LIBERIA
CIVIL AVIATION REGULATIONS

PART 2
PERSONNEL LICENSING

EDITION 3.0

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INTRODUCTION

Part 2 addresses the licensing of aviation personnel. Article 32 of the Chicago Convention requires Liberia to issue certificates of competency and licenses or validate such certificates or licenses issued by other Contracting States to the pilot of every aircraft and to other members of the operating crew of every aircraft engaged in international navigation. The basis of this obligation is the goal of promoting and conducting safe and regular aircraft operations through the development and implementation of internationally acceptable certification and licensing processes. If the same process is extended to domestic operations, Liberia can ensure the overall safety of aircraft operation through unification of licensing requirements. ICAO Annex 1, Personnel Licensing, presents the broad international specifications for personnel licensing agreed upon by Contracting States. Most of the specifications in ICAO Annex 1 are not given in enough detail to satisfy the day-to-day management of a country's personnel licensing activities. Part 2 of the Liberia Civil Aviation Regulations (LCAR) presents detailed requirements for the general rules of licensing and detailed requirements for the certification of the licenses contained in ICAO Annex 1 of: pilots and flight instructors, flight engineers, flight navigators, flight operations officers, mechanics, aeronautical station operators and for medical assessment of flight crew and aeronautical station operators. The licensing and medical standards are based upon ICAO Annex 1, through Amendments 171 and 172.

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PART 2— PERSONNEL LICENSING

2.1 GENERAL

2.1.1 APPLICABILITY

(a) Part 2 prescribes:

(1) The requirements for issuing, renewal and re-issue of aviation personnel licenses, ratings, authorizations and certificates;

(2) The conditions under which those licenses, ratings, authorizations and certificates are necessary; and

(3) The privileges and limitations granted to the holders of those licenses, ratings, authorizations and certificates.

2.1.2 DEFINITIONS

(a) Definitions are contained in LCAR Part 1.

2.1.3 ABBREVIATIONS

The following abbreviations are used in Part 2:

(1) **A** – Aeroplane.
(2) **AIP** – Aeronautical Information Publication.
(3) **AME** – Aviation Medical Examiner.
(4) **AMT** – Aviation Maintenance Technician.
(5) **ATCO** – Air Traffic Controller (Note: abbreviation ICAO A446).
(6) **AS** – Airship.
(7) **ATPL** – Airline Transport Pilot License.
(8) **B** – Balloon.
(9) **CAT II** – Category II.
(10) **CAT III** – Category III.
(11) **CPL** – Commercial Pilot License.
(12) **CRM** – Crew Resource Management.
(13) **DFEE** – Designated Flight Engineer Examiner.
(14) **DFNE** – Designated Flight Navigator Examiner.
(15) **DFOOE** – Designated Flight Operations Officer Examiner.
(16) **DME** – Designated Mechanic Examiner.
(17) **DPE** – Designated Pilot Examiner.
(18) **DPRE** – Designated Parachute Rigger Examiner.
(19) **FE** – Flight Engineer.
(20) **FI** – Flight Instructor.
(21) **FOO** – Flight Operations Officer.
(22) **G** – Glider.
(23) **IA** – Inspection Authorization.
(24) **IFR** – Instrument Flight Rules.
(25) **ILS** – Instrument Landing System.
(26) **H** – Helicopter.
(27) **LCAA** – Liberia Civil Aviation Authority

(28) **ICAO** – International Civil Aviation Organisation.
(29) **MPA** – Multi-pilot Aeroplane.
(30) **MPH** – Multi-pilot Helicopter.
(31) **MPL** – Multi-crew Pilot License
(32) **NOTAM** – Notice to airmen.
(33) **PIC** – pilot-in-command.
(34) **PL** – Powered-lift
(35) **PPL** – Private Pilot License.
(36) **RP** – Remote Pilot.
(37) **RPA** – Remotely Piloted Aircraft.
(38) **RT** – Radiotelephony.
(39) **SPA** – Single-pilot Aeroplane.
(40) **SPH** – Single-pilot Helicopter.
(41) **STS** – Skill test standard
(42) **VFR** – Visual Flight Rules.

2.2 GENERAL REQUIREMENTS FOR LICENCES, RATINGS, AUTHORISATIONS, CERTIFICATES, ENDORSEMENTS AND DESIGNATIONS

2.2.1 ISSUE, RENEWAL, AND RE-ISSUE OF LICENCES, RATINGS, AUTHORISATIONS, DESIGNATIONS, AND CERTIFICATES

2.2.1.1 Licenses

(a) The Authority may issue the following licenses under this Part to an applicant who satisfactorily accomplishes the requirements in this Part for the license sought:

(1) Pilot licenses:

(i) Private pilot license – aeroplane, helicopter, airship, powered-lift, balloon or glider categories;

(ii) Commercial pilot license—aeroplane, helicopter, airship, powered-lift, balloon or glider categories;

(iii) Multi-crew pilot license – aeroplane,

(iv) Airline Transport pilot license (ATPL) – aeroplane, helicopter or powered-lift categories;

(2) Flight engineer license.

(3) Flight navigator license.

(4) Flight operations officer license.

Note: Some States use the term Flight Dispatcher license

(5) Flight instructor license.

(6) Ground instructor license.

(7) Aircraft maintenance technician license.

(8) Aviation repairman specialist license.

(9) Parachute rigger license.

(10) Air traffic controller license.

(11) Aeronautical station operator license.

(12) Flight radiotelephone operator.

Notes: Regarding the Flight radiotelephone operator license:

(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, a Contracting State may endorse a license already held by the applicant or issue a separate license as appropriate.

(ii) In some Contracting States, the testing and authorization of radiotelephone license may rest with a Government Agency other than the CAA.

(iii) Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all pilot aeroplane and helicopter licenses.

2.2.1.2 **Ratings**

(a) The Authority may issue the following ratings to place on a pilot license or flight instructor license when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:

(1) Category ratings in the following aircraft:

(i) Aeroplane.

(ii) Helicopter.

(iii) Glider.

(iv) Free Balloon.

(v) Airship.

(vi) Powered lift.

(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.

(v) A class rating may be issued for those helicopters certificated for single-pilot operations and which have comparable handling, performance and other characteristics.

(vi) Hot air – balloon.

(vii) Gas – balloon.

(viii) Any rating considered necessary by the Authority.

(b) *Note:* A class rating or endorsement for High Performance Aeroplanes (HPA) requires additional knowledge, if the applicant has not completed the ATPL (A) knowledge requirements. (See 14 CFR 61.31 (f) and Appendix 1 to JAR-FCL 1.215 paragraph (d)).

(1) 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 except where a class rating has been established under (a)(2)(v).

(iii) Any aircraft considered necessary by the Authority.

Note: A type rating for High Performance Aeroplanes (HPA) requires additional knowledge, if the applicant has not completed the ATPL (A) knowledge requirements. (See 14 CFR 61.31 (f) and Appendix 1 to JAR-FCL 1.220 paragraph (d))

(2) Instrument ratings in the following aircraft:

(i) Instrument – Aeroplane.

(ii) Instrument – Helicopter.

(iii) Instrument – Powered lift.

Note: The instrument rating is included in the CPL-Airship and the ATPL-Aeroplane and Powered-lift.

(3) Flight Instructor ratings:

(i) The appropriate aircraft category, class, instrument and/or type rating according to the instruction to be taught.

(4) The Authority may issue the following ratings to place on a ground instructor's license when an applicant satisfactorily accomplished the requirements of this Part for the rating sought:

(i) Basic.

(ii) Advanced.

(iii) Instrument.

(c) The Authority may issue the following ratings to place on a flight engineer's license when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:

(1) Reciprocating engine powered.

(2) Turbo propeller powered.

(3) Turbojet powered.

(4) The Authority may issue the following ratings to place on an air traffic controller license when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:

(5) Aerodrome control rating.

(6) Approach control rating.

(7) Approach radar control rating.

(8) Approach precision radar control rating.

(9) Area control rating.

(10) Area radar control rating.

(d) The Authority may issue the following ratings to place on an aircraft maintenance technician license when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:

(1) Airframe.

(2) Powerplant.

(3) Avionics.

(e) The Authority may issue ratings as appropriate to place on an aviation repairman specialist license.

(f) The Authority may issue the following ratings to place on a parachute rigger's license when an applicant satisfactorily accomplished the requirements of this Part for the rating sought:

(1) Seat.

(2) Back.

(3) Chest.

(4) Lap.

2.2.1.3 **Authorizations**

(a) The Authority may issue the following authorizations when an applicant satisfactorily accomplishes the requirements in this Part for the authorization sought:

(1) Student pilot authorization.

(2) Instructor authorization for training in a flight simulation training device.

Note: if the State prefers, a student pilot license or certificate can be issued.

(b) The Authority may issue the following authorizations to place on a pilot license when an applicant satisfactorily accomplishes the requirements in this Part for the authorization sought:

(1) Category II pilot authorization.

(2) Category III pilot authorization.

(c) The Authority may issue the following authorization to place on an AMT license when an applicant satisfactorily accomplished the requirements in the Part for the authorization sought:

(1) Inspection authorization.

2.2.1.4 **Endorsements**

(a) A pilot may receive the following endorsements from an authorized instructor when he/she satisfactorily accomplished the required training in this Part:

(1) Complex aeroplane endorsement.

(2) High performance aeroplane endorsement.

(3) High altitude aircraft endorsement.

(4) Night vision goggles endorsement.

2.2.1.5 **Certificates**

(a) The Authority may issue the following medical certificates when an applicant satisfactorily accomplishes the requirements in this Part for the medical certificate sought:

(1) Medical certificate Class 1 for CPL and ATPL licenses; flight instructor licenses and DPEs;

(2) Medical certificate Class 2 for student pilot authorization, PPL, Flight Engineer, and Flight Navigator licenses;

(3) Medical certificate Class 3 for Air traffic controller license.

(b) The Authority may issue the following certificates to pilots and flight engineers holding a license from another ICAO Contracting State.

(1) Validation certificates.

(c) The Authority may issue certificates of designation to representatives of the Director General of Aviation as identified in 2.2.2.6 below.

Note: The ICAO Annex 1 medical assessment for FE and FN will change from a Class 1 medical assessment to a Class 2 medical assessment effective November 23, 2006.

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 Director General of Civil Aviation, as specified in this Part:

(1) DPE;

(2) DFEE;

(3) DFNE;

(4) DFOOE;

(5) DME;

(6) DPRE;

(7) AME; or

(8) Other designees as may be determined by the Authority.

2.2.1.7 **Validity of Licenses, Ratings, Authorizations and Certificates**

(a) The validity period of the licenses, ratings, authorizations, designations, certificates of validation and medical certificates and the renewal/re-issue conditions are indicated in the applicable requirements of Part 2.

(b) The issue, renewal and re-issue of licenses, ratings, authorizations, designations and certificates will be performed by the Authority.

(1) Renewal of ratings and category II/III pilot authorizations may be performed by the Examiner, when delegated by the Authority.

(2) Renewal of medical certificates may be performed by the AME, when delegated by Authority.

(c) Application for the issue, renewal and re-issue of licenses, ratings, authorizations, designations or certificates by the Authority shall be done by submitting to the Authority a properly filled out form, which can be obtained from the Authority.

(d) For renewal,

(1) Application must be made to the Authority at least 14 days before the expiry date.

(2) The license, ratings, authorizations, certificates, including any required medical certificate, must be valid.

(e) Privileges. The holder of a license, certificate, authorization or designation shall not exercise privileges other than those granted by the license, certificate, authorization or designation.

(f) The privileges granted by a license, or by related ratings, may not be exercised unless the holder maintains competency and meets the requirements for recent experience of this part.

(g) Maintenance of competency shall be indicated in the airman's personal license or record (e.g. logbook).

(h) The maintenance of competency of flight crewmembers, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Part 8.

(i) Medical fitness. Applicants for the following licenses and authorizations shall hold a current and appropriate medical certificate issued under this part in order for their license or authorization to be valid:

(1) Student pilot authorization.

(2) Pilot license,

(3) Flight engineer license.

(4) Flight navigator license.

(5) Flight instructor license.

(6) Designated pilot examiner (DPE).

(7) Designated flight engineer examiner.

(8) Designated flight navigator examiner.

(9) Air traffic controller license.

2.2.2 LANGUAGE PROFICIENCY

(a) Pilots, flight engineers, flight navigators, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radio telephony communications in Liberia and in the English language.

(b) The airmen identified in item (a) above shall demonstrate the ability to speak and understand the language used for radiotelephony communications in Liberia and in the English language to 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 airmen identified in item (a) 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) Implementing Standard IS 2.2.2 contains the detailed requirements for language proficiency.

Note: ICAO DOC 9835, Manual on the Implementation of ICAO Language Proficiency Requirements, is a guide to the implementation of the ICAO Language Proficiency Requirements.

2.2.3 CREDIT FOR MILITARY COMPETENCY

2.2.3.1 Credit for Military Pilots

(a) Pilot licenses. Except for a rated military pilot or former 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 his or her military training, for:

(1) A CPL;

(2) A rating in the category and class of aircraft for which that military pilot is qualified;

(3) An instrument rating with the appropriate category rating for which that military pilot is qualified; and

(4) A type rating, if appropriate.

(b) The testing required by a military pilot seeking a license or rating is as follows:

(1) If the applicant has been on active flight status within the past 12 months of application, pass a knowledge test on:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) Radiotelephony;

(2) If the applicant has not been on active flight status within the past 12 months of application, pass both a knowledge and skill test.

2.2.3.2 Credit for Military Parachute Riggers

(a) The Authority shall grant to an applicant for a senior parachute rigger license that license if he or she passes a knowledge test on the regulations of Subpart 2.10 and presents satisfactory documentary evidence that he or she—

(1) Is a member or civilian employee of an armed force of Liberia, is a civilian employee of a regular armed force of a foreign country, or has, within the 12 months before he applies, been honorably discharged or released from any status covered by this paragraph;

(2) Is serving, or has served within the 12 months before application, as a parachute rigger for such an armed force; and

(3) Has the experience required by paragraph 2.10.1.3.

