain ammunition, unloaded.

(c) A foreign air operator may allow a passenger to carry ammunition for sporting weapons in that passenger's checked baggage, as approved by the Authority.

10.8 REGISTRATION/APPROVAL FOR FOREIGN AIR OPERATORS TO OPERATE REMOTELY PILOTED AIRCRAFT (RPA) IN THE TERRITORY OF CURAÇAO

10.8.1.1 APPLICATION FOR APPROVAL TO OPERATE REMOTELY PILOTED AIRCRAFT IN THE TERRITORY OF CURAÇAO

This section is applicable to a remotely piloted aircraft system (RPAS) engaged in international air navigation shall not be operated without an appropriate authorization from the State from which the take-off of the remotely piloted aircraft (RPA) is made (ICAO Annex 2 Rules of the Air, Appendix 4, paragraph 1).

This section is also applicable to a non-recreational remotely piloted aircraft system (RPAS) operation as determined by a Risk Assessment performed by the CCAA.

(a) A foreign air operator from the territory of another State shall not operate an RPA in Curaçao unless it is so registered or authorized by the Authority and holds a Document of Authorization, Conditions, and Limitations issued to it by the Authority.

(b) When a foreign operator wishes to apply to operate RPA in the territory of Curaçao, it shall:

(1) Make such application to the Authority in the form and manner prescribed; and

(2) Make such application by completing the application form prescribed in IS 10.8.1.1.

(c) An application for approval to operate in the territory of Curaçao shall be accompanied by a copy of the following, in an English translation if the original documents are not in English, for each RPA proposed to be operated in Curaçao:

(1) A certified true copy of a valid RPAS operator certificate;

(2) A certificate of aircraft registration;

(3) A certificate of airworthiness;

(4) The remote pilot(s) license and medical certificate(s);

(5) An aircraft radio station license, if applicable;

(6) An insurance certificate;

(7) A noise certificate issued in accordance with ICAO Annex 16;

(8) An air operator security programme; and

(9) Any other document the Authority considers necessary to ensure that the intended operations will be conducted safely.

(d) An applicant under these regulations shall apply for the initial issue of a foreign RPA approval at least 90 days before the date of commencement of the proposed operation.

(e) Once foreign RPA approval has been issued by the Authority, the operator shall:

(1) File a flight plan prior to operation of an RPA;

(2) Follow the operational rules for RPA in CCAR Part 8, 8.8.1.33 of these regulations;

(3) Notify the Authority and ATC immediately in the event of a flight cancellation; and

(4) In the case of changes to the proposed flight, submit such changes to the Authority for consideration.

Note: ICAO Doc 10019, Manual on Remotely Piloted Aircraft Systems (RPAS), *contains further information about the evolving regulatory framework of unmanned aircraft systems.*

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CURAÇAO CIVIL AVIATION REGULATIONS

PART 10 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 10.1.1.5 reflects a standard required by 10.1.1.5 of this part.

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PART 10 – IMPLEMENTING STANDARDS

IS 10.1.1.5 AUTHORITY TO INSPECT

(a) AUTHORIZED INSPECTORS.

(1) Authorized inspectors assigned to conduct inspections of foreign aircraft will be experienced inspectors who understand the difference between ramp inspections conducted on their own (national) operators as part of their AOC management responsibilities and surveillance inspections conducted on aircraft of foreign air operators.

(2) These inspectors will be specifically trained and authorized to conduct such inspections and will possess appropriate credentials identifying them as authorized inspectors employed by the Authority.

(3) Ramp inspections of foreign air operators will be performed in a similar manner to the ramp inspections of national operators, with some important differences, as the standards applied to foreign air operators will be based primarily on International Standards and national regulations derived from International Standards.

(4) Authorized inspectors will demonstrate a language proficiency in English of the ICAO Operational Level 4 or higher.

(5) Authorized inspectors will have in their personal training records evidence that they have been trained and are knowledgeable in the following areas:

(i) The Chicago Convention and its Annexes 1, 6, 7, and 8;

(ii) The differences between ICAO Standards and national regulations, which may be more detailed or restrictive;

(iii) Diplomacy, including dealing with potential language difficulties and cultural differences;

(iv) The sovereignty of foreign aircraft, which means that inspecting authority is limited to documenting, communicating, and reporting findings, except as provided in paragraph 10.1.1.5 (a)(3) of this part;

(v) The observation, recording, and reporting of procedures during inspections of foreign air operators; and

(vi) Surveillance activities that are not linked to the certification process of the operator.

(b) PRE-INSPECTION PLANNING.

(1) Authorized inspectors will prepare for inspections of foreign air operators by updating themselves on recent changes to national regulations with respect to operations by operators from other States.

(2) A check may be made with the authority for the foreign air operator to operate to/from Curaçao, and to operate the particular aircraft concerned, by consideration of its nationality and registration marks.

(3) The record of the foreign air operator's history in Curaçao will be examined, including records of past aircraft inspections and the particular aircraft concerned in the inspection to be conducted, to check for any outstanding actions or recurring trends that might warrant particular attention.

(4) Ramp inspections will involve the aircraft and its crew, line station operations, servicing and maintenance, and the ramp and gate area condition and activity. Time constraints may apply only to the inspection of the aircraft and crew. A determination will be made of

the number of authorized inspectors and the specializations to be involved, the distribution of tasks, and the time to be allocated to each task.

(5) As the inspection plan includes comprehensive inspections, it will not be possible to cover all the desired elements in the time available for a particular inspection without causing unreasonable delay to the foreign air operator.

(6) As inspections on aircraft of any one foreign air operator may be conducted at different aerodromes by different authorized inspectors, the overall inspection plan will take this into account. Some elements will be covered at every inspection; others may be covered over a number of inspections. Thus, comprehensive records of all inspections of aircraft of a particular operator will be maintained in a central database, in either paper or electronic format that is accessible to, and updated by, the authorized inspectors concerned.

(7) From these records, it will be necessary to plan the content of inspections so that a complete inspection of the aircraft of any one foreign air operator will be undertaken over a defined period.

(8) Selection of a particular aircraft to inspect should be done at random, in a non-discriminatory manner. However, selection will follow the principles of risk management to identify operations perceived to present a higher safety risk and, as a result, conduct additional inspection activities aimed at those operations, which may be linked to a specific:

(i) State of the Operator;

(ii) Aircraft type;

(iii) Type of operation (scheduled, non-scheduled, cargo, etc.);

(iv) Foreign air operator; or

(v) Individual aircraft.

(c) INSPECTIONS.

(1) The scope of a foreign air operator ramp inspection is as follows:

(i) It is not possible to cover all items on the checklist at every ramp inspection. Inspections will be planned to cover high-risk items and to cover all other items over a series of inspections.

(ii) It is essential that adequate records be kept and that there is complete coordination between all authorized inspectors involved in ramp inspections for any one operator.

(2) Areas that will be checked during a ramp inspection are:

(i) Flight deck;

(ii) Cabin/safety;

(iii) Aircraft external condition;

(iv) Cargo & Dangerous Goods; and

(v) General.

(d) The Authority will use the checklist prescribed in the CCAA Ramp Inspection Manual Appendix 1, CCAA Form 010.

(e) The Authority will use the procedures in the Ramp Inspection Manual, Chapter 4 and Appendix 2 to resolve findings from inspections.

IS 10.2.1.1 APPLICATION FOR APPROVAL TO OPERATE IN THE TERRITORY OF CURAÇAO

(a) CCAA Form 006 available at the Authority shall be used by a foreign air operator that intends to apply for approval to operate in the territory of Curaçao.

IS 10.2.1.1(B) SAFETY CLAUSE EXAMPLE

(a) An example of the safety clause (extracted from ICAO Doc 8335, *Manual of Procedures for Operations Inspection, Certification and Continued Surveillance*) that shall be inserted into air service agreements that allow operators to provide service to another State and vice versa, is available at the CCAA.

(1) Each Party may request consultations at any time concerning the safety standards maintained by the other Party in areas relating to aeronautical facilities, flight crew, aircraft and the operation of aircraft. Such consultations shall take place within 30 days of that request.