2.2.4 VALIDATION AND CONVERSION OF FOREIGN LICENCES, RATINGS, AUTHORISATIONS AND CERTIFICATES

2.2.4.1 Validation of Flightcrew Licenses

Note: See ICAO Document 9379, Manual of Procedures for Establishment of a State's Personnel Licensing System, Chapter 7: 7.3 and Appendix O for guidance related to validation or conversion.

(a) General requirements for validation.

(1) A person who holds a current and valid pilot license issued by another Contracting State in accordance with ICAO Annex 1 may apply for a validation of such license for use on aircraft registered in Liberia.

(2) The applicant for the validation certificate shall present to the Authority the foreign license and evidence of the experience required by presenting the record (e.g. logbook).

(3) The applicant for the validation certificate shall present to the Authority evidence that he/she holds either a current medical certificate issued under Part 2 or a current medical certificate issued by the Contracting State that issued the applicant's license.

(i) The Authority may allow the applicant to use his/her 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 Part 2, relevant to the license held.

(4) The applicant for the validation certificate shall present to the Authority evidence of language proficiency in the language of Liberia and in English as specified in IS 2.2.2 or shall demonstrate to the Authority the language proficiency skills as specified in IS 2.2.2.

(i) The validation shall be limited for use on Liberia registered aircraft for use within Liberia if the pilot is not proficient in the English language, as required by IS 2.2.2.

(5) Authority will verify the authenticity of the license, ratings authorizations and the medical certificate with the state of license issue prior to issuing the validation.

(6) The Authority will only validate ratings or authorizations on the foreign license together with the validation of a license

(7) The Authority may issue a validation certificate which will be valid for one year, provided the foreign license, ratings or authorizations and the medical certificate remains valid.

(b) Validation certificate with PPL privileges.

(1) In addition to the requirements in item (a) above, the applicant for the validation certificate with PPL privileges shall have a foreign license 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 item (a) above, the applicant for a validation certificate for either a PPL/IR, CPL, CPL/IR, MPL, ATPL or FE privileges, shall have the relevant foreign license and meet the following requirements:

(1) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the license to be validated, knowledge of Liberia's:

(i) Air Law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) Radiotelephony;

(2) The applicant for the validation certificate shall complete a skill test for the relevant license and ratings that he or she wants to be validated relevant to the privileges of the license held; and

(3) Comply with the experience requirements set out in the table below:

License	Experience	Validation Privileges
ATPL(A)	> 1 500 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)	>1 000 hours as PIC on multi-pilot helicopters	Commercial air transport multi-pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	> 500 hours as PIC or co-pilot on multi-pilot aeroplanes	Commercial air transport in multi-pilot aeroplanes as co-pilot
ATPL(PL) or CPL(PL)/IR	> 500 hours as PIC or co-pilot on multi-pilot powered-lift	Commercial air transport in multi-pilot powered-lift as co-pilot
ATPL(H) or CPL(H)/IR	> 500 hours as PIC or co-pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot
CPL(A)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot aeroplanes as PIC
CPL(H)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot helicopters as PIC
CPL(A)	> 700 hours in aeroplanes other than gliders, including 200 hours in the activity role for which validation is sought, and 50 hours in that	Activities in aeroplanes other than commercial air transport

License	Experience	Validation Privileges
	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 AS within the last 12 months	Commercial air transport in airships as PIC under IR and VFR conditions
CPL(B)	>50 hours as PIC in commercial air transport of which 35 hours in B within the last 12 months	Commercial air transport in balloons as PIC
CPL(G)	>250 hours as PIC in commercial air transport, including of which 50 must be in G within the past 12 months	Commercial air transport in gliders as PIC
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	Private flights under IFR
PPL(PL)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
Flight engineer	> 1 500 hours as flight engineer on aeroplanes in commercial air transport	Commercial air transport in aeroplanes as flight engineer
Flight engineer	> 1 000 hours as flight engineer on aeroplanes in other than commercial air transport	Other than commercial air transport in aeroplanes as flight engineer

Note 1: The term multi-pilot is used to indicate experience in an aircraft required to be operated with a co-pilot. (For example, see ICAO Annex 1: 2.6.1.3.1.).

Note 2: > = greater than

2.2.4.2 **Conversion of Flightcrew Licenses**

(a) Conversion of a foreign pilot license for issuance of a PPL by Liberia. A person who holds a current and valid pilot license with at least PPL privileges, issued by another Contracting State in accordance with ICAO Annex 1, may apply for a conversion and be issued with a PPL for use on aircraft registered in Liberia provided the following requirements are met.

(1) The holder shall:

(i) present to the Authority the foreign license, evidence of experience required by presenting the record (e.g. logbook) and current medical certificate;

(ii) present to the Authority evidence of language proficiency in the language of Liberia and in English as specified in IS 2.2.2 or shall demonstrate to the Authority the language proficiency skills as specified in IS 2.2.2;

(iii) obtain a Class 2 medical certificate issued under this Part;

(iv) demonstrate, to the satisfaction of the LCAA and relevant to the license to be converted, knowledge of Liberia's:

(A) Air Law;

(B) Meteorology;

(C) Operational Procedures; and

(D) Radiotelephony.

(v) complete a PPL skill test.

(2) The Authority will verify the authenticity of the license, ratings, authorizations and the medical certificate with the state of license issue prior to converting the license.

(b) Conversion of PPL/IR, CPL, CPL/IR, MPL, ATPL and Flight Engineer licenses, which have been validated in accordance with paragraph 2.2.4.1.

(1) The holder of a current and valid foreign CPL, CPL/IR, MPL, ATPL or Flight Engineer license issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate license and ratings issued by Liberia provided the following requirements are met:

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1;

(ii) The applicant has completed 200 flight hours in a Liberia registered aircraft which is operated by an operator established in Liberia exercising the privileges granted by the validation certificate,

(iii) The applicant for the conversion shall present to the Authority the foreign license 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 license to be converted.

(v) Ratings listed on a person's foreign pilot license that have been validated in accordance with paragraph 2.2.4.1, may be placed on that person's converted license.

(2) The holder of a current and valid foreign PPL/IR issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate license and ratings issued by Liberia provided the following requirements are met:.

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1;

(ii) The applicant has completed 75 flight hours in a Liberia registered aircraft in Liberia exercising the privileges granted by the validation certificate,

(iii) The applicant for the conversion shall present to the Authority the foreign license 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 license to be converted.

(v) Ratings listed on a person's foreign pilot license that have been validated in accordance with paragraph 2.2.4.1, may be placed on that person's converted license.

(3) The holder of a current and valid foreign PPL/IR issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate license and ratings issued by Liberia provided the following requirements are met:.

(i) The applicant is the holder of a current validation certificate issued under 2.2.4.1;

(ii) The applicant has completed 75 flight hours in a Liberia registered aircraft in Liberia exercising the privileges granted by the validation certificate,

(iii) The applicant for the conversion shall present to the Authority the foreign license 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 license to be converted.

(v) Ratings listed on a person's foreign pilot license that have been validated in accordance with paragraph 2.2.4.1, may be placed on that person's converted license.

2.2.4.3 **Validation of Flightcrew Licenses by Reliance upon the Licensing System of Another Contracting State**

(a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2, the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign license and current medical certificate, provided:

(1) the license is issued by another ICAO Contracting State;

(2) the Authority is convinced that the license has been issued on the basis of at least Part 2;

(3) there is an agreement between the Authority and the other Contracting State about recognition of licenses and, if applicable, keeping the licenses and ratings current and valid; and

(4) the applicant for the validation certificate shall demonstrate, to the satisfaction of the Liberia Civil Aviation Authority and relevant to the license, knowledge of Liberia's:

(i) Air law;

(ii) Meteorology;

(iii) Operational procedures; and

(iv) Radiotelephony.

(b) The applicant for the validation certificate shall present to the Authority the:

(1) Foreign license and evidence of the currency of the license by presenting the record (e.g. logbook).

(2) Medical certificate relevant to the license to be validated, provided that the foreign medical certificate meets the requirements of Part 2.

(3) Evidence of language proficiency in the language of Liberia and in English as specified in paragraph 2.2.2 or shall demonstrate to the Authority the language skills as specified in paragraph 2.2.2.

(c) The authority will verify the authenticity of the license, ratings, authorizations and the medical certificate with the State of License issue prior to issuing the validation.

(d) The Authority may issue a validation certificate which will be valid for one year, provided the foreign license, ratings, authorizations and medical certificate remains valid.

(e) The IS 2.2.4.3 contains procedures for validation of flight crew licenses by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.4 **Conversion of Flightcrew Licenses by Reliance upon the Licensing System of Another Contracting State**

(a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2, the Authority may issue a license with the applicable ratings to the holder of a current and valid foreign license, provided:

(1) the license is issued by another ICAO Contracting State;

(2) the Authority is convinced that the license 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 licenses.

(b) The applicant for the conversion shall present to the Authority the:

(1) foreign license and evidence of the currency of the license by presenting the record (e.g. logbook);

(2) medical certificate relevant to the license if the medical certificate is to be converted or medical certificate issued under Part 2 relevant to the license sought; and

(3) Evidence of language proficiency in the language of Liberia and in English as specified in paragraph IS 2.2.2 or shall demonstrate to the Authority the language skills as specified in paragraph IS 2.2.2.

(c) The applicant shall demonstrate, to the satisfaction of the LCAA and relevant to the license to be converted, the knowledge of Liberia's:

(1) Air law;

(2) Meteorology;

(3) Operational procedures;

(4) Radiotelephony.

(d) The authority will verify the authenticity of the license, ratings, authorizations and the medical certificate with the State of License issue prior to issuing the license.

(e) The IS 2.2.4.4 contains procedures conversion of flight crew licenses by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.5 **Validation in Case of Leased, Chartered or Interchanged Aircraft**

(a) The requirements stated in 2.2.4.1 shall not apply where aircraft, registered in Liberia 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 the responsibility for the technical and/or operational supervision in accordance with Art. 83 bis of the ICAO Convention.

(b) The licenses of the flight crew of the other Contracting State may be validated, provided that the privileges of the flight crew license validation are restricted for use during the lease, charter or interchange period only on nominated aircraft in specified operations not involving a Liberia operator, directly or indirectly through a wet lease or other commercial arrangement.

(c) The Authority will verify the authenticity of the license, ratings, authorizations, including the English language proficiency endorsement of at least Level 4, and the medical certificate, with the State of License issue prior to issuing the validation.

2.2.4.6 **Temporary Validation of Non-Liberia Pilot Licenses Held by Manufacturer Pilots**

(a) In circumstances where validation of a non- Liberia pilot license is needed to fulfill specific tasks of finite duration, the Authority may issue a temporary validation of such a license for those tasks as described in this paragraph.

(b) Notwithstanding the requirements contained in Sections 2.2.4.1, 2.2.4.2, 2.2.4.3 or 2.2.4.4, the Authority may temporarily validate a license issued by another ICAO Contracting State in accordance with the provisions of ICAO Annex 1, including an instructor rating or examiner authorization issued by that State, provided that the holder of the license shall:

(1) Possess an appropriate license, medical certificate, type ratings and qualifications, to include instructor or examiner qualifications, valid in the State of license issue for the duties proposed;

(2) Demonstrate, to the satisfaction of the Liberia Civil Aviation Authority and relevant to the license to be validated, knowledge of Liberia's:

(i) Air law;

(ii) Meteorology;

(iii) Operational Procedures; and

(iv) Radiotelephony.

(3) Provide evidence of language proficiency in the language of Liberia and in English as specified in paragraph 2.2.2 or shall demonstrate to the Authority the language skills as specified in paragraph 2.2.2.

(4) Be employed by an aircraft manufacturer or Approved Training Organization located outside Liberia 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 Liberia, 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.

(d) Liberia will verify the authenticity of the license, ratings, authorizations and medical certificate with the State of license issue prior to issuing the temporary validation.

(e) The duration of the temporary validation shall be for one year.

2.2.4.7 **Validation of Aircraft Maintenance Technician Licenses**

(a) General requirements for validation.

(1) A person who holds a current and valid AMT license issued by another Contracting State, in accordance with ICAO Annex 1, may apply for a validation of such license for use on aircraft registered in Liberia.

(2) The applicant for the validation certificate shall present to the Authority the foreign license and evidence of the experience required by presenting the personal record.

(3) The applicant for the validation certificate shall demonstrate to the Authority evidence of language proficiency in the language of Liberia and if required, in English.

(4) Authority will verify the authenticity of the license, ratings authorizations with the state of license issue prior to issuing the validation.

(5) The Authority will only validate ratings or authorizations on the foreign license together with the validation of a license

(6) The Authority may issue a validation certificate which will be valid for one year, provided the foreign license, ratings or authorizations remains valid.

(b) The applicant for the validation certificate shall demonstrate to the satisfaction of the Authority the knowledge relevant to the license to be validated of:

(1) Air Law;

(2) Applicable Airworthiness requirements governing certification and continuing airworthiness; and

(3) Approved maintenance organizations and procedures.

(c) The applicant for the validation certificate shall complete a skill test for the relevant license and ratings that he or she wants to be validated relevant to the privileges of the license held; and

(d) Have a minimum of four years AMT experience.

2.2.4.8 **Conversion of Aircraft Maintenance Technician Licenses**

(a) General requirements for conversion. A person who holds a current and valid AMT license issued by another Contracting State, in accordance with ICAO Annex 1, may apply for conversion of such license for use on aircraft registered in Liberia provided the following requirements are met:

(1) The applicant for the conversion shall present to the Authority the foreign license and evidence of the experience required by presenting the personal record.

(2) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency in the language of Liberia and if required, in English.