(2) If, following such consultations, one Party finds that the other Party does not effectively maintain and administer safety standards in the areas referred to in paragraph (1) of this subsection that meet the Standards established at that time pursuant to ICAO Doc 7300, *Convention on International Civil Aviation*, hereinafter referred to as the Chicago Convention, the other Party shall be informed of such findings and of the steps considered necessary to conform with the ICAO Standards. The other Party shall then take appropriate corrective action within an agreed time period.

(3) Pursuant to Article 16 of the Chicago Convention, it is further agreed that any aircraft operated by, or on behalf of, an airline of one Party, on service to or from the territory of another Party, may, while within the territory of the other Party, be the subject of a search by the authorized representatives of the other Party, provided this does not cause unreasonable delay in the operation of the aircraft. Notwithstanding the obligations mentioned in Article 33 of the Chicago Convention, the purpose of this search is to verify the validity of the relevant aircraft documentation, the licensing of its crew, and that the aircraft equipment and the condition of the aircraft conform to the Standards established at that time pursuant to the Chicago Convention.

(4) When urgent action is essential to ensure the safety of an airline operation, each Party reserves the right to immediately suspend or vary the operating authorization of an airline or airlines of the other Party.

(5) Any action by one Party in accordance with paragraph (4) above shall be discontinued once the basis for the taking of that action ceases to exist.

(6) With reference to paragraph (2) above, if it is determined that one Party remains in non-compliance with ICAO Standards when the agreed time period has lapsed, the Secretary General of ICAO shall be advised thereof. The latter shall also be advised of the subsequent satisfactory resolution of the situation.

IS 10.2.1.2 ISSUANCE OF A DOCUMENT OF AUTHORIZATION, CONDITIONS, AND LIMITATIONS

(a) The CCAA will, when evaluating an application by a foreign air operator to operate in the territory of Curaçao examine both:

(1) The safety oversight capabilities and record of the Foreign Authority of the State of the Operator and, if different, the State of Registry; and

(2) The operational procedures and practices of the foreign air operator.

Note: This is necessary to have confidence in the validity of the certificates and licenses associated with the foreign air operator and its personnel, aircraft, and operational capabilities and in the level of certification and oversight applied to the activities of the foreign air operator by the Foreign Authority of the State of the Operator.

(b) The CCAA will obtain information on the safety oversight capabilities and the level of compliance with ICAO Standards of the Foreign Authority of the State of the Operator by accessing information from the ICAO USOAP. This information is available:

(1) On the ICAO website (http://www.icao.int) through the iSTARS website;

(2) On the ICAO Safety Oversight Audit website, which is accessible to the Authority through iSTARS, subject to a password available only to the CCAA from ICAO; and

(3) By accessing audit summary reports from the USOAP audits available to the CCAA on the ICAO website (www.icao.int/safety/iStars/pages/into.aspx), subject to a password available only to the CCAA from ICAO.

(c) The CCAA will obtain and evaluate information on the foreign air operator. This information is available:

(1) By applying to the Foreign Authority of the State of the Operator for reports of any inspections that may have been conducted; and

(2) By requesting access to reports of audits of a foreign air operator, conducted by independent aviation audit organizations and/or by other air operators, such as code-sharing partners. Such non-regulatory audits shall be used in conjunction with other information, such as a report from the ICAO USOAP, or other inspection results to evaluate the application.

(d) The Authority will complete Section 2 of the Application for Commercial Air Transport Operations by a Foreign Air Operator.

(1) In the case of significant negative findings and/or major deficiencies relevant to its review of the safety oversight capabilities and the level of compliance with ICAO Standards of the Foreign Authority of the State of the Operator, the CCAA will engage in discussions with the Foreign Authority of the State of the Operator seeking resolution of the deficiencies prior to deciding whether to approve or not to approve the Application for Commercial Air Transport Operations by a Foreign Air Operator and whether to approve or not to approve operations specifications.

(2) In the case of significant negative findings and/or major deficiencies relevant to its evaluation of the foreign air operator, the CCAA will not approve the foreign air operator's Application for Commercial Air Transport Operations by a Foreign Air Operator and will not issue a Document of Authorization, Conditions, and Limitations to the foreign air operator.

IS 10.8.1.1 APPLICATION FOR REGISTRATION OR APPROVAL TO OPERATE REMOTELY PILOTED AIRCRAFT IN THE TERRITORY OF CURAÇAO

(a) The application form to be used by a foreign air operator that intends to apply for Approval to operate RPA in the territory of Curaçao is obtainable at the Authority.

This section is applicable to a remotely piloted aircraft system (RPAS) engaged in international air navigation, shall not be operated without an appropriate authorization from the State from which the take-off of the remotely piloted aircraft (RPA) is made (ICAO Annex 2 Rules of the Air, Appendix 4, paragraph 1).

This section is also applicable to a non-recreational remotely piloted aircraft system (RPAS) operation as determined by a Risk Assessment performed by the CCAA.

(b) The application form to be used by an operator that intends to apply for Registration to operate a personal recreational RPA locally in the territory of Curaçao is obtainable at the Authority. Additional requirements of the Bureau Telecommunications & Post apply.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 11 – AERIAL WORK

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PART 11 – AERIAL WORK

11.1 GENERAL

11.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for those operators that are conducting aerial work and operations that are considered to be aerial work in Curaçao.

(b) All persons who conduct aerial work in Curaçao shall, at all times, continue in compliance with the certification requirements of this part.

(c) All persons who conduct aerial work in Curaçao shall, at all times, continue in compliance with the applicable airworthiness requirements and operating rules of this part, except where this part grants relief from those requirements.

(d) All persons who conduct remotely piloted aircraft (RPA) aerial work in Curaçao shall, at all times, continue in compliance with:

(1) The RPA requirements in 8.8.1.33 of these regulations;

(2) The RPA requirements for foreign air operators in Part 10 of these regulations;

(3) The personnel licensing requirements for RPA in Part 2 of these regulations; and

(4) The applicable requirements of this part, except where this part may be less prescriptive than 8.8.1.33 of these regulations.

(e) A person operating an RPA and its remotely piloted aircraft systems (RPAS), registered in Curaçao or holding an operator certificate from Curaçao, shall:

(1) Not operate in Curaçao without appropriate authorisation from the Authority;

(2) Not engage in international air navigation without appropriate authorisation from the State from which the take-off of the RPA is made;

(3) Not operate across or within the territory of another State without special authorisation issued by each State, and shall be obtained authorisation prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned;

(4) Not operate over the high seas without prior coordination with the appropriate air traffic service authority, and shall obtain authorisation prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned;

(5) Operate in accordance with conditions specified by the State of Registry, the State of the Operator, if different from the State of Registry, or the State(s) the flight is to operate within; and

(6) Ensure that the RPAS meets the performance and equipment carriage requirements for the specific airspace in which the flight is to operate.

(f) All persons who intend to conduct RPA aerial work in Curaçao shall submit an application to the Authority on a form and in a manner as prescribed in IS 11.1.1.1(F).

(g) All foreign air operators who intend to conduct RPA aerial work in Curaçao shall submit an application to the Authority on a form and in a manner as prescribed in IS 10.8.1.1(a).

11.1.1.2 DEFINITIONS

(a) Definitions concerning the Subparts other than 11.2 are contained in Part 1.

(b) For the purposes of Subpart 11.2, the following definitions shall apply:

(1) **Approved parachute.** A parachute approved by the CAA of an EASA Member State or a parachute manufactured under a type certificate or an FAA Technical Standard Order (C-23 series), or a personnel-carrying military parachute (other than a high altitude, high speed, or ejection type) identified by a US Navy Air Facility, a US Army Air Field, and US Air Force-Navy drawing number, a US Army Air Field order number, or any other military designation or specification number.

(2) **Automatic Activation Device.** A self-contained mechanical or electro-mechanical device that is attached to the interior of the reserve parachute container, which automatically initiates parachute deployment of the reserve parachute at a pre-set altitude, time, percentage of terminal velocity, or combination thereof.

(3) **Direct Supervision.** A certificated rigger who personally observes a non-certificated person packing a main parachute to the extent necessary to ensure that it is being done properly, and takes responsibility for that packing.

(4) **Drop Zone.** means any pre-determined area with a radius of 3.7 km (2 nm) around the center of the target landing area with the column of airspace above in the form of a cylinder with a height equal to the maximum height from which parachutists intend to jump or objects are dropped.