(3) Demonstrate, to the satisfaction of the LCAA and relevant to the license to be converted, knowledge of Liberia's:

(i) Air Law;

(ii) Applicable Airworthiness requirements governing certification and continuing airworthiness;

(iii) Approved maintenance organizations and procedures.

(4) The applicant for the validation certificate shall complete a skill test for the relevant license and ratings that he or she wants to be converted relevant to the privileges of the license held; and

(5) Have a minimum of four years AMT experience.

(i) The LCAA will verify the authenticity of the license, ratings and authorizations with the state of license issue prior to issuing the converted license.

(ii) The LCAA will only convert ratings or authorizations on the foreign license together with the conversion of a license.

(b) Conversion of AMT licenses that have been validated in accordance with 2.2.4.7. The holder of a current and valid AMT license issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with 2.2.4.7 and can show evidence of 12 months performing maintenance on aircraft registered in Liberia may convert his/her AMT license with no further formality.

2.2.4.9 **Validation of AMT Licenses by Reliance upon the Licensing System of Another Contracting State**

(a) Notwithstanding paragraphs 2.2.4.7 and 2.2.4.8, the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AMT, provided:

(1) the license is issued by another ICAO Contracting State;

(2) the Authority had determined that the license has been issued on the basis of at least Part 2;

(3) there is an agreement between the Authority and the other Contracting State about recognition of licenses and, if applicable, keeping the licenses and ratings current and valid; and

(4) the applicant for the validation certificate demonstrates, to the satisfaction of the Liberia Civil Aviation Authority and relevant to the license to be validated, knowledge of Liberia's

(i) Air law;

(ii) Applicable Airworthiness requirements governing certification and continuing airworthiness; and

(iii) Approved maintenance organizations and procedures.

(5) The applicant for the validation certificate shall present to the Authority the:

(i) Foreign license and evidence of the currency of the license by presenting the personal record.

(6) The applicant for the validation shall demonstrate to the Authority evidence of language proficiency in the language of Liberia and if required, in English.

(b) The authority will verify the authenticity of the license, ratings, with the State of License issue prior to issuing the validation.

(c) The Authority may issue a validation certificate which will be valid for one year, provided the foreign license, ratings, and authorizations remain valid.

(d) The IS 2.2.4.9 contains procedures for validation of AMT licenses by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.10 **Conversion of AMT Licenses by Reliance upon the Licensing System of Another Contracting State**

(a) Notwithstanding paragraphs 2.2.4.7 and 2.2.4.8, the Authority may issue a license with the applicable ratings to the holder of a current and valid foreign license, provided:

(1) the license is issued by another ICAO Contracting State;

(2) the Authority is convinced that the license 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 licenses.

(b) The applicant for the conversion shall present to the Authority the:

(1) Foreign license; and

(2) Evidence of the currency of the license by presenting the personnel record (e.g. logbook).

(c) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency in the language of Liberia and if required, in English.

(d) The applicant shall demonstrate, to the satisfaction of the LCAA and relevant to the license to be converted knowledge of Liberia's:

(1) Air law;

(2) Applicable airworthiness requirements governing certification and continuing airworthiness; and;

(3) Approved maintenance organizations and procedures.

(e) The authority will verify the authenticity of the license, ratings, authorizations and the medical certificate with the State of License issue prior to issuing the validation.

(f) The IS 2.2.4.10 contains procedures conversion of AMT licenses by reliance upon the licensing system of another ICAO Contracting State.

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) Training and/or experience used to meet the requirements for a license, rating, endorsement and/or authorization of Part 2; and

(2) The experience required to show the maintaining of recency of aeronautical experience according to the requirements of Part 2.

2.2.5.2 Training Conducted in an Approved Training Organization

(a) Approved training for aviation personnel licenses shall be conducted within an approved training organization.

(b) The Authority may approve a training program for a license, rating, authorization or endorsement that allows an alternative means of compliance with the experience requirements prescribed in this Part when training is conducted within an Approved Training Organization under special curricula approved by the Authority under Part 3.

(c) Prior to authorizing an alternative means of compliance that permits an Approved Training Organization to conduct training, which does not meet the normal prescribed experience requirements, the Authority shall ensure that the approved training program 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 prescribes the requirements for certifying and administering Approved Training Organizations for conducting approved training.

(e) Competency-based approved training for aircraft maintenance personnel shall be conducted within an approved training organization.

Note 1: See ICAO Document 7192 Part B-5 and Doc 9379 for details on training. Comprehensive training schemes for the aircraft maintenance technician license and the multi-crew pilot license, including the various levels of competency, are contained in the Procedures for Air Navigation Services – Training, ICAO Doc 9868, PANS-TRG).

Note 2: Personnel approving MPL programs or assessing training delivery and student performance need to be appropriately trained because of several new concepts underpinning the license. This is discussed in greater detail in ICAO Document 9841, Manual on the Approval of Training Organizations.

2.2.5.3 **Use of Flight Simulation Training Devices**

(a) Except as specified in paragraph (b) of this subsection, no airman may receive credit for use of any flight simulation training device for satisfying any training, testing, or checking requirement of this part unless that flight simulator or flight training device is approved by the Authority for—

(b) The training, testing, and checking for which it is used;

(c) Each particular manoeuvre, procedure, or crewmember function performed; and

(d) 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.

(e) The flight simulation training device 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.

(f) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.

(g) Operators that have standard instruments shall use simulators that have standard instruments.

(h) Operators shall not conduct differences training on variant training on aircraft that have electronic glass displays with aircraft that have standard instruments.

(i) The Authority may approve a device other than a flight simulation training device for specific purposes.

(j) The use of a flight simulation training device for performing training, testing and checking for which a flight crewmember is to receive credit, shall be approved by the Authority, which shall ensure that the flight simulation training device is appropriate to the task.

Note: See ICAO Doc 9625, Manual of Criteria for the Qualification of Flight Simulation Training Devices.

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 Part 2 are given at times, places, and by persons authorized and designated by the Authority.

(b) The knowledge test will be performed in written or computer format, except for the knowledge test for an instructor license 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 this Part for the applicable license, rating or authorization 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 licenses and will appear in each license section in Part 2 as applicable.

(b) An applicant for a knowledge or skill test shall receive written authorization from the Authority to take, or retake, the test.

(c) An applicant shall show proper identification in the form of a Government issued identification document at the time of application 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 license 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 license 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 has 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 crewmember by a certificate holder under Part 9 at the time of the ATP skill test; and

(f) When an applicant is required to provide an aircraft for a skill test, it must:

(1) be airworthy and certificated;

(2) be capable of performing all areas of operation appropriate to the rating sought and have no operating limitations, which prohibit its use in any of the areas of operation, required for the skill test.

(3) not have 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 license and/or rating for which the applicant is applying, with appropriate letter of authorization for aircraft use in a skill test if 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 operator the aircraft safety;

(iii) cockpit 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 a flight simulation training device and an aircraft, the flight simulation training device must 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 reapply to retake the test only after the applicant has received:

(2) The necessary training from an authorized instructor who has determined that the applicant is proficient to pass the test; and

(3) An endorsement from an authorized instructor who gave the applicant the additional training.

(4) An applicant for a flight instructor license with an aeroplane category rating or, for a flight instructor license with a glider category rating, who has failed the skill test due to deficiencies in instructional proficiency on stall awareness, spin entry, spins, or spin recovery shall—

(5) Comply with the requirements of paragraph (f)(1) of this subsection before being retested;

(6) Bring an aircraft to the retest that is of the appropriate aircraft category for the rating sought and is certified for spins; and

(7) 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 licenses 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) All applicants for instructor licenses and ratings or authorizations shall, in addition to specific requirements contained in this Part, have received and logged training from an authorized instructor on the fundamentals of instructing and 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 program development;

(7) Lesson planning

(8) Classroom instructional techniques;

(9) Use of training aids, including flight simulation training devices 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 (a) of this subsection –

(1) The holder of an instructor license or authorization issued under this part 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 authorizes 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 airmen and aircraft licenses, ratings and certificates.

(b) The specific requirements for each type of designated examiner are contained in the appropriate licensing section of Part 2 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 license shall be made of a suitable material as listed in ICAO Annex 1: 5.1.2.

(b) The license format shall be in a form and manner prescribed by the Authority.

(c) The items required on the license are indicated in IS 2.2.8.

(d) The license shall contain the expiration date of the license and ratings.

(e) The license shall be issued in the language of Liberia and shall include an English translation.

2.2.9 **SUSPENSION OR REVOCATION OF A LICENCE, RATING, AUTHORISATION OR CERTIFICATE**

Note 1: See also Part 1: Section 1.3.

Note 2: The application of suspension or revocation of a license, etc., will vary from State to State depending on the legal structure of the State. The paragraphs under 2.2.9 are provided as a sample and are combined from 14 CFR: 13.19; and FAA Order 2150.3B.

2.2.9.1 **Suspension of a License, Rating Authorization or Validation Certificate**

(a) If, in accordance with the [Aviation Statute/ Section 610 of the Model Law] the Authority determines that the interests of safety require that a license, rating, authorization 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 license, rating, authorization, or validation certificate to retake all or part of the knowledge or practical tests required for any license, rating, authorization, or validation certificate at issue, renewal or re-issue. The Authority may suspend the validity of any such license, rating, authorization and/or validation certificate pending the results of such re-testing.

(2) A person whose license, rating, authorization, or certificate has been amended, modified, suspended, or revoked shall be provided with notice and an opportunity to be heard in accordance with Part 1: 1.3.

(3) After notifying the person involved, in writing, stating the reasons for such action, the Authority may also suspend the validity of any license, rating, authorization 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 his or her 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 license, certificate, rating, or authorization. The person involved shall surrender to the Authority all licenses or validation certificates in his or her possession that are subject to the suspension within 8 days of receiving the notification of the order. If the person fails to surrender the documents under suspension, the Authority may revoke all such certificate(s) held by that person.

(5) When a suspension is limited to one or more ratings mentioned on the license or validation certificate, the Authority shall provide the person involved with a new license 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 person under suspension has taken and passed the knowledge or practical tests required for any license, rating, or authorization at issue indicated in (a);

(ii) If the person involved has gained the required additional experience; or

(iii) By revocation of the license, rating, authorization and/or validation certificate.

(7) Once the suspension has been cancelled, other than by revocation, the Authority shall issue the person involved a new license 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 favorable results.

(b) The validity of a medical certificate may also be suspended in case of a temporary rejection on medical grounds.

(c) The person holding the medical certificate will be notified in writing of a suspension stating the reasons for that suspension.

(d) The person holding the suspended medical certificate shall surrender the medical certificate in his or her possession 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) A suspension may be lifted if the medical examination intended in (a) 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 Licenses, Ratings Authorizations or Certificates**

(a) A license, rating, authorization 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 license, rating, authorization and/or certificate may be revoked if the holder has made a statement contrary to the truth in obtaining or maintaining that license, rating authorization or certificate, or has provided incorrect data at a medical examination and/or test required for the issue, maintenance or renewal of the license, rating, authorization and certificate.

(c) A license, rating, authorization or certificate shall be revoked in case of proven misconduct, recklessness or excessive carelessness. The holder of the license will be notified in writing of the revocation with the reasons therefore.

(d) A person who has had a license or certificate revoked shall be obliged to hand over to the Authority all the licenses or certificates in his or her 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 licenses and certificates in his or her possession within 8 days after he or she has taken cognizance of the judgment or after it can be reasonably assumed that he or she has taken cognizance thereof.

2.3 PILOT LICENCES, CATEGORIES, RATINGS, AUTHORISATIONS, ENDORSEMENTS, INSTRUCTORS FOR PILOT LICENSING, AND DESIGNATED PILOT EXAMINERS

2.3.1 GENERAL

2.3.1.1 Applicability

(a) This Section prescribes the requirements for the issue, renewal and re-issue, if applicable, of pilot licenses, ratings and authorizations.

2.3.1.2 General Rule Concerning Licenses, Ratings and Authorizations

(a) An applicant shall, before being issued with any pilot license, rating, authorization or designation, meet such requirements in respect of age, knowledge, experience, flight instruction, skill, medical fitness and language proficiency as are specified for that license, rating or authorization.

(b) A person shall not act either as PIC or as co-pilot of an aircraft in any of the categories unless that person is the holder of a pilot license issued in accordance with the provisions of Part 2.

(c) An applicant shall for renewal or re-issue of a license, rating, authorization or designation, meet the requirements as are specified for that license, rating, authorization or designation.

2.3.1.3 Authority to Act as a Flight Crewmember

(a) A person shall not act as a pilot flight crewmember of an aircraft registered in Liberia unless a valid license or a validation certificate is held showing compliance with the specifications of this Part 2 and appropriate to the duties to be performed by that person.

(b) No person may act as the PIC or co-pilot 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 license 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 license or the issue of a higher grade of pilot license.

(b) The holder of a pilot license, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by Liberia to be operated with a co-pilot shall be entitled to be credited with not more than 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot license. Liberia may authorize that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in a multi-crew operation.

(c) The holder of a pilot license, when acting as co-pilot at a pilot station of an aircraft certificated to be operated with a co-pilot, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot license.

(d) The holder of a pilot license, 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 license.

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 license issued under this Part shall serve as a PIC in single pilot operations on a civil aircraft of Liberia registry engaged in commercial air transport operations if the person has reached his or her 60th birthday.

(b) For commercial air transport operations on a civil aircraft of Liberia registry requiring more than one pilot, one pilot may be up to 65 years of age provided the other pilot is less than 60 years of age.

Note: Attention should be paid to new ICAO Annex 1 requirements for pilot who have attained their 60th birthday; the validity period of medical assessment shall be reduced to six months.

2.3.1.6 **Recent Experience and Proficiency Requirements Non-Commercial Air Transport Operations**

Note: For commercial air transport operations, see LCAR 8: 8.4.