(5) **Foreign parachutist.** means a parachutist who is neither a Curaçao citizen or a resident alien and is participating in parachute operations within Curaçao.

(6) **Freefall.** means the portion of a parachute jump or drop between aircraft exit and parachute deployment in which the parachute is activated manually by the parachutist at the parachutist's discretion or automatically, or, in the case of an object, is activated automatically.

(7) **Main parachute.** means a parachute worn as the primary parachute used or intended to be used in conjunction with a reserve parachute.

(8) **Object.** means any item other than a person that descends to the surface from an aircraft in flight when a parachute is used or is intended to be used during all or part of the descent.

(9) **Parachute.** means a cloth canopy device attached to the body of a person (or an object) by strings, which enables the person to jump (or the object to be dropped) from an aircraft while in flight, that fills with air and act as a brake, thus allows the person (or object) to float safely to the ground.

(10) **Parachute drop.** means the descent of an object to the surface from an aircraft in flight when a parachute is used or intended to be used during all or part of that descent.

(11) **Parachute jump.** means a parachute operation that involves the descent of one or more persons to the surface from an aircraft in flight when an aircraft is used or intended to be used during all or part of that descent.

(12) **Parachute operation.** means the performance of all activity for the purpose of, or in support of, a parachute jump or a parachute drop. This parachute operation can involve, but

is not limited to, the following persons: parachutist, parachutist in command and passenger in tandem parachute operations, drop zone or owner or operator, jump master, certificated parachute rigger, or pilot.

(13) **Parachutist.** means a person who intends to exit an aircraft while in flight using a single-harness, dual parachute system to descend to the surface.

(14) **Parachutist in command.** means the person responsible for the operation and safety of a tandem parachute operation.

(15) **Passenger parachutist.** means a person who boards an aircraft, acting as other than the parachutist in command of a tandem parachute operation, with the intent of exiting the aircraft while in-flight using the forward harness of a dual harness tandem parachute system to descend to the surface.

(16) **Pilot chute.** means a small parachute used to initiate and/or accelerate deployment of a main or reserve parachute.

(17) **Ram-air parachute.** means a parachute with a canopy consisting of an upper and lower surface that is inflated by ram air entering through specially designed openings in the front of the canopy to form a gliding airfoil.

(18) **Reserve parachute.** means an approved parachute worn for emergency use to be activated only upon failure of the main parachute or in any other emergency where use of the main parachute is impractical or use of the main parachute would increase risk.

(19) **Single-harness.** dual parachute system. means the combination of a main parachute, approved reserve parachute, and approved single person harness and dual-parachute container. This parachute system may have an operational automatic activation device installed.

(20) **Tandem parachute operation.** means a parachute operation in which more than one person simultaneously uses the same tandem parachute system while descending to the surface from an aircraft in flight.

(21) **Tandem parachute system.** means the combination of a main parachute, approved reserve parachute, and approved harness and dual parachute container, and a separate approved forward harness for a passenger parachutist. This parachute system must have an operational automatic activation device installed.

(22) **Target Landing Area.** The terrain on which the parachutist intends to land after making an intentional parachute jump or the terrain on which the object is intended to touch down after the parachute drop. The position of the center-point of a target landing area is expressed in World Geodetic System 1984 (WGS 84) latitude and longitude coordinates.

11.1.1.3 ABBREVIATIONS

(a) The following abbreviations are used in this part:

(1) **AGL** – above ground level

(2) **AIP** – Aeronautical Information Publication

(3) **ATC** – air traffic control

(4) **ATPL** – airline transport pilot licence

(5) **CAA** – civil aviation authority

(6) **CG** – centre of gravity

(7) **CPL** – commercial pilot licence

(8) **EASA** – European Union Aviation Safety Agency

(9) **FAA** – Federal Aviation Administration (USA)

(10) **IFR** – instrument flight rules

(11) **NOTAM** – Notice To Airmen

(12) **PIC** – pilot-in-command

(13) **PPL** – private pilot licence

(14) **RPA** – remotely piloted aircraft

(15) **VFR** – visual flight rules

11.2 PARACHUTE OPERATIONS

11.2.1 *GENERAL*

11.2.1.1 APPLICABILITY

(a) Except as provided in Paragraph (b) and (c) of this Subsection, this Subpart prescribes rules governing parachute operations conducted in Curaçao.

(b) This Subpart does not apply to a parachute operation conducted:

(1) In response to an in-flight emergency; or

(2) To meet an emergency on the surface when it is conducted.

(c) Subsections 11.2.1.2, 11.2.1.4, 11.2.2.1, 11.2.2.2, 11.2.2.3, 11.2.2.4 through 11.2.2.6 and 11.2.2.7(a)(1) of this part do not apply to a parachute operation conducted by a member of an Armed Force:

(1) Over or within a restricted area when that area is under the control of an Armed Force;

(2) During military operations.

11.2.1.2 RESTRICTION

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from an aircraft, if that operation creates a hazard to air traffic or to persons or property on the surface.

11.2.1.3 USE OF ALCOHOL AND DRUGS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a person to conduct a parachute operation from that aircraft, if that person is or appears to be under the influence of:

(1) Alcohol; or

(2) Any drug that affects that person's faculties in any way contrary to safety.

11.2.1.4 INSPECTIONS

(a) The Authority may inspect any parachute operation to which this part applies (including inspections at the site where the parachute operation is being conducted) to determine compliance with the regulations of this Subpart.

11.2.1.5 PARACHUTE JUMP DROP ZONES

(a) No person may conduct regular parachute operations, and no pilot in command of an aircraft may allow a person to conduct regular parachute operations at any parachute drop zone, unless:

(1) a written permission has been granted by the air traffic control organization concerned, after the air traffic control organization concerned has consulted with the Authority; and

(2) the parachute drop zone is announced as such to airmen by means of a publication in the AIP or a NOTAM.

(b) No person may conduct incidental parachute operations, and no pilot in command of an aircraft may allow a person to conduct incidental parachute operations at any part of the airspace as a parachute drop zone, unless announced as such to airmen by means of a publication in a NOTAM.

(c) The incidental use of a parachute drop zone that is located wholly or partly within one (or more) air traffic control area(s), permission must be obtained from the air traffic control service(s) concerned after the air traffic control service concerned has consulted with the Authority.

(d) The Authority may, for security and safety reasons, instruct the air traffic control service not to grant permission as referred to in the first paragraph.

(e) Before the start of the flight, the pilot in command of the aircraft from which the parachute jumps are performed must ensure that the parachute jump area has been made known to airmen by means of a publication in the AIP or a NOTAM.

(f) A flight, or part of a flight, during which one or more parachute jumps will be performed in air traffic control area(s) within which VFR flights obtain air traffic control service, shall be conducted in accordance with the following requirements:

(1) the relevant part of the flight is conducted in accordance with the rules applicable to controlled VFR flight;

(2) the area and period within which and the height(s) from which parachute jumps are performed are stated in the flight plan;

(3) a provisional clearance is obtained from the relevant air traffic control service before the start of the flight;

(4) if parachute jumps or series of successive parachute jumps are to be performed at intervals, this shall be reported to the air traffic control service concerned upon first radio contact;

(5) Immediately before performing the parachute jumps, a final clearance for this purpose is obtained from the air traffic control service concerned.

11.2.2 *OPERATING RULES*

11.2.2.1 RADIO EQUIPMENT AND USE REQUIREMENTS

(a) Except when otherwise authorized by air traffic control:

(1) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, in or into controlled airspace unless, during that flight:

(i) The aircraft is equipped with a functioning two-way radio communication system appropriate to the air traffic control facilities being used; and

(ii) Radio communications have been established between the aircraft and the air traffic control facility having jurisdiction over the affected airspace of the first intended exit altitude at least 5 minutes before the parachute operation begins. The pilot in command must establish radio communications to receive information regarding air traffic activity in the vicinity of the parachute operation.

(2) The pilot in command of an aircraft used for any parachute operation in or into controlled airspace must, during each flight:

(i) Continuously monitor the appropriate frequency of the aircraft's radio communications system from the time radio communications are first established between the aircraft and air traffic control, until the pilot advises air traffic control that the parachute operation has ended for that flight;

(ii) Advise air traffic control when the last parachutist or object leaves the aircraft; and

(iii) Advise air traffic control when the last parachutist or object has landed.

(b) Parachute operations must be aborted if, prior to receipt of a required air traffic control authorization, or during any parachute operation in or into controlled airspace, the required radio communications system is or becomes inoperative.

11.2.2.2 INFORMATION REQUIRED AND NOTICE OF CANCELLATION OR POSTPONEMENT OF A PARACHUTE OPERATION

(a) Each person requesting an authorization under 11.2.2.5(b) and 11.2.2.7(a)(2) of this Subpart and each person submitting a notification under 11.2.2.7(a)(3) of this Subpart must provide the following information (on an individual or group basis):

(1) The date and time the parachute operation will begin;

(2) The radius of the drop zone around the target expressed in nautical miles;

(3) The location of the center of the drop zone in relation to:

(i) The nearest VOR facility in terms of the VOR radial on which it is located and its distance in nautical miles from the VOR facility when that facility is 30 nautical miles or less from the drop zone target; or

(ii) the nearest VOR.

(4) Each altitude above mean sea level at which the aircraft will be operated when parachutists or objects exits the aircraft;

(5) The duration of the intended parachute operation;

(6) The name, address, and telephone number of the person who requests the authorization or gives notice of the parachute operation;

(7) The registration mark of the aircraft to be used;

(8) In case the aircraft to be used is a foreign registered aircraft, the following documents must also be presented:

(i) A copy of the Certificate of Registry;

(ii) A copy of the Certificate of Airworthiness; and

(iii) A copy of the Certificate of Insurance.

(9) Each holder of a certificate of authorization issued under 11.2.2.5(b) and 11.2.2.7(b) of this Subpart must present that certificate for inspection upon the request of the Authority or any local official.

(b) Each person requesting an authorization under 11.2.2.5(b) and 11.2.2.7(a)(2) of this part and each person submitting a notice under 11.2.2.7(a)(3) of this Subpart must promptly notify the air traffic control facility having jurisdiction over the affected airspace if the proposed or scheduled parachute operation is canceled or postponed.

11.2.2.3 FLIGHT VISIBILITY AND CLEARANCE FROM CLOUD REQUIREMENTS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft:

(1) Into or through a cloud; or

(2) When the flight visibility or the distance from any cloud is less than that prescribed in the following table:

Altitude	Flight visibility (nautical miles)	Distance from clouds
1,200 feet or less above the surface regardless of the MSL altitude.	3	500 feet below, 1,000 feet above, 2,000 feet horizontal.
More than 1,200 feet above the surface but less than 10,000 feet MSL.	3	500 feet below, 1,000 feet above, 2,000 feet horizontal.
More than 1,200 feet above the surface and at or above 10,000 feet MSL.	5	1,000 feet below, 1,000 feet above, 1 mile horizontal.

11.2.2.4 PARACHUTE OPERATIONS BETWEEN SUNSET AND SUNRISE

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a person to conduct a parachute operation from an aircraft between sunset and sunrise, unless such operation has been specifically authorized by the Authority.

(b) The person or object descending from the aircraft shall display a light that is visible for at least 3 nautical miles.

(c) The light required by paragraph (b) of this Subsection must be displayed from the time that the person or object is under a properly functioning open parachute until that person or object reaches the surface.

11.2.2.5 PARACHUTE OPERATIONS OVER OR INTO A CONGESTED AREA OR AN OPEN-AIR ASSEMBLY OF PERSONS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, over or into a congested area of a city, town, or settlement, or an open-air assembly of persons unless a certificate of authorization for that parachute operation has been issued under this Subpart. However, a parachutist may drift over a congested area or an open-air assembly of persons with a fully deployed and properly functioning parachute if that parachutist is at a sufficient altitude to avoid creating a hazard to persons or property on the surface.

(b) An application for a certificate of authorization issued under this Subpart must:

(1) Be made in the form and manner prescribed by the Authority, and

(2) Contain the information required in 11.2.2.2(a) of this Subpart.

(c) Each holder of, and each person named as a participant in a certificate of authorization issued under this section must comply with all requirements contained in the certificate of authorization

(d) Each holder of a certificate of authorization issued under this Section must present that certificate for inspection upon the request of the Authority, or local official.

11.2.2.6 PARACHUTE OPERATIONS OVER OR ONTO AIRPORTS

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft, over Hato airport unless.

(b) Prior approval has been obtained from the management of the airport to conduct parachute operations over or on that airport.

(c) Approval has been obtained from the control tower to conduct parachute operations over or onto that airport.

(d) Two-way radio communications are maintained between the pilot of the aircraft involved in the parachute operation and the control tower of the airport over or onto which the parachute operation is being conducted.

(e) A parachutist may drift over that airport with a fully deployed and properly functioning parachute if the parachutist is at least 2,000 feet above that airport's traffic pattern, and avoids creating a hazard to air traffic or to persons and property on the ground.

11.2.2.7 PARACHUTE OPERATIONS IN DESIGNATED AIRSPACE

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft:

(1) Over or within a restricted area or prohibited area unless the controlling agency of the area concerned has authorized that parachute operation;

(2) Within or into a Class A, B, C, D airspace area without, or in violation of the requirements of, an air traffic control authorization issued under this section;

(3) Except as provided in paragraph (c) and (d) of this section, within or into Class E or G airspace area unless the air traffic control facility having jurisdiction over the airspace at the first intended exit altitude is notified of the parachute operation no earlier than 24 hours before or no later than 1 hour before the parachute operation begins.

(b) Each request for a parachute operation authorization or notification required under this section must be submitted to the air traffic control facility having jurisdiction over the airspace at the first intended exit altitude and must include the information prescribed by 11.2.2.2(a) of this Subpart.

(c) For the purposes of paragraph (a)(3) of this section, air traffic control facilities may accept a written notification from an organization that conducts parachute operations and lists the scheduled series of parachute operations to be conducted over a stated period of time not longer than 12 calendar months. The notification must contain the information prescribed by 11.2.2.2 (a) of this Subpart, identify the responsible persons associated with that parachute operation, and be submitted at least 15 days, but not more than 30 days, before the parachute operation begins. The Authority may revoke the acceptance of the notification for any failure of the organization conducting the parachute operations to comply with its requirements certificate holder shall ensure that all single-engine aircraft, while over a congested area, operate.

(d) Paragraph (a)(3) of this Subsection does not apply to a parachute operation conducted by a member of an Armed Force within a restricted area that extends upward from the surface when that area is under the control of an Armed Force.

11.2.3 *PARACHUTE EQUIPMENT AND PACKING*

11.2.3.1 USE OF SINGLE –HARNESS, DUAL PARACHUTE SYSTEMS

(a) No person may conduct a parachute operation using a single-harness, dual-parachute system, and no pilot in command of an aircraft may allow any person to conduct a parachute operation from that aircraft using a single-harness, dual-parachute system, unless that system has at least one main parachute, one approved reserve parachute, and one approved single person harness and container that are packed as follows.

(b) The main parachute must have been packed within 180 days before the date of its use by a certificated parachute rigger, the person making the next jump with that parachute, or a non-certificated person under the direct supervision of a certificated parachute rigger.

(c) The reserve parachute must have been packed by a certificated parachute rigger:

(1) Within 180 days before the date of its use, if its canopy, shroud, and harness are composed exclusively of nylon, rayon, or similar synthetic fiber or material that is substantially resistant to damage from mold, mildew, and other fungi, and other rotting agents propagated in a moist environment; or

(2) Within 60 days before the date of its use, if it is composed of any amount of silk, pongee, or other natural fiber, or material not specified in paragraph (c)(1) of this Subsection.

(d) If installed, the automatic activation device must be maintained in accordance with manufacturer instructions for that automatic activation device

11.2.3.2 USE OF TANDEM PARACHUTE SYSTEMS

(a) No person may conduct a parachute operation using a tandem parachute system, and no pilot in command of an aircraft may allow any person to conduct a parachute operation from that aircraft using a tandem parachute system, unless:

(1) One of the parachutists using the tandem parachute system is the parachutist in command, and meets the following requirements:

(i) Has a minimum of 3 years of experience in parachuting, and must provide documentation that the parachutist;

(ii) Has completed a minimum of 500 freefall parachute jumps using a ram-air parachute; and

(iii) Holds a master parachute license issued by an organization recognized by the CCAA; and

(iv) Has successfully completed a tandem instructor course given by the manufacturer of the tandem parachute system used in the parachute operation or a course acceptable to the Authority;

(v) Has been certified by the appropriate parachute manufacturer or tandem course provider as being properly trained on the use of the specific tandem parachute system to be used.