(a) In order to maintain recency and proficiency, all pilots shall meet the applicable requirements in (b) — (g) below.

(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 LCAR Part 8;

(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 license;

(3) A proficiency check in the appropriate aircraft for the license, ratings or authorizations 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 authorized CAA examiner, for a pilot certificate, rating, or operating privilege.

(ii) A practical test conducted by an authorized CAA examiner for the issuance of a flight instructor certificate, an additional rating on a flight instructor certificate, renewal of a flight instructor certificate, or reinstatement of a flight instructor certificate; and

(4) A logbook endorsement from an authorized instructor who gave the review, certifying that the person has satisfactorily completed the review required in (i) and (ii) above and 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 certified for more than one pilot or a turbojet aircraft unless, since the beginning of the past 12 calendar months, he or she has passed a proficiency check in an aircraft, or in a flight simulation training device approved for the purpose, with an authorized representative of the Authority.

(2) No person may act as co-pilot 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 3 takeoff and landings as the sole manipulator of the controls in the aircraft of the same type, or in a flight simulation training device approved for the purpose, with each takeoff and landing to full stop, and have satisfactorily completed ground training appropriate to the aircraft type.

(d) Aircraft type certificated for single pilot and requiring a type rating on the pilot license. No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the 12 calendar-months, he or she has passed a proficiency check with an authorized representative of the Authority in the category, class and type of aircraft to be operated, or in a flight simulation training device approved for the purpose.

(e) Recency for Carriage of Passengers. No person may act as PIC or co-pilot of an aircraft carrying passengers unless, within the preceding 90 days that pilot has:

(1) Made 3 takeoffs 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 a flight simulation training device approved for the purpose.

(2) For a tail wheel aeroplane, made the 3 takeoffs and landings in a tail wheel aeroplane with each takeoff and landing to a full stop.

(3) For night operations, made the 3 takeoffs and landings required by paragraph (a) (1) at night with each takeoff 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 six months:

(1) The pilot had an instrument proficiency check on the manoeuvres in the IR Skill Test and Proficiency Check contained in IS 2.3.8.2, or

(2) Has logged in actual or simulated conditions six hours instrument flight time including at least three 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

(1) that pilot 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 carry passengers on board, or within the preceding 120 days to act as PIC without passengers on board:--

(i) three takeoffs and landings, with each takeoff and landing including a climb out, cruise, descent, and approach phase of flight, if the pilot intends to use night visions goggles during the takeoff 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, 6 night vision goggle operations; or

(2) Successfully completed a proficiency check with an authorized 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 outlined in IS 2.3.1.7:

(b) Training and experience used to meet the requirements for a license, rating and authorization of Part 2; and

(c) The experience required to show recent flight experience according to the requirements of Part 2.

2.3.2 **CATEGORY, CLASS AND TYPE RATINGS, CATEGORY II/III AUTHORISATIONS, AND ENDORSEMENTS**

2.3.2.1 **General**

(a) The holder of a pilot license shall not be permitted to act as PIC or as co-pilot of an aircraft unless the holder has received the applicable ratings, authorizations 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 in this Part;

(3) A type rating when required in accordance with this Part;

(4) An authorization 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 this Part for the aircraft rating, authorization or endorsement sought.

(c) When an applicant demonstrates skill and knowledge for the initial issue or re-issue of a pilot license, the category and ratings appropriate to the class or type of aircraft used in the demonstration will be entered on the license.

(d) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the license holder by the Authority in place of issuing the class or type rating in accordance with (a). This authorization 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 license as a rating.

(b) Initial category rating.

(1) An applicant for a pilot's license, after successfully meeting all requirements for the issuance of the license as contained in this Part, shall receive the appropriate license with the aircraft category, and if applicable, class or type rating endorsed on the license.

(c) Additional category ratings.

(1) Any additional category rating endorsed on a pilot license shall indicate the level of licensing privileges at which the category rating is granted.

(2) The holder of a pilot license seeking an additional category rating shall:

(i) Meet the requirements of this Part appropriate to the privileges for which the category rating is sought;

(ii) Have an endorsement is his/her logbook or training record from an authorized 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, 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 validity, renewal or reissue of the license, and if applicable 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 license as a rating.

(b) Initial class rating.

(1) An applicant for a pilot's license, after successfully meeting all requirements for the issuance of the license as contained in this Part, shall receive the appropriate license with the aircraft category, class, and if applicable, type rating endorsed on the license.

(c) Additional class ratings.

(1) Any additional class rating endorsed on a pilot license shall indicate the level of licensing privileges at which the class rating is granted.

(2) The holder of a pilot license seeking an additional class rating shall:

(3) Meet the requirements of this Part appropriate to the privileges for which the class rating is sought;

(4) Have an endorsement is his/her logbook or training record from an authorized instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(5) Pass the required knowledge test unless the applicant holds a class rating within the same category of aircraft, at the same level of pilot license at either the private or commercial levels; and

(6) Pass the required skill test for the aircraft 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) Validity: Subject to compliance with the requirements specified in this Part, the validity period of:

(1) A multi-engine class rating is 1 calendar year.

(2) A single-engine class rating; balloon gas or balloon hot air rating is 2 calendar years.

(f) Renewal Timeframe

(1) For the renewal of a single-engine class rating, a balloon gas rating or a balloon hot air 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 license, category and class rating; and

(ii) Have completed 12 hours 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 license, 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. If the class rating has expired the applicant shall:

(1) Have received refresher training from an authorized instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the required skill test for the applicable aircraft category and/or class.

(3) 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 license as a rating, including any limitations.

(b) A pilot seeking an aircraft type rating to be added on a pilot license shall:

(1) Have received training form an authorized instructor in the applicable type of aircraft and/or approved flight simulation training device, 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 instrument rating that is appropriate to the aircraft category, class or type rating sought;

(3) Have an endorsement in his or her logbook or training record from an authorized instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;

(4) Pass the required skill test at the ATPL level, applying crew resource management concepts, applicable to the aircraft category, class and type rating being sought;

(i) Applicants seeking a private or commercial license 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.

(5) Perform the skill test under instrument flight rules 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 this Part, 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 co-pilot 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. For the renewal of a type rating the pilot shall:

(1) Within the preceding 12 calendar months, complete a proficiency check: in the areas of operation listed in the skill test for the appropriate category, type and if applicable class of aircraft.

(2) Have completed 10 route sectors within the 3 months preceding the expiry date.

(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.

(f) Re-issue. If the type rating has been expired the applicant shall:

(1) Have received refresher training from an authorized 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.

2.3.2.5 **Category II and III Authorization**

(a) The Authority will issue a Category II or Category III pilot authorization by letter, to accompany the pilot's license, when the pilot meets the requirements contained in paragraph and IS 2.3.2.5.

(b) General.

(3) A person, not flying for an AOC holder under Part 9, may not act as pilot of an aircraft during Category II or III operations unless that person holds a Category II or III pilot authorization for that category, class or type of aircraft.

(4) The applicant for a Category II or III pilot authorization shall:

(5) Hold a pilot license with an instrument rating or an ATPL; and

(6) Hold a category and class or type rating for the aircraft for which the authorization is sought.

(c) Knowledge. The applicant for a Category II or III pilot authorization shall have completed the theoretical knowledge instruction on the subjects as listed in IS 2.3.2.5.

(d) Experience. The applicant for a Category II or III pilot authorization 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 Category II or III pilot authorization shall have completed the flight instruction on the areas of operation listed in IS 2.3.2.5.

(f) Skill. The applicant for a Category II or III pilot authorization 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 this Part, the validity period of a Category II and III authorization is 6 months.

(h) Renewal. For the renewal of a Category II or III pilot authorization 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 Category II or the Category III have been expired the applicant shall:

(1) Have received refresher training from an authorized 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 **Complex Aeroplane Endorsement**

(a) No person shall act as pilot in command of a complex aeroplane, including a seaplane, unless the person has:

(1) Received and logged ground and flight training from an authorized instructor in a complex aeroplane or flight simulation training device 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 authorized instructor who certifies that person is proficient to operate a high performance aeroplane.

2.3.2.7 **High Performance Aeroplane Endorsement**

(a) No person shall act as pilot in command of a high performance aeroplane unless the person has:

(1) Received and logged ground and flight training from an authorized instructor in a high performance aeroplane or flight simulation training device 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 authorized instructor who certifies that person is proficient to operate a complex aeroplane.

2.3.2.8 **High Altitude Aircraft Endorsement**

(a) No person shall act as pilot in command of a pressurized aircraft capable of operating at high altitudes (an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 MSL) unless the person has:

(1) Received and logged ground training from an authorized instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished ground training in at least the in 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 any other physiological aspects of high-altitude flight.

(b) Received and logged flight training from an authorized instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished flight training in an aircraft or in a flight simulation training device that is representative of a pressurized aircraft, in at least the in the following subjects:

(i) Normal cruise flight operations while operating above 25,000 feet MSL;

(ii) Proper emergency procedures for simulated rapid decompression without actually depressurizing the aircraft; and

(iii) Emergency descent procedures.

2.3.2.9 **Night Vision Goggles Endorsement**

(a) No person shall act as pilot of an aircraft using night vision goggles, unless the person has received training from an authorized instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following ground training:

(1) Applicable portions of Part 2 and Part 8 that relate to night vision goggle limitations and flight operations;

(2) Aero medical 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;

(5) Night vision goggle 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 the person has received training from an authorized instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following flight training:

(1) Preflight and use of internal external aircraft light systems for night vision goggle operations;

(2) Preflight preparation of night vision goggles for night vision goggle operations;

(3) Proper piloting techniques when using night vision goggles during the takeoff, climb, enroute descent and landing phases of flight; and

(4) Normal, abnormal, and emergency flight operations using night vision goggles.

(c) The requirements under paragraphs (a) and (b) of this section 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 LCAR part 2 or part 8 conducted by an Examiner or Check Airman.

(3) A pilot proficiency check on night vision goggle operations conducted by a night vision goggle manufacturer or authorized instructor, when the pilot—

(i) Is employed by a government or law enforcement agency; and

(ii) Has logged at least 20 hours as pilot in command in night vision goggle operations.

2.3.3 STUDENT PILOTS

2.3.3.1 General Requirements

(a) Age. The applicant for a student pilot authorization shall be not less than 16 years of age.

Note: The age limit has been chosen arbitrarily.

(b) Knowledge. The applicant for a student pilot authorization shall receive and log ground training from an authorized instructor on the following subjects:

(1) Applicable sections of Part 2 for the category of aircraft to be flown and Part 8;

(2) Airspace rules and procedures for the aerodrome where the student will perform solo flight; and

(3) Flight characteristics and operation limitations for the make and model of aircraft to be flown.

(c) Pre-solo flight instruction. Prior to conducting a solo flight, a student pilot shall have:

(1) 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.

(2) Demonstrated satisfactory proficiency and safety, as judged by an authorized instructor, on the manoeuvres and procedures for the appropriate category, and class if applicable, of aircraft.

(d) Solo flight requirements: A student pilot shall not fly solo:

(1) Unless holding at least a Class 2 Medical Certificate; and

(2) Unless under the supervision of, or with the authority of, a licensed flight instructor, and

(3) In international flight unless there is a special or general arrangement between Liberia and the intended State of flight.

2.3.3.2 **Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training—Aeroplane Category**

(a) An applicant for a student pilot authorization 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**

(a) An applicant for a student pilot authorization 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**

(a) An applicant for a student pilot authorization 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**

(a) An applicant for a student pilot authorization in the airship category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.5.

2.3.3.6 **Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training—Balloon Category**

(a) An applicant for a student pilot authorization in the balloon category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.6.

2.3.3.7 **Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training—Glider Category**

(a) An applicant for a student pilot authorization in the glider category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.7.

2.3.4 **PRIVATE PILOT LICENCE**

2.3.4.1 **General Requirements**

(a) Age.

(1) The applicant for a PPL in all categories other than balloon and glider shall be not less than 17 years of age.

(2) The applicant for a PPL in the balloon or glider category shall be not less than 16 years of age.

(b) Medical fitness. The applicant for a PPL shall hold a current Class 2 Medical Certificate as issued under this Part.

(c) Knowledge areas. The applicant for a PPL shall receive and log ground training from an authorized instructor on the following subjects appropriate to the privileges granted to the holder of a private pilot license and appropriate to the category of aircraft to be included on the license:

(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 and balloon, 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.

Note: Guidance material to design training programs on human performance can be found in ICAO Doc 9683, Human Factors Training Manual.

(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 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) Radiotelephony:

(i) 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 PPL shall:

(1) Have received an endorsement for the knowledge test from an authorized 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 item (c).

(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 this Part.

(f) Skill. The applicant for a PPL shall:

(1) Have received an endorsement from an authorized 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 listed below, with a degree of competency appropriate to the privileges granted to the holder of a PPL.

(3) Have demonstrated the ability to—

(i) Recognize 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. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a PPL 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.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the license is five years.

(i) Renewal. A private pilot license that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the license, medical certificate, and recency of experience are current.

(j) Reissue. If the private pilot license 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 PPL – Aeroplane Category**

(a) Experience.

(1) The applicant for a PPL (A) shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, 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 40 or 35 hours, as the case may be. 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 authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totaling not less than 270 km (150 NM) in the course of which full-stop landings at two difference aerodromes shall be made.

(3) The holder of pilot licenses 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 receive and log not less than 20 hours of dual instruction from an authorized 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. The 20 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totaling 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 has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(ii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iii) Control of the aeroplane by external visual reference;

(iv) Flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;

(v) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;

(vi) Normal and cross-wind take-offs and landings;

(vii) Maximum performance (short field and obstacle clearance take-offs, short-field landings;

(viii) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;

(ix) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;

(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.

(3) If the privileges of the PPL (A) are to be exercised at night, the applicant shall have received 4 hours dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.