(2) The person acting as parachutist in command:

(i) Has briefed the passenger parachutist before boarding the aircraft. The briefing must include the procedures to be used in case of an emergency with the aircraft or after exiting the aircraft, while preparing to exit and exiting the aircraft, freefall, operating the parachute after freefall, landing approach, and landing

(ii) Uses the harness position prescribed by the manufacturer of the tandem parachute equipment.

(b) No person may make a parachute jump with a tandem parachute system unless:

(1) The main parachute has been packed by a certificated parachute rigger, the parachutist in command making the next jump with that parachute, or a person under the direct supervision of a certificated parachute rigger;

(2) The reserve parachute has been packed by a certificated parachute rigger in accordance with 11.2.3.1(b) of this part

(3) The tandem parachute system contains an operational automatic activation device for the reserve parachute, approved by the manufacturer of that tandem parachute system. The device must:

(i) Have been maintained in accordance with manufacturer instructions; and

(ii) Be armed during each tandem parachute operation.

(4) The passenger parachutist is provided with a manual main parachute activation device and instructed on the use of that device, if required by the owner/operator;

(5) The main parachute is equipped with a single-point release system;

(6) The reserve parachute meets Technical Standard Order C23 specifications.

11.2.3.3 USE OF STATIC LINES

(a) Except as provided in paragraph (c) of this section, no person may conduct a parachute operation using a static line attached to the aircraft and the main parachute unless an assist device, described and attached as follows, is used to aid the pilot chute in performing its function, or, if no pilot chute is used, to aid in the direct deployment of the main parachute canopy. The assist device must:

(1) Be long enough to allow the main parachute container to open before a load is placed on the device.

(2) Have a static load strength of:

(i) At least 28 pounds but not more than 160 pounds if it is used to aid the pilot chute in performing its function; or

(ii) At least 56 pounds but not more than 320 pounds if it is used to aid in the direct deployment of the main parachute canopy; and

(3) Be attached as follows:

(i) At one end, to the static line above the static-line pins or, if static-line pins are not used, above the static-line ties to the parachute cone;

(ii) At the other end, to the pilot chute apex, bridle cord, or bridle loop, or, if no pilot chute is used, to the main parachute canopy.

(b) No person may attach an assist device required by paragraph (a) of this Subsection to any main parachute unless that person is a certificated parachute rigger or that person makes the next parachute jump with that parachute;

(c) An assist device is not required for parachute operations using direct-deployed, ram-air parachutes.

11.2.3.4 FOREIGN PARACHUTISTS AND EQUIPMENT

(a) No person may conduct a parachute operation, and no pilot in command of an aircraft may allow a parachute operation to be conducted from that aircraft with an unapproved foreign parachute system unless:

(1) The parachute system is worn by a foreign parachutist who is the owner of that system;

(2) The parachute system is of a single-harness dual parachute type;

(3) The parachute system meets the civil aviation authority requirements of the foreign parachutist's country;

(4) All foreign non-approved parachutes deployed by a foreign parachutist during a parachute operation conducted under this section shall be packed as follows:

(i) The main parachute must be packed by the foreign parachutist making the next parachute jump with that parachute, a certificated parachute rigger, or any other person acceptable to the Authority;

(ii) The reserve parachute must be packed in accordance with the foreign parachutist's civil aviation authority requirements, by a certificated parachute rigger, or any other person acceptable to the Authority.

11.3 ROTORCRAFT EXTERNAL-LOAD OPERATIONS

11.3.1 *GENERAL*

11.3.1.1 APPLICABILITY

(a) This subpart prescribes:

(1) Airworthiness requirements for rotorcraft used in external-load operations; and

(2) Operating and certification rules governing the conduct of rotorcraft external-load operations in Curaçao.

(b) The certification requirements of this part do not apply to:

(1) Rotorcraft manufacturers when developing external-load attaching means;

(2) Manufacturers demonstrating compliance of equipment utilised under this part;

(3) Operations conducted by a person demonstrating compliance for the issuance of a certificate under this part;

(4) Training flights conducted in preparation for the demonstration of compliance with this part; or

(5) A military organization conducting operations with military aircraft.

(c) For the purpose of this part, a person other than a crew member or a person who is essential and directly connected with the external-load operation may be carried only in approved Class D rotorcraft-load combinations.

11.3.2 *CERTIFICATION RULES*

11.3.2.1 CERTIFICATE REQUIRED

(a) No person subject to this part may conduct rotorcraft external-load operations within Curaçao without, or in violation of the special limitations and specific approvals of, a rotorcraft external-load operator certificate issued by the Authority.

11.3.2.2 DURATION OF CERTIFICATE

(a) Unless sooner surrendered, suspended, or revoked, a rotorcraft external-load operator certificate shall expire at the end of the 24th month after the month in which it is issued or renewed.

11.3.2.3 APPLICATION FOR CERTIFICATE ISSUANCE OR RENEWAL

(a) Application for an original certificate or renewal of a certificate issued under this part shall be made on a form and in a manner prescribed by the Authority.

11.3.2.4 CERTIFICATION REQUIREMENTS

(a) The Authority will issue a rotorcraft external-load operator certificate to an applicant that meets the requirements of this subpart for that certificate.

(b) The Authority will issue authorisation to operate specified rotorcraft with those classes of rotorcraft-load combinations for which the applicant or certificate holder qualifies under the applicable requirements of this subpart.

11.3.2.5 ROTORCRAFT

(a) An applicant shall have the exclusive use of at least one rotorcraft that:

(1) Is type certificated under, and meets the requirements of, those regulations that prescribe requirements for rotorcraft external-load operations;

(2) Complies with the certification requirements in this subpart that apply to the rotorcraft-load combinations for which authorisation is requested; and

(3) Has a valid certificate of registration and a valid standard or restricted category certificate of airworthiness.

(b) For the purposes of this subsection, a person has exclusive use of a rotorcraft if he or she has sole possession, control, and use of it for flight, as owner, or has a written agreement (including arrangements for the performance of required maintenance) giving him or her that possession, control, and use for at least 6 consecutive months.

(c) For the purposes of this subsection, Class A, B, C, and D are defined in subpart 1.5 of these regulations under rotorcraft-load combinations.

11.3.2.6 PERSONNEL

(a) An applicant shall hold, or shall have available the services of at least one person who holds, a current CPL or ATPL issued by the Authority, with a rating appropriate for the rotorcraft to be used.

(b) An applicant shall designate one pilot, who may be the applicant, as chief pilot for rotorcraft external-load operations.

(c) An applicant may designate qualified pilots as assistant chief pilots to perform the functions of the chief pilot when the chief pilot is not readily available.

(d) The chief pilot and assistant chief pilots shall be acceptable to the Authority, and each shall hold a current CPL or ATPL, with a rating appropriate for the rotorcraft to be used.

(e) The holder of a rotorcraft external-load operator certificate shall report any change in designation of chief pilot or assistant chief pilot immediately to the Authority.

(f) A newly designated chief pilot shall comply with the knowledge and skill requirements of this subpart within 30 days or the operator shall not conduct further operations under the rotorcraft external-load operator certificate, unless otherwise authorised by the Authority.

11.3.2.7 AMENDMENT OF CERTIFICATE

(a) The holder of a rotorcraft external-load operator certificate may apply to the Authority for an amendment of the certificate to add or delete a rotorcraft-load combination authorisation.

(b) The holder of a rotorcraft external-load operator certificate may apply for an amendment to add or delete a rotorcraft-load combination authorisation by submitting to the Authority a new list of rotorcraft, by registration number, with the classes of rotorcraft-load combinations for which authorisation is requested.