Note 1: Some States require night flying as part of the private license training. Other States require a separate night endorsement, and this practice is due to prohibition of flying at night without an IR. If a State requires a separate night endorsement, it should be noted on the license.

Note 2: Training can be performed by an individually authorized flight instructor, by an authorized flight instructor in a flying club, or in an Approved Training Organization.

(c) The requirements for the skill test for the PPL (A) are included in IS 2.3.4.2.

2.3.4.3 **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 40 hours of flight time, or 35 hours if completed during a course of approved training, 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 40 or 35 hours, as the case may be.

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 authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totaling 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 licenses 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 receive and log not less than 20 hours of dual instruction from an authorized 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. The 20 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totaling 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 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, 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 one hour;

(ix) Emergency operations, including simulated helicopter equipment malfunctions; authoritative approach and landing; and

(x) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

(xi) If the privileges of the PPL (H) are to be exercised at night, the applicant shall have received 4 hours 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 2.3.4.3.

2.3.4.4 **Experience, Flight Instruction and Skill Test for the PPL – Powered-Lift Category**

(a) Experience.

(1) The applicant for a PPL- Powered Lift shall have completed not less than 40 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 40 hours.

(2) When the applicant has flight time as a pilot of aircraft in other categories, the Authority should determine whether such experience is acceptable and if so, the extent to which the flight time in item (a) may be reduced.

(3) The applicant shall have completed in a powered lift aircraft not less than 10 hours of solo flight time under the supervision of an authorized flight instructor, including five hours of solo cross-country flight time with at least one cross-country flight totaling 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 shall have received not less than 20 hours dual instruction from an authorized instructor in at least the following areas:

(1) Recognize 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) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;

(8) Emergency operations, including simulated powered lift equipment malfunctions; power of reconversion to autorotation and authoritative approach, where applicable; transmission and interconnect driveshaft failure, where applicable; and

(9) 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 PPL—Airship Category**

(a) Experience. The applicant for a PPL- Airship shall have completed not less than 25 hours of flight time as pilot of airships including at least:

(1) Three hours of cross-country flight training in an airship with a cross-country flight totaling not less than 45 kilometers (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 of an aerodrome;

(3) Three hours of instrument time; and

(4) 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 authorized 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 **Experience, Flight Instruction and Skill Test for the PPL—Balloon Category**

(a) Experience. The applicant for a PPL- balloon shall have completed not less than 16 hours of flight time as pilot of balloons including at least 8 launches and accents, at least one of which must be solo.

(b) Flight Instruction. The applicant shall have received dual instruction in free balloons from an authorized instructor in at least the following areas:

(1) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;

(2) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;

(3) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;

(4) Collision avoidance precautions;

(5) Control of a free balloon by external visual references;

(6) Recognition of and recovery from rapid descents;

(7) Cross-country flying using visual reference and dead reckoning;

(8) Approaches and landings, including ground handling; and

(9) Emergency procedures.

(c) The requirements for the skill test for the PPL-Balloon category are included in IS 2.3.4.6.

2.3.4.7 Experience, Flight Instruction and Skill Test for the PPL—Glider Category

(a) Experience. The applicant shall have completed not less than 6 hours of flight time as a pilot of gliders including 2 hours' solo flight time during which not less than 20 launches and landings have been performed.

(b) Flight instruction. The applicant shall have received dual instruction in gliders from an authorized instructor in at least the following areas;

(1) Pre-flight operations, including glider assembly and inspection;

(2) Techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;

(3) Traffic pattern operations, collision avoidance precautions and procedures;

(4) Control of the glider by external visual reference;

(5) Flight throughout the flight envelope;

(6) Recognition of, and recovery from, incipient and full stalls and spiral dives;

(7) Normal and cross-wind launches, approaches and landings;

(8) Cross-country flying using visual reference and dead reckoning; and

(9) Emergency procedures.

(c) Crediting of time in other aircraft categories. The holder of a pilot license in the aeroplane category may be credited with 3 hours towards the 6 hours of flight time required for the glider license.

(d) The requirements for the skill test for the PPL—glider category are included in the IS 2.3.4.7.

2.3.5 COMMERCIAL PILOT LICENCE

2.3.5.1 General Requirements

(a) Age. The applicant for a CPL shall be not less than 18 years of age.

(b) Medical fitness. The applicant for a CPL shall hold a current Class 1 Medical Certificate issued under this Part.

(c) Knowledge areas. The applicant for a CPL shall receive and log ground training from an authorized instructor on the following subjects appropriate to the privileges granted to the holder of a commercial pilot license and appropriate to the category of aircraft to be included on the license:

(1) Air law:

(i) Rules and regulations relevant to the holder of a CPL;

(ii) Rules of the air; appropriate air traffic services practices and procedures.

(iii) Aircraft general knowledge:

(iv) Principles of operation and functioning of powerplants, systems and instruments;

(v) Operating limitations of the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;

(vi) Use and serviceability checks of equipment and systems of appropriate aircraft;

(vii) Maintenance procedures for airframes, systems and powerplants of appropriate aircraft;

(viii) For helicopters and powered-lift, transmission (power-trains) where applicable; and

(ix) For airships and balloons, physical properties and practical application of gases.

(2) 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 air traffic services flight plans; appropriate air traffic services procedures; and

(iv) In the case of helicopter and powered-lift, effects of external loading.

(3) Human performance:

(i) Human performance relevant to the appropriate aircraft type; and

(ii) Principles of threat and error management.

(4) 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 in respect of the elements having an effect upon aviation; the moment 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; and

(iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance.

(5) Navigation:

(i) Air navigation, including the use of aeronautical charts, instruments and navigation aids;

(ii) Understanding of the principles and characteristics of appropriate navigation systems; and

(iii) Operation of air borne equipment.

(iv) In the case of airships:

(A) Use, limitation and serviceability of avionics and instruments necessary for the 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; and

(C) Principles and characteristics of self-contained and external referenced navigation systems, operations of airborne equipment.

(6) Operation 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; and

(vii) In the case of the helicopter, and if applicable powered-lift, settling with power, ground resonance; retreating blade stall; dynamic roll-over and other operational hazards; safety procedures, associated with flight under VFR.

(7) Principles of flight:

(i) Principles of flight relating to the appropriate category of aircraft.

(8) 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 IS 2.3.5.2.

(d) Knowledge testing. The applicant for the CPL shall:

(1) Have received an endorsement for the knowledge test from an authorized 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 knowledge test on the knowledge subjects listed in IS 2.3.5.2.

(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 this Part.

(f) Skill. The applicant for a CPL shall:

(1) Have received an endorsement from an authorized 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 aeroplane, the areas of operation described in IS 2.3.5.2 with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to

(i) Operate the aeroplane within its limitations;

(ii) Complete all manoeuvres with smoothness and accuracy;

(iii) Exercise good judgment and airmanship;

(iv) Apply aeronautical knowledge; and

(v) 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 this Part, 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 in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;

(3) To act as PIC in commercial air transportation in an aircraft within the appropriate aircraft category certificated for single-pilot operation;

(4) To act as co-pilot in aircraft within the appropriate aircraft category required to be operated with a co-pilot; and

(5) For the airship category, to pilot an airship under IFR.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the license is five years.

(i) Renewal. A commercial pilot license that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the license, medical certificate, and recency of experience are current.

(j) Reissue. If the commercial pilot license has expired, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.

2.3.5.2 **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 for in an Approved Training Organisation under Part 3, as a pilot of aeroplanes, of which 10 hours may have been completed in a flight simulation training device.

(2) The applicant 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 totaling 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;

(iv) If the privileges of the license are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.

(3) The holder of a pilot license 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; or

(ii) 30 hours as PIC holding a PPL (H) on helicopters; or

(iii) 100 hours as PIC holding a CPL (H) on helicopters.

(4) The applicant for a CPL (A) shall hold a PPL (A) issued under this Part.

(b) Flight instruction.

(1) The applicant for a CPL (A) shall receive and log not less than 25 hours of dual instruction from an authorized instructor. These 25 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 commercial 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 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 cross-wind 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 transmitting controlled aerodromes, compliance with air traffic services procedures; and

(xiv) Communication 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 dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.

(c) Skill test. The requirement for the skill test for the commercial pilot license—aeroplane category are included in IS 2.3.5.2.

Note 1: Procedures for upset prevention and recovery training in actual flight are contained in ICAO Doc 9868, Procedures for Air Navigation Services – Training (PANS-TRG).

Note 2: Guidance on upset prevention and recovery training in actual flight are contained in ICAO Doc 10011, Manual on Aeroplane Upset Prevention and Recovery Training.

2.3.5.3 **Experience, Flight Instruction and Skill Test for the CPL—Helicopter Category**

(a) Experience.

(1) The applicant for a CPL (H) license shall have completed not less than 150 hours of flight time, or 100 hours if completed during an integrated course of approved training provided for in an Approved Training Organisation under Part 3, as a pilot of helicopters, of which 10 hours may have been completed in a flight simulation training device.

(2) The applicant 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 points shall be made;

(iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;

(iv) If the privileges of the license are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.

(3) The holder of a pilot license 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 this Part.

(b) Flight instruction.

(1) The applicant for a CPL(H) shall have received and log not less than 30 hours of dual instruction in helicopters from an authorized flight instructor on the subjects listed in IS 2.3.5.5.

(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) Recognize 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, authoritative approach and landing; and

(xii) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology

(xiii) As further specified in IS 2.3.5.5.

(3) If the privileges of the license are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation.

(c) Skill test. The requirement for the skill test for the commercial pilot license—helicopter category are included in IS 2.3.5.3.

2.3.5.4 **Experience, Flight Instruction and Skill Test for the CPL—Powered-Lift Category**

(a) Experience.

(1) The applicant for a CPL powered-lift category 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 Aviation Training Organisation under Part 3, as a pilot of aircraft. The Licensing Authority may determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.

(2) The applicant shall have completed in a powered-lift aircraft not less than:

(i) 50 hours as pilot in command;

(ii) 10 hours in cross-country flying as pilot-in command including a cross-country flight totaling not less than 540 km (300 NM) in the course of which full stop landing 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 5 take-offs and landings as PIC.

(3) When the applicant has flight time as 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 item (a) may be reduced.

(b) Flight instruction. The applicant shall have received dual instruction in powered-lift from an authorized instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognize and manage threats and errors to minimize their negative effects;

(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) 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; steep approaches;

(6) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

(7) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;

(8) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

(9) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;

(10) Emergency operations, including simulated powered-lift equipment malfunctions, where applicable; power of reconversion to autorotation; authoritative approach; transmission and interconnect driveshaft failure; and

(11) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

(c) Skill test. The requirement for the skill test for the commercial pilot license—powered-lift category are included in IS 2.3.5.4.

2.3.5.5 **Experience, Flight Instruction and Skill Test for the CPL – Airship Category**

(a) Experience.

(1) The applicant shall have completed not less than 200 hours of flight time as a pilot.

(2) The applicant 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 item (b) below.

(b) Flight instruction. The applicant shall have received dual instruction in airships from an authorized instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognize 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 airships by external visual reference;

(6) Recognition of leak;

(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 air traffic services procedures; and

(13) Communications procedures and phraseology.

(c) Skill test. The requirement for the skill test for the commercial pilot license—airship category are included in IS 2.3.5.5.

2.3.5.6 **Experience, Flight Instruction and Skill Test for the CPL—Balloon Category**

(a) Experience. The applicant shall have completed at least:

(1) 35 hours flight time as a pilot, including at least:

(i) 20 hours as a pilot of free balloons;

(ii) 10 flights in a free balloon; and

(iii) 2 flights in a free balloon as the pilot in command.

(2) 10 hours of flight training that includes at least 10 training flights in a free balloon on the areas of operation listed in (b) below, including at least:

(i) For a gas balloon rating:

(A) 2 training flights of 2 hours each in a bas balloon on the areas of operations appropriate to a gas balloon within 60 days prior to application for the rating;

(B) 2 flights performing the functions of PIC in a gas balloon on the appropriate areas of operation; and

(C) 1 flight involving a controlled ascent to 5,000 feet above the launch site.

(ii) For a hot air balloon rating:

(A) 3 training flights of 1 hour each in a balloon with an airborne heater on the areas of operation appropriate to a balloon with an airborne heater within 60 days prior to application for the rating;

(B) 2 solo flights in a balloon with an airborne heater on the appropriate areas of operations; and

(C) 1 flight involving a controlled ascent to 3,000 feet above the launch site.

(b) Flight instruction. The applicant shall have received dual instruction in balloons from an authorized instructor in at least the following areas to the level of performance required for the commercial pilot:

(1) Recognize and manage threats and errors;

(2) Technical subjects;

(3) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;

(4) Pre-flight lesson on a manoeuvre to be performed in flight;

(5) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;

(6) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;

(7) Collision avoidance precautions;

(8) Control of a free balloon by external visual references;

(9) Recognition of and recovery from rapid descents;

(10) Navigation and cross-country flying using visual reference and dead reckoning;

(11) Approaches and landings, including ground handling;

(12) Emergency procedures; and

(13) Post-flight procedures.

(c) Skill test. The requirement for the skill test for the commercial pilot license—balloon category are included in IS 2.3.5.6.

2.3.5.7 **Experience, Flight Instruction and Skill Test for the CPL—Glider Category**

(a) Experience. The applicant shall have completed at least:

(1) 25 hours flight time as a pilot in a glider and that flight time must include at least 100 flights in a glider as pilot in command, including at least

(i) 3 hours of flight training or 10 training flight in gliders on the areas of operation listed in (b) below, and

(ii) 2 hours of solo flight that includes not less than 10 solo flights in gliders on the areas of operations listed in (b) below; or

(2) 200 hours of flight time as a pilot in either aeroplane, helicopter or powered-lift aircraft, and 20 flights in gliders as pilot in command, including at least

(i) 3 hours of flight training or 10 training flights in gliders on the areas of operation listed in (b) below, and

(ii) 5 solo flights in a glider on the areas of operation listed in (b) below.