11.3.2.8 AVAILABILITY, TRANSFER, AND SURRENDER OF CERTIFICATE

(a) Each holder of a rotorcraft external-load operator certificate shall keep that certificate and a list of authorised rotorcraft at the main base of operations and shall make it available for inspection by the Authority upon request.

(b) Each person conducting a rotorcraft external-load operation shall carry a copy of the rotorcraft external-load operator certificate in each rotorcraft used in the operation.

(c) The holder of a rotorcraft external-load operator certificate shall return the certificate to the Authority:

(1) If the Authority suspends or revokes the certificate; or

(2) If the certificate holder discontinues operations under the certificate and does not resume operations within 2 years.

11.3.3 *OPERATING RULES AND RELATED REQUIREMENTS*

11.3.3.1 OPERATING RULES

(a) No person may conduct a rotorcraft external-load operation without, or contrary to, the Rotorcraft-Load Combination Flight Manual prescribed in 11.3.4.4 of this part.

(b) No person may conduct a rotorcraft external-load operation unless:

(1) The rotorcraft complies with 11.3.2.5 of this part; and

(2) The rotorcraft and rotorcraft-load combination are authorised under the rotorcraft external-load operator certificate.

(c) Before a person may operate a rotorcraft with an external-load configuration that differs substantially from any that person has previously carried with that type of rotorcraft (whether or not the rotorcraft-load combination is of the same class), that person shall conduct, in a manner that shall not endanger persons or property on the surface, those of the following flight operational checks that the Authority determines are appropriate to the rotorcraft-load combination:

(1) Make a determination that the mass of the rotorcraft-load combination and the location of its CG are within approved limits and that the external load is securely fastened and does not interfere with devices provided for its emergency release.

(2) Make an initial lift-off and verify that controllability is satisfactory.

(3) While hovering, verify that directional control is adequate.

(4) Accelerate into forward flight to verify that no attitude (whether of the rotorcraft or of the external load) is encountered in which the rotorcraft is uncontrollable or which is otherwise hazardous.

(5) In forward flight, check for hazardous oscillations of the external load, but if the external load is not visible to the pilot, other crew members or ground personnel may make this check and signal the pilot.

(6) Increase the forward airspeed and determine an operational airspeed at which no hazardous oscillation or hazardous aerodynamic turbulence is encountered.

(d) Notwithstanding the requirements of Part 8, the holder of a rotorcraft external-load operator certificate may conduct rotorcraft external-load operations over congested areas if those operations are conducted without hazard to persons or property on the surface and comply with the following:

(1) The operator shall develop a plan for each complete operation and shall obtain approval for the operation from the Authority; and

Note: The plan shall include an agreement with the appropriate political subdivision that local officials will exclude unauthorised persons from the area in which the operation will be conducted; coordination with ATC, if necessary; and a detailed chart depicting the flight routes and altitudes.

(2) Each flight shall be conducted at an altitude, and on a route, that shall allow a jettisonable external load to be released and the rotorcraft to be landed in an emergency without hazard to persons or property on the surface.

(e) Notwithstanding the requirements of Part 8, and except as provided by paragraph 11.3.4.3(a)(4) of this part, the holder of a rotorcraft external-load operator certificate may conduct external-load operations, including approaches, departures, and load-positioning manoeuvres necessary for the operation, below 500 ft above the surface and closer than 500 ft to persons, vessels, vehicles, and structures, if the operations are conducted without creating a hazard to persons or property on the surface.

(f) No person may conduct rotorcraft external-load operations under IFR unless specifically approved by the Authority. However, under no circumstances may a person be carried as part of the external-load under IFR.

11.3.3.2 CARRIAGE OF PERSONS

(a) No certificate holder may allow a person to be carried during rotorcraft external-load operations unless that person:

(1) Is a flight crew member;

(2) Is a flight crew member trainee;

(3) Performs an essential function in connection with the external-load operation; or

(4) Is necessary to accomplish the work activity directly associated with that operation.

(b) The PIC shall ensure that all persons are briefed before take-off on all pertinent procedures to be followed (including normal, abnormal, and emergency procedures) and equipment to be used during the external-load operation.

11.3.3.3 CREW MEMBER TRAINING, CURRENCY, AND TESTING REQUIREMENTS

(a) No certificate holder may use, nor may any person serve as, a pilot in rotorcraft external-load operations unless that person:

(1) Has successfully demonstrated to the Authority knowledge and skill with respect to the rotorcraft-load combination; and

(2) Has in his or her personal possession a letter of competency or an appropriate logbook entry indicating compliance with paragraph 11.3.3.3(a)(1) of this subsection.

(b) No certificate holder may use, nor may any person serve as, a crew member or other operations personnel in Class D operations unless within the preceding 12 calendar months that person has successfully completed either an approved initial or continuation training programme.

(c) Notwithstanding paragraph 11.3.3.3(b) of this subsection, a person who has performed a rotorcraft external-load operation of the same class and in an aircraft of the same type within the past 12 calendar months need not undergo continuation training.

11.3.4 *AIRWORTHINESS REQUIREMENTS*

11.3.4.1 FLIGHT CHARACTERISTICS REQUIREMENTS

(a) The applicant shall demonstrate to the Authority, by performing the following operational flight checks, as applicable, that the rotorcraft-load combination has satisfactory flight characteristics, unless these operational flight checks have been demonstrated previously and the rotorcraft-load combination flight characteristics were satisfactory. For the purposes of this demonstration, the external-load mass (including the external-load attaching means) is the maximum mass for which authorisation is requested.

(b) CLASS A ROTORCRAFT-LOAD COMBINATIONS. The operational flight check shall consist of at least the following manoeuvres:

(1) Take-off and landing;

(2) Demonstration of adequate directional control while hovering;

(3) Acceleration from a hover; and

(4) Horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested.

(c) CLASS B AND CLASS D ROTORCRAFT-LOAD COMBINATIONS. The operational flight check shall consist of at least the following manoeuvres:

(1) Pickup of the external load;

(2) Demonstration of adequate directional control while hovering;

(3) Acceleration from a hover;

(4) Horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested;

(5) Demonstration of appropriate lifting device operation; and

(6) Maneuvering of the external load into release position and release of the external load, under probable flight operation conditions, by means of each of the quick-release controls installed on the rotorcraft.

(d) CLASS C ROTORCRAFT-LOAD COMBINATIONS. For Class C rotorcraft-load combinations used in wire-stringing, cable-laying, or similar operations, the operational flight check shall consist of the manoeuvres, as applicable, prescribed in paragraph 11.3.4.1(c) of this subsection.

11.3.4.2 STRUCTURES AND DESIGN

(a) EXTERNAL-LOAD ATTACHING MEANS. Each external-load attaching means shall be approved by the Authority.

(b) QUICK-RELEASE DEVICES. Each quick-release device shall be approved by the Authority.

(c) MASS AND CENTRE OF GRAVITY.

(1) MASS. The total mass of the rotorcraft-load combination shall not exceed the total mass approved for the rotorcraft during its type certification.

(2) CG. The location of the CG shall, for all loading conditions, be within the range established for the rotorcraft during its type certification. For Class C rotorcraft-load combinations, the magnitude and direction of the loading force shall be established at those values for which the effective location of the CG remains within its established range.

11.3.4.3 OPERATING LIMITATIONS

(a) In addition to the operating limitations set forth in the manufacturer's approved Rotorcraft Flight Manual, and to any other limitations the Authority may prescribe, the operator shall establish at least the following limitations and shall set them forth in its Rotorcraft-Load Combination Flight Manual for rotorcraft-load combination operations:

(1) The rotorcraft-load combination shall be operated only within the mass and CG limitations established in accordance with this subpart;

(2) The rotorcraft-load combination shall not be operated with an external-load mass exceeding that used in showing compliance with this subpart;

(3) The rotorcraft-load combination shall not be operated at airspeeds greater than those established in accordance with this subpart;

(4) No person may conduct an external-load operation under this part with a rotorcraft type certificated in the restricted category over a densely populated area, in a congested airway, or near a busy aerodrome where passenger transport operations are conducted; and

(5) The rotorcraft-load combination of Class D shall be conducted only in accordance with the following:

(i) The rotorcraft to be used shall be type certificated under transport Category A for the operating mass and shall provide hover capability with one engine inoperative at that operating mass and altitude;

(ii) The rotorcraft shall be equipped to allow direct radio intercommunication among required crew members;

(iii) The personnel lifting device shall be approved by the Authority; and

(iv) The lifting device shall have an emergency release requiring two distinct actions.

11.3.4.4 ROTORCRAFT-LOAD COMBINATION FLIGHT MANUAL

(a) The applicant shall prepare a Rotorcraft-Load Combination Flight Manual and shall submit it for approval by the Authority. The limiting height-speed envelope data need not be listed as operating limitations. The manual shall set forth:

(1) Operating limitations, procedures (normal and emergency), performance, and other information established under this subpart;

(2) The class of rotorcraft-load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with this subpart; and

(3) In the information section of the Rotorcraft-Load Combination Flight Manual:

(i) Information on any peculiarities discovered when operating particular rotorcraft-load combinations;

(ii) Precautionary advice regarding static electricity discharges for Class B, Class C, and Class D rotorcraft-load combinations; and

(iii) Any other information essential for safe operation with external loads.

11.3.4.5 MARKINGS AND PLACARDS

(a) The following markings and placards shall be displayed conspicuously and shall be such that they cannot be easily erased, disfigured, or obscured:

(1) A placard (displayed in the flight deck or cabin) stating the class of rotorcraft-load combination and the occupancy limitation for which the rotorcraft has been approved; and

(2) A placard, marking, or instruction (displayed next to the external-load attaching means) stating the maximum external load approved.

11.4 RESERVED

11.5 BANNER TOWING

11.5.1.1 APPLICABILITY

(a) This subpart applies to those operations involving towing aircraft banners or other signs, lit or unlit.

11.5.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

(c) A helicopter operating under the requirements of 11.3 of this part may tow a banner using an external-load attaching means without a certificate of waiver or equivalent authorisation only if the operator has at least a Class B authorisation on the operating certificate.

11.5.1.3 AIRCRAFT REQUIREMENTS

(a) No person may operate an aircraft that is towing a banner unless the aircraft is equipped with a tow hook and release control system that meet the applicable standards of airworthiness.

(b) No person may operate a helicopter that is towing a banner unless the helicopter has a means to prevent the banner from becoming entangled in the helicopter's tail rotor during all phases of flight, including autorotations.

Note: The only way to prevent the banner from tangling in the tail rotor during autorotation may be to jettison the banner.

11.5.1.4 EXPERIENCE AND TRAINING REQUIREMENTS

(a) For non-revenue flights, the pilot of the tow aircraft shall hold at least a valid PPL and shall have a minimum of 200 hours PIC time.

(b) When banner-towing operations are conducted for compensation or hire, the pilot shall have at least a CPL (instrument rating not required) and at least a valid second-class medical certificate.

(c) All pilots engaged in banner-towing operations shall demonstrate competence to the Authority by performing at least one pickup and drop of the maximum number of letters (panels) to be used by the certificate holder.

Note: This demonstration should be observed from the ground to allow the inspector to evaluate the competence of any essential ground personnel as well as the flight operation.

11.5.1.5 OPERATING RULES

(a) All banner-towing operations shall be conducted only:

(1) In VFR weather conditions as described in Part 8 of these regulations; and

(2) Between the hours of official sunrise and official sunset.

(b) No person may conduct banner-towing operations:

(1) Over congested areas or open-air assemblies of persons lower than 1 000 ft; and

(2) Elsewhere lower than the minimum safe altitude requirements of Part 8 of these regulations.

(c) Helicopters may be operated at less than the minimums prescribed in paragraph 11.5.1.5(b) of this subsection if the operation is conducted without hazard to persons or property on the surface.

(d) The certificate holder shall obtain the aerodrome manager's approval to conduct banner-towing operations.

(e) If banner-towing operations take place at an aerodrome with a control tower, the certificate holder shall inform that control tower of the time of the banner-towing operation.

(f) The certificate holder shall notify the appropriate aerodrome officials in advance when banner-towing operations will be in close proximity to an uncontrolled aerodrome.

(g) Only essential crew members shall be carried when conducting banner-towing operations.

(h) When banner-towing operations are conducted over congested areas, the pilot shall exercise due care, so that an emergency release of the banner and/or tow rope shall not cause undue hazard to persons or property on the surface.

(i) Each pilot shall drop the tow rope in a predesignated area at least 500 ft from persons, buildings, parked automobiles, and aircraft.

Note: If the tow plane lands with the rope attached, due care shall be exercised to avoid trailing the rope and endangering other aircraft in the air or persons, property, or aircraft on the surface.

(j) Each pilot conducting banner-towing operations shall carry on board the aircraft a current copy of the certificate of waiver or equivalent authorisation allowing banner-towing operations.

11.6 MOTION PICTURE AND TELEVISION FILMING OPERATIONS

11.6.1.1 APPLICABILITY

(a) This subpart applies to those operations involving motion picture and television filming, appearance in-flight in motion pictures, and airborne direction or production of such filming when those operations are conducted as part of a business enterprise or for compensation or hire.

(b) For purposes of this subpart, “motion picture” shall include film, videos, and live broadcast in any format and the preparation and rehearsal for those operations.

11.6.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.6.1.3 AIRCRAFT REQUIREMENT

(a) In order to be used in motion picture and television filming operations, an aircraft in the experimental category shall have a certificate of airworthiness issued to it for the purpose of exhibition.

11.6.1.4 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct motion picture and television filming operations unless that pilot has:

(1) A CPL with ratings appropriate to the category, class, and type of aircraft to be used under the terms of the authorisation;

(2) At least 500 hours as PIC, including:

(i) At least 20 hours as PIC in the aircraft type;

(ii) A minimum of 100 hours in the category and class of aircraft to be used;

(iii) A minimum of 5 hours as PIC in the make and model of aircraft to be used under the authorisation; and

(3) If the pilot intends to perform acrobatics below 1 500 ft AGL, the pilot shall hold a Statement of Acrobatic Competency for the operations to be performed.

11.6.1.5 OPERATING RULES

(a) Each operator shall conduct motion picture and television filming operations so as not to endanger persons or property on the surface or aircraft in flight.

(b) Each operator shall obtain a certificate of waiver or equivalent authorisation from the Authority if filming sequences require an aircraft to be flown:

(1) In acrobatic flight below 1 500 ft AGL;

(2) Over a congested area;

(3) In controlled airspace; or

(4) In other instances, where a departure from the requirements of Part 8 of these requirements is needed.

(c) The holder of the certificate of waiver or equivalent authorisation shall provide a schedule of events that lists the:

(1) Identification of the aircraft; and

(2) Performers in the sequence of their appearance.

(d) Any manoeuvres added or time changes made to the schedule of events shall be approved by the Authority.

(e) The holder of the certificate of waiver or equivalent authorisation shall develop, have approved by the Authority, and comply with a Motion Picture and Television Filming Operations Manual.

(f) When conducting any motion picture or television filming operation requiring a certificate of waiver or equivalent authorisation, the holder of the certificate or authorisation shall ensure that all reasonable efforts are made to confine spectators to designated areas. If reasonable efforts have been taken and unauthorised persons or vehicles enter the airspace where manoeuvres are being performed during the filming production event, efforts shall be made to remove those persons or vehicles.

11.6.1.6 CONTENTS OF A MOTION PICTURE AND TELEVISION OPERATIONS MANUAL

(a) Each Motion Picture and Television Operations Manual shall contain at least the following:

(1) COMPANY ORGANISATION.

(i) The business name, address, and telephone number of the applicant;

(ii) A list of pilots involved in the filming production, including their pilot licence numbers, grade and class, and date of medical certification; and

(iii) A list of aircraft by make and model.

(2) DISTRIBUTION AND REVISION. Procedures for revising the manual to ensure that it is kept current and procedures for the distribution of the manual to concerned personnel.

(3) PERSONS AUTHORISED. Procedures for ensuring that no persons, except those persons consenting to be involved and necessary for the filming production, are allowed within 150 m (500 ft) of the filming production area.

(4) AREA OF OPERATIONS. The area that shall be used during the term of the authorisation.