(b) Flight instruction. The applicant shall have received dual instruction in a glider from an authorized instructor in at least the following areas of operation to the level of performance required for a commercial pilot:

(1) Recognize and manage threats and errors;

(2) Pre-flight preparation;

(3) Pre-flight procedures

(4) Aerodrome and gliderport operations;

(5) Launches and landings;

(6) Performance speeds;

(7) Soaring techniques;

(8) Performance manoeuvres;

(9) Navigation

(10) Slow flight and stalls

(11) Emergency procedures; and

(12) Post-flight procedures.

(c) Skill test. The requirement for the skill test for the commercial pilot license—glider category are included in IS 2.3.5.7.

2.3.6 MULTI-CREW PILOT LICENCE—AEROPLANE

2.3.6.1 General Requirements

(a) Age. The applicant for the MPL shall be not less than 18 years of age.

(b) Medical fitness. The applicant for the MPL shall hold a current Class 1 Medical Certificate issued under this Part.

(c) Knowledge. The applicant for the MPL shall meet the requirements specified in 2.3.7.1 (c) for the ATPL appropriate to the aeroplane category.

(d) Knowledge testing. The applicant for an MPL shall

(1) Have received an endorsement for the knowledge test from an authorized 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 specified in 2.3.7.1 (c).

Note: Depending upon the particular MPL curriculum, the knowledge test for the MPL 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 shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.

(f) Skill. The applicant for an MPL shall demonstrate the skills required for fulfilling all the required competency units in IS: 2.3.6.2 as pilot flying and pilot not flying, to the level required to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR, and have been continuously assessed in the training progress of acquiring the following skills:

(1) recognize and manage threats and errors

(2) smoothly and accurately, manually control the aeroplane within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;

(3) operate the aeroplane in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;

(4) perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight; and

(5) communicate effectively with 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 standard operating procedures (SOPs) and use of checklists.

(g) Privileges. The privileges of the holder of a multi-crew pilot license shall be as follows:

(1) Subject to compliance with the requirements specified in this Part, the privileges of the holder of a multi-crew pilot license shall be:

(i) to exercise all the privileges of the holder of a private pilot license in the aeroplane category provided the private pilot experience requirements of paragraph 2.3.4.2 have been met;

(ii) to exercise the privileges of the instrument rating in a multi-crew operation; and

(iii) to act as co-pilot of an aeroplane required to be operated with a co-pilot.

(2) Before exercising the privileges of the instrument rating in a single-pilot operation in aeroplanes, the license holder shall have demonstrated an ability to act as pilot-in-command in a single-pilot operation exercised by reference solely to instruments and shall have met the instrument rating skill requirement specified in 2.3.8.2 appropriate to the aeroplane category.

(3) Before exercising the privileges of a commercial pilot license in a single-pilot operation in aeroplanes, the license holder shall have:

(i) completed in aeroplanes 70 hours, either as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;

(ii) completed 20 hours of cross-country flight time as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and 10 hours as pilot-in-command under supervision, including a cross-country flight totaling 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 commercial pilot license specified in 2.3.5.1 (c), 2.3.5.1 (f), 2.3.5.2 (a)(2) (with the exception of (i)) appropriate to the aeroplane category.

Note 1: When a Contracting State grants single-pilot operation privileges to the holder of a multi-crew pilot license, it can document the privileges through an endorsement of the multi-crew pilot license or through the issuance of a commercial pilot license in the aeroplane category.

Note 2: Certain privileges of the license are curtailed by license holders when they reach their 65th birthday.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the license is five years.

(i) Renewal. A multi-crew pilot license that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the license, medical certificate, and recency of experience are current.

(j) Reissue. If the multi-crew pilot license has expired, the applicant shall have received refresher training acceptable to the Authority and passed the multi-crew pilot skill test.

2.3.6.2 Experience, Flight Instruction, and Skill Test for the Multi-crew Pilot License—Aeroplane Category

(a) Experience. The applicant shall have completed in an approved training course not less than 240 hours as pilot flying and pilot not flying of actual and simulated flight.

(1) The flight experience in actual flight shall include at least the experience for a PPL (A) at 2.3.4.2, upset prevention and recovery training, night flying and flight by reference solely to instruments.

(2) In addition to meeting the provisions of 2.3.6.2 (a)(1), the applicant shall have gained, in a turbine-powered aeroplane certificated for operations with a minimum crew of at least two pilots, or in a flight simulation training device approved for that purpose by the Authority, the experience necessary to achieve the advance level of competency defined in IS: 2.3.6.2.

(b) Flight instruction. The applicant shall have received dual flight instruction in all the competency units specified in IS: 2.3.6.2 to the level required for the issue of the multi-crew pilot license, to include the competency units required to pilot under instrument flight rules.

(c) Skill test. The requirement for the skill test for the multi-crew pilot license—aeroplane category are included in IS 2.3.6.2.

Note 1: Procedures for upset prevention and recovery training in actual flight are contained in ICAO Doc 9868, Procedures for Air Navigation Services (PANS-TRG).

Note 2: Guidance on upset prevention and recovery training in actual flight is contained in ICAO Doc 10011, Manual on Aeroplane Upset Prevention and Recovery Training.

2.3.7 AIRLINE TRANSPORT PILOT LICENCE

2.3.7.1 General Requirements

(a) Age. The applicant for an ATPL shall be not less than 21 years of age.

(b) Medical fitness. The applicant for an ATPL shall hold a current Class 1 Medical Certificate issued under this Part.

(c) Knowledge. The applicant for an ATPL shall receive and log ground training from an authorized instructor on the following subjects appropriate to the privileges of the ATPL and to the category of aircraft intended to be included on the license:

(1) Air law:

(i) Rules and regulations relevant to the holder of an ATPL; rules of the air; appropriate air traffic services practices and procedures

(2) Aircraft general knowledge:

(i) General characteristics and limitations of electrical, hydraulic, pressurization 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 if applicable, powered-lift transmission (power-trains);

(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 air traffic services flight plans; appropriate air traffic services 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 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 in respect of the elements having an effect upon aviation; the moment 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; jetstreams;

(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 roll-over and other operational hazards; safety procedures, associated with flight under VFR;

(8) Principles of flight:

(i) Principles of flight relating to the appropriate aircraft category;

(9) Radiotelephony

(i) Communication procedures and phraseology; action to be taken in case of communication failure;

(d) Knowledge testing. The applicant for the ATPL shall:

(1) Have received an endorsement for the knowledge test from an authorized 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 item (2) above.

(e) Experience and flight instruction. An applicant for an ATPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.

(f) Skill. The applicant for an ATPL shall:

(1) Have received an endorsement from an authorized instructor who certifies that the person is prepared for the required skill test; and

(2) Have 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 co-pilot, the following procedures and manoeuvres:

(i) Pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services 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; and

(v) In the case of the aeroplane and powered-lift, procedures and manoeuvres for instrument flight as described in 2.3.7, including simulated engine failure.

(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) Have demonstrated by passing a skill test, the ability to perform the areas of operation described in IS 2.3.7.2, IS 2.3.7.3, or IS 2.3.7.4, 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 recognize and manage threats and errors;

(ii) Complete all manoeuvres with smoothness and accuracy 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;

(iii) Operate the aircraft in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;

(iv) Perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight;

(v) Exercise good judgment and airmanship, to include structured decision making and the maintenance of situational awareness; and

(vi) Communicate effectively with the other flight crewmembers and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures and use of checklists.

(g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an ATPL shall be:

(1) To exercise all the privileges of the holder of a PPL and CPL of 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 co-pilot in commercial air transportation in an aircraft of the appropriate category, and class if applicable.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the license is five years. For renewal or reissue, see 2.2.1.7.

(i) Renewal. An airline transport pilot license that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the license, medical certificate, and recency of experience and proficiency are current.

(j) Reissue. If the airline transport pilot license has expired, the applicant shall have received refresher training acceptable to the Authority and passed the airline transport pilot skill test.

2.3.7.2 **Experience, Flight Instruction and Skill Test for the ATPL—Aeroplane Category**

(a) Experience.

(4) 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 a flight simulation training device. The applicant shall have completed in aeroplanes not less than:

(5) 250 hours, either as PIC, or made up by not less than 100 hours as PIC and the necessary additional flight time as co-pilot 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;

(6) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as co-pilot 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;

(7) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and

(8) 100 hours of night flight as PIC or as co-pilot.

(9) Holders of a CPL(H) will be credited with 50% of their helicopter flight time as PIC towards the flight time required in (1).

(10) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.6.3.

(11) The applicant for an ATPL (A) shall be the holder of a CPL (A) with instrument and multi-engine rating issued under this Part.

(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.

Note: The experience requirements provided here exceed the ICAO Annex 1 experience requirements for the ATPL(A) that were revised in Amendment 167 to accommodate the addition of the MPL by allowing greater crediting of PIC time under supervision and to accommodate existing integrated ATPL programs in some States by reducing the required PIC time. Part 2 at present is a modular approach to licensing and does not contain requirements for the MPL.

(c) Skill test. The requirement for the skill test for the ATPL—aeroplane category are included in IS 2.3.7.2.

2.3.7.3 **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 a flight simulator. 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 co-pilot 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 co-pilot 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 as co-pilot.

(2) Holders of a CPL (A) will be credited with 50 percent of their aeroplane flight time as PIC towards the flight time required in (1).

(3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.7.3.

(4) The applicant for an ATPL (H) shall be the holder of a CPL (H) issued under this Part.

(b) Flight instruction. The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.

Note: The PIC experience requirements provided here exceed the ICAO Annex 1 experience requirements for the ATPL(H) that were revised in Amendment 167 to accommodate existing integrated ATPL programs in some States by reducing the required PIC time. Part 2 at present is a modular approach to licensing.

(c) Skill test. The requirement for the skill test for the ATPL—helicopter category are included in IS 2.3.7.3.

2.3.7.4 **Experience, Flight Instruction and Skill Test for the ATPL—Powered-Lift Category**

(a) Experience.

(1) The applicant for an ATPL- powered-lift category 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 a flight simulator 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 co-pilot performing, under the supervision of the PIC, the duties and functions of PIC, in a method 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 co-pilot performing under supervision of the PIC in a method acceptable to the Authority.

(iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time.

(iv) 25 hours of night time as PIC or co-pilot.

(2) The Authority may determine if pilot flight time in other aircraft categories may be credited toward meeting the 1500-hour flight time in item (1) above.

(3) The applicant for an ATPL powered-lift shall be the holder of a CPL powered-lift issued under this Part.

(b) Flight instruction. The applicant for an ATPL powered-lift category shall have received the dual flight instruction required for the issue of the CPL powered lift category and for the issue of the instrument rating.

Note: The PIC experience requirements provided here exceed the ICAO Annex 1 experience recommendation for the ATPL (PL) that were revised in Amendment 167 to accommodate existing integrated ATPL programs in some States by reducing the required PIC time. Part 2 at present is a modular approach to licensing.

(c) Skill test. The requirements for the skill test for the ATPL—powered lift category are included in IS 2.3.7.4.

2.3.8 **INSTRUMENT RATING**

2.3.8.1 **General Requirements**

(a) Age. The applicant for an IR shall be not less than 17 year of age.

(b) Medical fitness. The applicant for an IR shall hold either a Class 1 or 2 medical certificate issued under this Part as appropriate the level of license held. The applicant for an IR holding a PPL shall have established his/her 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 authorized instructor on the following subjects:

(1) Air law:

(i) Rules and regulations relevant to flight under IFR; related air traffic services 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 autopilot.

(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 air traffic services 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 radio navigation aids.

(ii) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids.

(7) Operational procedures for the aircraft category 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.

(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.

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required knowledge test on the knowledge subjects listed in item (c) above.

(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 this Part.

(f) Privileges. Subject to compliance with the requirements specified in this Part, 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 (g)(3).

(g) Validity. Subject to compliance with the requirements specified in this Part, the validity period of an IR is 1 year.

(h) Renewal:

(1) For the renewal of a single-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.8.2.

(2) For the renewal of a multi-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.8.2.

(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 instrument rating has been expired, the applicant shall:

(1) Have received refresher training from an authorized 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 2.3.8.2.

Note: The instrument rating is included in the ATPL (A) and the CPL(AS). An authority may combine the IR requirements with other licenses.

2.3.8.2 **Experience, Flight Instruction, Skill Test and Proficiency Check for the IR**

(a) Experience.

(3) The applicant for an IR shall hold a pilot license with an aircraft category, and class rating if applicable, for the instrument rating sought.

(4) 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 a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorized instructor.

(b) Flight instruction.

(1) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in (e)(2)(ii) while receiving and logging dual instruction in aircraft from an authorized flight instructor.

(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 instrument rating:

(i) Pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic services 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 instrument rating are to be exercised on multi-engine aircraft, the applicant shall have received dual instrument flight instruction in such an aircraft from an authorized flight instructor. 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.

(c) Skill. The applicant for an IR shall:

(1) Have received an endorsement from an authorized 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 the areas of operation described in IS 2.3.8.2 with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:

(i) Recognize and manage threats and errors;

(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;

(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 crewmembers.

(3) Have 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 IS 2.3.8.2, if the privileges of the instrument rating are to be exercised on such aircraft.

(d) The skill test and proficiency check for the instrument rating is included in IS 2.3.8.2.

2.3.9 INSTRUCTORS FOR PILOT LICENSING

2.3.9.1 General Requirements

(a) Applicability.

(1) This Section prescribes the requirements for the issuance of instructor licenses, ratings or authorizations, the conditions under which those ratings and authorizations are necessary, and the privileges and limitations on those ratings and authorizations.

(2) All instructors shall read, speak, write and understand the language of Liberia and English, if required.