(5) PLAN OF ACTIVITIES. Procedures for the submission, within 3 days of scheduled filming, of a written plan of activities to the Authority, including at least the following:

(i) Dates and times for all flights;

(ii) The name and phone number of the person responsible for the filming production event;

(iii) The make and model of aircraft to be used and the type of certificate of airworthiness, including category;

(iv) The names of pilots involved in the filming production event;

(v) A statement that permission to conduct the filming production event has been obtained from property owners and/or local officials;

(vi) The signature of the certificate holder or a designated representative; and

(vii) A general outline, or summary, of the production schedule, to include maps or diagrams of the specific filming location, if necessary.

(6) PERMISSION TO OPERATE. Requirements and procedures for obtaining permission from property owners and/or local officials (e.g., police, fire department), as appropriate for the conduct of all filming productions when using the certificate of waiver or equivalent authorisation.

(7) SECURITY. The method of security that shall be used to exclude from the location all persons not directly involved with the operation.

Note: This shall include the requirement used to stop activities when unauthorised persons, vehicles, and/or aircraft enter the operations area, or for any other reason, in the interest of safety.

(8) BRIEFING OF PILOT/PRODUCTION PERSONNEL. Procedures for briefing personnel on the risks involved and on emergency procedures and safeguards to be followed during the filming production event.

(9) CERTIFICATION/AIRWORTHINESS. Procedures for ensuring that required inspections will be conducted.

(10) COMMUNICATIONS. Procedures for communicating with all participants during the actual operation and filming.

Note: The applicant may use oral, visual, and/or radio communications, as long as participants are continuously apprised of the current status of the operation.

(11) ACCIDENT AND INCIDENT NOTIFICATION. Procedures for receiving notification of and reporting accidents and incidents.

11.7 SIGHTSEEING FLIGHTS

11.7.1.1 APPLICABILITY

(a) This subpart applies to those operations involving the carriage of persons for viewing natural formations, manmade objects, or wildlife on the ground when:

(1) Those operations are conducted as part of a business enterprise or for compensation or hire;

(2) The flight is unquestionably advertised as “sightseeing”;

(3) The flight returns to the aerodrome of departure without having landed at any other aerodrome;

(4) The flight is conducted within a 25 nautical-mile radius of the departure aerodrome; and

(5) The certificated passenger capacity of the aircraft does not exceed nine passengers.

Note: Any other passenger-carrying flight for remuneration, hire, or valuable consideration shall be conducted under an air operator certificate in accordance with Part 9 of these regulations.

11.7.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.7.1.3 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct sightseeing operations unless that pilot has:

(1) At least a CPL with ratings appropriate to the category, class, and type of aircraft to be used under the terms of the certificate of waiver or equivalent authorisation;

(2) At least 500 hours as PIC, including:

(i) At least 20 hours as PIC in the aircraft type;

(ii) A minimum of 100 hours in the category and class of aircraft to be used; and

(iii) A minimum of 5 hours as PIC in the make and model of aircraft to be used under the certificate of waiver or equivalent authorisation.

11.7.1.4 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface or aircraft in flight.

(b) All sightseeing operations shall be conducted only:

(1) In VFR weather conditions; and

(2) Between the hours of official sunrise and official sunset.

(c) No person may conduct sightseeing operations:

(1) Over congested areas or open-air assemblies of persons lower than 1 000 ft; and

(2) Elsewhere lower than the minimum safe altitude requirements of Part 8 of these regulations.

(d) In addition to any operational or equipment requirements of this subpart for manned free balloon operation, the following equipment is required for specific types of manned free balloon operation:

(1) For all balloons, an altimeter and a rate-of-climb indicator;

(2) For hot air balloons:

(i) If fuel cells are used, a means (e.g., fuel quantity gauge) to indicate to the crew the quantity of fuel in each cell during flight, calibrated in appropriate units or in per cent of fuel cell capacity; and

(ii) An envelope temperature indicator; and.

(3) For captive gas balloons, a compass.

(e) In addition to any requirements of this subpart for a specific type of tethered or moored balloon operation, the requirements of 8.8 of these regulations apply.

(f) The requirements of Part 8 of these regulations apply to sightseeing operations described by this subpart.

11.8 FISH SPOTTING

11.8.1.1 APPLICABILITY

(a) This subpart applies to those operations involving locating, tracking, and reporting on the location of fish and fish schools, when those operations are conducted as part of a business enterprise or for compensation or hire.

11.8.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.8.1.3 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct fish spotting operations unless that pilot has:

(1) At least a CPL with ratings appropriate to the category and class of aircraft to be used under the terms of the certificate of waiver or equivalent authorisation;

(2) At least 500 hours as PIC, including:

(i) A minimum of 100 hours in the category and class of aircraft to be used;

(ii) A minimum of 25 hours as PIC the category and class of aircraft to be used; and

(iii) A minimum of 5 hours as PIC in the make and model of aircraft to be used under the certificate of waiver or equivalent authorisation.

11.8.1.4 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface or aircraft in flight.

(b) Minimum cloud clearance requirements and minimum altitude requirements of Part 8 do not apply to those persons to whom the Authority has specifically approved different minimums as a part of a certificate of waiver or equivalent authorisation under 11.8 of this part.

11.9 NEWS MEDIA AND TRAFFIC REPORTING

11.9.1.1 APPLICABILITY

(a) This subpart applies to those operations involving observation of, and reporting on, news media events and/or vehicular traffic conditions on the highways and streets, when conducted by aircraft or airmen, or both.

11.9.1.2 CERTIFICATE OF WAIVER OR EQUIVALENT AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations in accordance with this subpart to hold a certificate of waiver or equivalent authorisation.

(b) The Authority will issue a certificate of waiver or equivalent authorisation to an applicant that meets the requirements of this subpart for that certificate or authorisation.

11.9.1.3 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot shall conduct news media or traffic reporting operations unless that pilot has:

(1) At least a CPL with ratings appropriate to the category, class, and type of aircraft to be used under the terms of the certificate of waiver or equivalent authorisation;

(2) At least 500 hours as PIC, including:

(i) At least 20 hours as PIC in the aircraft type;

(ii) A minimum of 100 hours in the category and class of aircraft to be used; and

(iii) A minimum of 5 hours in the make and model of aircraft to be used under the certificate of waiver or equivalent authorisation.

11.9.1.4 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface nor aircraft in flight.

(b) Minimum cloud clearance requirements and minimum altitude requirements of Part 8 of these regulations do not apply to those persons to whom the Authority has specifically approved different minimums as a part of a certificate of waiver or equivalent authorisation under 11.9 of this part.

11.10 AERIAL PHOTOGRAPHY

11.10.1.1 APPLICABILITY

(g) Aerial photography is the taking of photographs from an aircraft or other airborne platforms for aerial photography include fixed-wing aircraft, helicopters, drones, or using action cameras while skydiving.

(h) This subpart also applies to those operations involving location determination, tracking and reporting, when those operations are conducted as part of a business enterprise or for compensation or hire.

11.10.1.2 CERTIFICATE OR AUTHORISATION REQUIRED

(a) The Authority will require each person conducting operations covered by this subpart to hold a certificate or equivalent authorisation.

(b) The Authority will issue a certificate or authorisation to each applicant who qualifies for it under the provisions of this subpart.

11.10.1.3 OPERATING RULES

(a) Each operator shall conduct operations so as not to endanger persons or property on the surface nor aircraft in flight.

(b) Minimum cloud clearance requirements and minimum altitude requirements of Part 8 do not apply to those persons to whom the Authority has specifically approved different minimums as a part of an authorisation under this subpart.

11.10.1.4 EXPERIENCE AND TRAINING REQUIREMENTS

(a) No pilot may conduct aerial photography operations unless he or she has:

(1) At least a commercial licence with ratings appropriate to the category and class aircraft to be used under the terms of the waiver;

(2) At least 300 hours as PIC;

(3) A minimum of 100 hours in the category and class of aircraft to be used.

CURAÇAO CIVIL AVIATION REGULATIONS

PART 11 – IMPLEMENTING STANDARDS

For ease of reference the number assigned to each IS corresponds to its associated regulation. For example, IS 11.1.1.1 reflects a standard required by 11.1.1.1 of this part.

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PART 11 – IMPLEMENTING STANDARDS

IS 11.1.1.1(F)

Aerial Work Operator's Application Form – Remotely Piloted Aircraft is obtainable at the Authority.

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