(3) The following instructor licenses, ratings and authorizations are issued under this part:

(i) Flight Instructor license;

(ii) Ground Instructor license, with basic, advanced, and instrument ratings; and

(iii) Instructor Authorization for Flight Simulation Training.

2.3.9.2 Flight Instructor License Requirements, Skill Test and Proficiency Check

(a) Age. The applicant for a flight instructor license shall be of the appropriate age for the underlying license to be held.

(b) Medical fitness. The applicant for a flight instructor license shall have a Class 1 medical certificate.

(c) Knowledge.

(1) Receive and log training from an authorized instructor and pass a flight instructor knowledge test on:

(i) The aeronautical knowledge areas for a student pilot authorization, private, commercial and airline transport pilot licenses applicable to the aircraft category for which flight instructor privileges are sought; and

(ii) The aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.

(2) Meet the requirements for fundamentals of knowledge instruction as listed in 2.2.6

(d) Experience. The applicant shall hold a license with the aircraft category, and if applicable class and/or type rating, that is appropriate to the flight instructor rating sought as follows:

(1) For an instructor license in the aeroplane category – hold either a CPL or ATPL aeroplane category with instrument rating and appropriate class and/ or type ratings;

(2) For an instructor license in the powered-lift category – hold either a CPL or ATPL powered-lift category with instrument rating an as applicable, class or type rating;

(3) For an instructor license in the helicopter category – hold either a CPL or ATPL helicopter category and any applicable class or type rating;

(4) For an instructor license in the balloon category – hold a CPL balloon category with applicable class rating;

(5) For an instructor license in the airship category – hold a CPL airship category and any applicable ratings;

(6) For an instructor license in the glider category – hold a CPL glider category and any applicable ratings; and

(7) For an instructor instrument rating license – hold an IR in the appropriate category of aircraft.

(e) Flight instruction. Receive flight instruction from an authorized instructor in the areas of:

(1) Flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(2) Have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

(f) Skill.

(1) Receive a logbook endorsement from an authorized instructor to indicate that the applicant is proficient on the areas of operation listed in item 2 below, appropriate to the flight instructor rating sought;

(2) Pass the required skill test that is appropriate to the flight instructor license sought on the areas of operation in IS 2.3.9.2 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 flight simulation training device that is representative of the category, and if applicable class and/or type of aircraft for the license and rating sought, and used in accordance with an approved course at an ATO certified under Part 3.

(g) Privileges, limitations and qualifications.

(1) A flight instructor is authorized within the limitations of that person's flight instructor license, and pilot license and ratings, to give training and endorsements that are required for, and relate to:

(i) A student pilot authorization;

(ii) A pilot license;

(iii) A flight instructor license;

(iv) A ground instructor license;

(v) An aircraft category rating;

(vi) An aircraft class rating;

(vii) An instrument rating;

(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 this Part, the validity period of instructor license is 2 years.

(i) Renewal. A flight instructor license 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 flight instructor license; or

(ii) An additional flight instructor rating; or

(2) Presents to an Authority inspector—

(i) A record of training students that shows during the preceding 24 calendar months the flight instructor has endorsed at least five students for a skill test for a license or rating, and at least 80 percent of those students passed that test on the first attempt;

(ii) A record that shows that within the preceding 24 calendar months, service as a company check pilot, chief flight instructor, company check airman, or flight instructor in a Part 9 operation, or in a position involving the regular evaluation of pilots; or

(iii) A graduation certificate showing that the pilot has successfully completed an approved flight instructor refresher course consisting of ground training or flight training, or both, within the 90 days preceding the expiration month of his or her flight instructor license.

(3) If a flight instructor accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her flight instructor license—

(i) The Authority shall consider that the flight instructor accomplished the renewal requirement in the month due; and

(ii) The Authority shall renew the current flight instructor rating for an additional 24 calendar months from its expiration date.

(4) A flight instructor may accomplish the skill test required by this subsection in an approved course conducted by an ATO certified under Part 3.

(j) Reissue. If the instructor license has expired, the applicant shall:

(1) Have received refresher training from an authorized instructor with an endorsement that the person is prepared for the required skill test; and

(2) Pass the prescribed skill test.

(k) Additional flight instructor licenses. An applicant for an additional flight instructor license shall meet the requirements listed in 2.3.9.2 that apply to the flight instructor rating sought.

(l) Flight instructor records. A flight instructor 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 license 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.

(3) Retain the records required by this subjection for at least 3 years.

(m) Flight instructor limitations and qualifications. The holder of a flight instructor license shall observe the following limitations and qualifications.

(1) Hours of training. In any 24-consecutive-hour period, a flight instructor may not conduct more than 8 hours of flight training.

(2) Required license and ratings. A flight instructor may not conduct flight training in any aircraft for which the flight instructor does not hold a pilot license and flight instructor license 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 instrument rating on his or her flight instructor rating and pilot license.

(4) Limitations on endorsements. A flight instructor may not endorse the following:

(i) Student pilot's license or logbook for solo flight privileges, unless that flight instructor has—

(A) Given that student the flight training required for solo flight privileges required by this subpart;

(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 aircraft to be flown.

(ii) Student pilot's license and logbook for a solo cross country flight, unless that flight instructor 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) Student pilot's license and logbook for solo flight in a Class B airspace area or at an airport within Class B airspace unless that flight instructor has—

(A) Given that student ground and flight training in that Class B airspace or at that airport; and

(B) Determined that the student is proficient to operate the aircraft safely.

(iv) Logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements 8.4.11(a)(3); or

(v) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of 8.4.10(b).

(5) Training in a multiengine aeroplane or a helicopter. A flight instructor may not give training required for the issuance of a license or rating in a multiengine aeroplane or a helicopter, unless that flight instructor has at least 5 flight hours of PIC time in the specific make and model of multiengine aeroplane or helicopter, as appropriate.

(6) Qualifications of the flight instructor for training first-time flight instructor applicants.

(i) No flight instructor may provide instruction to another pilot who has never held a flight instructor license unless that flight instructor—

(A) Holds a current ground or flight instructor license with the appropriate rating, has held that license for at least 24 months, and has given at least 40 hours of ground training; or

(ii) Holds a current ground or flight instructor license with the appropriate rating, and has given at least 100 hours of ground training in a course which has been approved by the Authority.

(iii) Meets the eligibility requirements prescribed in 2.2.6.

(iv) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as a flight instructor.

(v) For training in preparation for a glider rating, has given at least 80 hours of flight training as a flight instructor.

(7) Prohibition against self-endorsements. A flight instructor may not make any self-endorsement for a license, rating, flight review, authorization, operating privilege, skill test, or knowledge test that is required by Part 2.

(8) Category II and Category III instructions: A flight instructor may not give training in Category II or Category III operations unless the flight instructor has been trained and tested in Category II or Category III operations as applicable.

Note: Class B airspace as defined in 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.

(n) The skill test and proficiency check for flight instructor ratings in the categories of aeroplane, helicopter, powered-lift, airship, balloon, and glider, as well as instrument ratings (aeroplane, helicopter, and powered-lift) and additional type ratings are included in IS 2.3.9.2.

2.3.9.3 **Instructor Authorization for Flight Simulation Training**

(a) Current and former holders of professional pilot licenses, having instructional experience can apply for an authorization to provide flight instruction in a flight simulation training device, provided the applicant has at least 1 year experience as instructor in flight simulation training devices.

(1) Skill. The applicant shall have demonstrated in a skill test, in the category and in the class or type of aircraft for which instructor authorization 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 this Part, the privileges of the holder of an authorization are to carry out instruction in a flight simulation training device 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 this Part, the validity period of an instructor authorization for flight simulation training is 1 year.

(4) Renewal. Renewal of the authorization requires the successful completion of a proficiency check.

(5) Reissue. If the authorization has expired, the applicant must complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorization privileges are sought.

2.3.9.4 **Ground Instructor License**

(a) Age. The applicant for a ground instructor license shall be at least 18 years of age.

(b) Knowledge.

(1) Receive and log training from an authorized instructor and pass a knowledge test on the aeronautical knowledge areas appropriate to the aircraft category, for the license and ratings below as applicable—

(i) For a basic rating, the knowledge for a student and private pilot license as listed in this Part;

(ii) For an advanced rating, the student, private, commercial and airline transport pilot knowledge areas as listed in this Part.

(iii) For an instrument rating, the knowledge for the instrument rating as listed in this Part.

(2) Meet the requirements of for fundamentals of knowledge instructing as listed in 2.2.6

(c) Privileges. The holder of a ground instructor license may exercise the privileges appropriate to the license and rating held.

(1) A person who holds a ground instructor license with a basic rating is authorized to provide—

(i) Ground training in the aeronautical knowledge areas required for the issuance of a student pilot authorization or private pilot license 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 private pilot license.

(2) A person who holds a ground instructor license with an advanced rating is authorized to provide—

(i) Ground training in the aeronautical knowledge areas required for the issuance of any license or rating;

(ii) Ground training required for any flight review; and

(iii) A recommendation for a knowledge test required for the issuance of any license.

(3) A person who holds an instrument ground instructor rating is authorized to provide—

(i) Ground training in the aeronautical knowledge areas required for the issuance of an instrument rating;

(ii) Ground training required for an instrument proficiency check; and

(iii) A recommendation for a knowledge test required for the issuance of an instrument rating.

(4) A person who holds a ground instructor license is authorized, within the limitations of the license and ratings on the ground instructor license, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in (1) through (3) of this subsection.

(5) Validity The validity period for a ground instructor license is 1 year

(6) Renewal. The applicant for renewal of a ground instructor license shall provide to the Authority satisfactory evidence of at least 3 months service as a ground instructor within the past 12 months.

(7) Reissue. If the ground instructor license has expired, the applicant for reissuance must complete refresher training acceptable to the Authority and receive an endorsement from a licensed ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in this part for the license and rating.

2.3.10 DESIGNATED PILOT EXAMINERS

2.3.10.1 Requirements and Skill Test

(a) Age. An applicant for a designated pilot examiner shall be at least 21 years of age.

(b) Medical. An applicant for a designated pilot examiner shall have a Class 1 medical certificate.

(c) General eligibility. An applicant for a designated pilot examiner 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 flight instructor ratings for which examining authority is sought or be serving in a comparable position as an air operator check airman or check pilot or comparable position in an Approved Training Organization;

(3) Have a reputation for integrity and dependability in the industry and the community;

(4) Have a good record as a pilot and flight instructor in regard to accidents, incidents, and violations; and

(5) Have pilot and instructor license/ratings that have never been revoked for falsification or forgery.

(d) Knowledge: The applicant for a designated pilot examiner 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 designated pilot examiner shall pass a skill test conducted by an inspector of the Authority who holds a current and valid license with appropriate category, and if applicable class and type ratings, in the areas of operation contained in IS 2.3.10.1.

(f) Maintaining currency. After designation, a designated pilot examiner shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority, and

(2) Maintain a current and valid:

(i) Pilot license, and if applicable, class/type ratings appropriate to the designation;

(ii) Flight instructor license and ratings applicable to the designation; and

(iii) Class I medical certificate.

(g) 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 license and rating(s) as listed on the designated pilot examiner's certificate of designation and identification card.

(h) Validity. Subject to compliance with the requirements specified in this Part, 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 IS 2.3.10.1

(j) Additional designations. When the Authority deems it necessary for a designated pilot examiner to receive additional designations, the designated pilot examiner:

(1) Shall meet all the requirements in this Part 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 IS 2.3.10.1.

2.3.10.2 **Experience Requirements for Private Pilot Examiner (PPE)**

(a) Experience: PPE— Aeroplane Category. The applicant shall have at least:

(1) A CPL(A), appropriate class rating(s) and in IR(A);

(2) A valid flight instructor license with an aeroplane category and appropriate class rating(s).

(3) 2,000 hours as PIC which includes at least:

(i) 1,000 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 300 hours in the class of airplane for which the designation is sought; and

(iii) 100 hours in aeroplanes at night.

(4) 500 hours as a flight instructor in aeroplane which includes at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought.

(b) Experience: PPE—Helicopter Category. The applicant shall have at least:

(1) A CPL (H), appropriate class rating(s).

(2) A valid flight instructor license with a helicopter category and appropriate class rating(s).

(3) 1,000 hours as PIC which includes 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 flight instructor in helicopters, as appropriate for the designation sought.

(c) Experience: PPE—Powered-Lift Category. The applicant shall have at least:

(1) A CPL powered-lift category with an instrument powered-lift rating.

(2) A valid flight instructor license with a powered-lift category.

(3) 2,000 hours as PIC which includes at least:

(i) 1,000 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 a flight instructor in powered-lift.

(d) Experience: PPE—Airship Category. The applicant shall have at least:

(1) A CPL airship category and any applicable class rating(s).

(2) A valid flight instructor license with an airship category and any applicable class rating(s).

(3) 1,000 hours as PIC which includes 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 a flight instructor in airships.

(e) Experience: PPE—Balloon Category. The applicant shall have at least:

(1) A CPL balloon category and applicable class rating(s).

(2) A valid flight instructor license with a balloon category and appropriate class rating(s).

(3) 200 hours as PIC which includes at least:

(i) 100 hours in balloons; and

(ii) 20 hours in balloons in the class, for which the designation is sought within the past year, including 10 flights in balloons of at least 30 minutes duration each.

(4) 50 hours as a flight instructor in balloons in the class, for which the designation is sought, of which 10 hours were accrued within the past year.

(f) Experience: PPE—Glider Category. The applicant shall have at least:

(1) A CPL glider category rating.

(2) A valid flight instructor license with a glider category rating.

(3) 500 hours as PIC which includes at least:

(i) 200 hours in gliders; and

(ii) 10 hours in gliders within the past year that includes at least 10 flights in gliders.

(4) 100 hours as a flight instructor in gliders.

2.3.10.3 **Experience Requirements for Commercial and Instrument Rating Pilot Examiner (CIRE)**

(a) Experience: CIRE—Aeroplane Category. The examiner applicant shall have at least:

(1) A commercial pilot license with an aeroplane category rating, appropriate class rating(s) and an Instrument –Aeroplane rating.

(2) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.

(3) 2,000 hours as PIC, which includes at least:

(i) 1,000 hours in aeroplanes, of which 300 hours were accrued within the past year;

(ii) 500 hours in the class of aeroplane for which the 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 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 a flight instructor in aeroplanes which include 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 commercial pilot license with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.

(2) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.

(3) 2,000 hours as PIC, which includes 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 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 a flight instructor in helicopters, which include 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 commercial pilot license with a powered-lift category rating, any applicable class rating(s) and an Instrument –Powered-lift rating.

(2) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.

(3) 2,000 hours as PIC, which includes at least:

(i) 1,000 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 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 a flight instructor in powered-lifts, which include at least:

(i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts.

2.3.10.4 **Experience Requirements for Commercial Pilot Examiners (CE)**

(a) Experience: CE—Helicopter Category. The examiner applicant shall have at least:

(1) A commercial pilot license with a helicopter category rating.

(2) A valid flight instructor certificate with a helicopter category rating.

(3) 2,000 hours as PIC, which includes at least:

(i) 500 hours in helicopters, of which 100 hours were accrued within the past year;

(ii) For authority to conduct skill tests in large helicopters—

(iii) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and

(iv) 25 hours for each additional type of large helicopter for which designation is sought.

(4) 250 hours as a flight instructor in helicopters, which include at least:

(v) 50 hours of instrument flight instruction in helicopters.

(b) Experience: CE—Airship Category. The applicant shall have at least:

(1) A CPL with airship category rating and any applicable class rating(s);

(2) A valid flight instructor license with an airship category and any applicable class rating(s).

(3) 1,000 hours as PIC which includes 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 a flight instructor in airships.

(c) Experience: CE—Balloon Category. The applicant shall have at least:

(1) A CPL balloon category and applicable class rating(s).

(2) A valid flight instructor license with a balloon category and applicable class rating(s).

(3) 200 hours as PIC which includes at least:

(i) 100 hours in balloons; and

(ii) 20 hours in balloons in the class for which the designation is sought within the past year, including 10 flights in balloons of at least 30 minutes duration each.

(4) Held a commercial pilot license with balloon category rating and applicable class rating for at least 1 year prior to designation.

(5) 50 hours as a flight instructor in balloons in the class for which the designation is sought, of which 10 hours were accrued within the past year.

(d) Experience: CE—Glider Category. The applicant shall have at least:

(1) A CPL with glider category rating.

(2) A valid flight instructor license with a glider category rating.

(3) 500 hours as PIC which includes at least:

(i) 250 hours in gliders; and

(ii) 20 hours in gliders within the past year that includes at least 50 flights in gliders.

(4) 200 hours as a flight instructor, including 100 hours of flight instruction given in gliders.

2.3.10.5 **Experience Requirements for Airline Transport Pilot (ATPL) Examiners (ATPE)**

(a) Experience: ATPE—Aeroplane Category. The examiner applicant shall have at least:

(1) An ATPL with an aeroplane category rating, appropriate class rating(s) and an Instrument—Aeroplane rating.

(2) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.

(3) 2,000 hours as PIC, which includes at least:

(i) 1,500 hours in aeroplanes, of which 300 hours were accrued within the past year.

(ii) 500 hours in the class of aeroplane for which the 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 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 a flight instructor in aeroplanes which include 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 either a CPL (A) or ATPL (A) or an IR (A).

(b) Experience: ATPE—Helicopter Category. The examiner applicant shall have at least:

(1) An ATPL with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.

(2) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.

(3) 2,000 hours as PIC, which includes at least:

(i) 1,200 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 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 a flight instructor in helicopters, which include at least:

(i) 100 hours of flight instruction given in the 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 with a powered-lift category rating, any applicable class rating(s) and an Instrument –Powered-lift rating.

(2) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.

(3) 2,000 hours as PIC, which includes at least:

(i) 1,500 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 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 a flight instructor in powered-lifts, which include at least:

(i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts; and

(ii) 150 hours flight instruction given for either a CPL- powered-lift, ATPL – powered-lift or IR-powered-lift.

2.3.10.6 **Experience Requirements for Flight Instructor Examiner (FIE)**

(a) The examiner applicant shall have at least:

(1) The requirements for a commercial examiner or a commercial instrument rating examiner designation, as appropriate for the category and class of aircraft pertinent to the FIE designation sought; and.

(2) Have held a Commercial Examiner or Commercial and Instrument Rating Examiner designation for at least a year prior to designation as a FIE.

2.3.11 **REMOTE PILOT LICENCE (RPL) -RESERVED**

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 recognized 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 Annexes, including Annexes 1, 6, and 8, until such time as the related RPAS SARPs are developed.

Note3: Notwithstanding the ICAO Assembly Resolution A37-15, Article 8 of the Chicago Convention assures each Contracting State of the absolute sovereignty over the authorization for RPA operation over its territory.

2.4 FLIGHT ENGINEER LICENCE, RATINGS, INSTRUCTORS AND DESIGNATED FLIGHT ENGINEER EXAMINERS

2.4.1 APPLICABILITY

(a) This section prescribes the requirements for the issue, renewal and re-issue of a flight engineers license and ratings and for designated flight engineer examiners.

2.4.2 GENERAL RULE CONCERNING FLIGHT ENGINEER LICENCES AND RATINGS

(a) A person shall not act as a flight engineer of an aircraft registered in Liberia unless a valid license or a validation certificate is held showing compliance with the specifications of this Part 2 and appropriate to the duties to be performed by that person.

(b) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the license holder by the Authority in place of issuing the class or type rating in accordance with this Part. This authorization will be limited in validity to the time needed to complete the specific flight.

(c) An applicant shall, before being issued with a flight engineer license and class rating, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that license or rating.

(d) An applicant for renewal or re-issue of an FE license and class rating shall meet the requirements as are specified for the license and rating in this Part.

2.4.3 AUTHORITY TO ACT AS A FLIGHT CREWMEMBER

(a) A person shall not act as a flight crewmember of an aircraft registered in Liberia unless a valid license or validation certificate is held showing compliance with the specifications of Part 2 and appropriate to the duties to be performed by that person.

(b) No person may act as a FE of an aircraft unless that person holds the appropriate FE license and class rating for the aircraft to be flown.

2.4.4 FLIGHT ENGINEER LICENCE, CLASS RATING, AND EXPERIENCE REQUIREMENTS

2.4.4.1 Flight Engineer License

(a) Age. The applicant for a flight engineer license and class rating shall be not less than 18 years of age.

(b) Medical. The applicant for a flight engineer license and class rating shall have a Class 2 medical certificate.

(c) Knowledge. The applicant for a flight engineer license and class rating shall receive and log ground training from an authorized instructor on the following subjects:

(1) Air law:

(i) Rules and regulations relevant to the holder of a flight engineer license; rules and regulations governing the operations of civil aircraft pertinent to the duties of a flight engineer.

(2) Aircraft general knowledge:

(i) Basic principles of powerplants, gas turbines and/or piston engines, characteristics of fuels, fuel systems including fuel control, lubricants and lubrication systems, afterburners and injection systems, function and operation of engine ignition and starter systems.

(ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants, effects of atmospheric conditions on engine performance.

(iii) Airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue life and identification of structural damage and defects.

(iv) Ice and rain protection systems.

(v) Pressurization and air-conditioning systems, oxygen systems.

(vi) Hydraulic and pneumatic systems.

(vii) Basic electrical theory, electric systems (AC and DC), aircraft wiring systems, bonding and screening.

(viii) Principles of operation of instruments, compasses, autopilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics.

(ix) Limitations of appropriate aircraft.

(x) Fire protection, detection suppression and extinguishing systems.

(xi) Use and serviceability checks of equipment and systems of appropriate aircraft.

(3) Flight performance and planning:

(i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations; and

(ii) Use and practical application of performance data including procedures for cruise control.

(4) Human performance:

(i) Human performance and CRM relevant to the flight engineer, including principles of threat and error management.

Note: Guidance material to design training programs on human performance can be found in ICAO Doc 9683, The Human Factors Training Manual.

(5) Operational procedures:

(i) Principles of maintenance procedures for the maintenance of airworthiness, defect reporting, pre-flight inspections, precautionary procedures for fuelling and use of external power; installed equipment and cabin systems.

(ii) Normal, abnormal and emergency procedures.

(iii) Operational procedures for carriage of freight and dangerous goods.

(6) Principles of flight:

(i) Fundamentals of aerodynamics.

(7) Radiotelephony:

(i) Radiotelephony procedures and phraseology.

(8) Navigation:

(i) Fundamentals of navigation.

(ii) Principles and operation of self-contained systems.

(9) Meteorology:

(i) Operational aspects of meteorology.

(d) Knowledge testing. The applicant for a FE shall:

(1) Have received an endorsement for the knowledge test from an authorized 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 knowledge test.

(e) Experience.

(1) The applicant for a flight engineer license and class rating shall have completed under the supervision of a person accepted by the Authority for that purpose, not less than 100 hours of flight time in the performance of the duties of a flight engineer, of which 50 hours may have been completed in a flight simulation training device approved by the Authority. This experience shall have been obtained:

(i) On an aeroplane for which a flight engineer is required; and

(ii) On an aeroplane that has at least three engines that are rated at least 800 horsepower each or the equivalent in turbine engine powered aircraft.

(2) The holder of a CPL/IR (A) or ATPL (A) may be credited with 30 hours towards the 100 hours of flight time.

(3) The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the Authority for that purpose, in at least the following areas:

(i) Normal procedures:

(A) Pre-flight inspections.

(B) Fuelling procedures, fuel management.

(C) Inspection of maintenance documents.

(D) Normal flight deck procedures during all phases of flight.

(E) Crew coordination and procedures in case of crew incapacitation.

(F) Defect reporting.

(ii) Abnormal and alternate (standby) procedures:

(A) Recognition of abnormal functioning of aircraft systems

(B) Use of abnormal and alternate (standby) procedures.

(iii) Emergency procedures:

(A) Recognition of emergency conditions.

(B) Use of appropriate emergency procedures.

(f) Skill. The applicant for a flight engineer license and class rating shall:

(1) Have received an endorsement from an authorized instructor who certifies that the person is prepared for the required skill test; and

(2) Have demonstrated by passing the required skill test, the ability to perform as flight engineer of an aircraft, the duties and procedures described i(c) above with a degree of competency appropriate to the privileges granted to the holder of a flight engineer license, and to—

(i) Use aircraft systems within the aircraft's capabilities and limitations;

(ii) Exercise good judgment and airmanship;

(iii) Apply aeronautical knowledge;

(iv) Perform all the duties as part of an integrated crew with the successful outcome never in doubt; and

(v) Communicate effectively with the other flight crewmembers.

(2) Requirements for the skill test are given at IS 2.4.4.4.

(3) The use of a flight simulation training device for training or testing any of the required manoeuvres shall be appropriate to the task and approved by the Authority.

(g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight engineer license and class rating shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer license and class rating is five years.

(i) Renewal. The Flight Engineer License may be renewed by presenting to the Authority evidence of successfully passing a proficiency check on the areas of operation listed in IS: 2.4.4.4.

(j) Reissue. If the Flight Engineer License has expired, the applicant shall have received refresher training acceptable to the Authority and pass the skill test on the areas of operation contained in IS 2.4.4.4.

2.4.4.2 **Flight Engineer Class Ratings**

(a) The Authority may issue the following class ratings to be placed on a flight engineer's license when the applicant completes the requirements in this Part for the rating sought:

(1) Reciprocating engine powered;

(2) Turbo propeller powered; and

(3) Turbojet powered.

(b) Additional ratings. To be eligible for an additional class rating, an applicant shall:

(1) Successfully complete an approved flight engineer training course that is appropriate to the additional class rating sought;

(2) Pass the knowledge test that is appropriate to the class for which an additional rating is sought; and

(3) Pass the skill test that is appropriate to the class for which an additional rating is sought.

2.4.4.3 **Recent Experience Requirements**

(a) No person holding a flight engineer license and class rating shall exercise the privileges of the flight engineer license unless he/she has completed within the past 6 calendar months—

(1) At least 50 hours of flight time as a flight engineer, or

(2) Completed a proficiency check.

2.4.4.4 **Flight Engineer: Skill Test and Proficiency Check**

(a) The requirements for the skill test and proficiency check for the flight engineer licenses are included in IS 2.4.4.4.

2.4.5 **INSTRUCTORS FOR FLIGHT ENGINEER LICENCES**

2.4.5.1 **Requirements for Flight Engineer Instructor License and Class Rating**

(a) Age. An applicant for a flight engineer instructor license and class rating shall be at least 18 years of age.

(b) Medical. An applicant for a flight engineer instructor license shall hold a Class 2 medical certificate.

(c) Knowledge.

(1) An applicant for a flight engineer instructor license shall have met the instructor requirements in 2.2.6 of this part; and

(2) Any additional requirements as may be specified by the Authority.

(d) Experience. The applicant for a flight engineer instructor license and class rating shall hold at least a current and valid flight engineer license and class rating for which the instructor license is sought and have a minimum of 1,500 hours flight time as a flight engineer.

(e) Flight instruction. Received flight instruction from an authorized instructor in the areas of:

(1) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and

(2) Have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

(f) Privileges. The privileges of a flight engineer instructor license and class rating are to give flight and ground instruction to flight engineer license applicants and to endorse those applicants for a knowledge or skill test as applicable.

(g) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer instructor license is 2 years.

(h) Renewal. A flight engineer instructor license that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date—

(1) Received refresher training acceptable to the Authority; or

(2) Conducted at least one of the following parts of an approved course for a flight engineer license or class rating:

(3) One simulator session of at least 3 hours; or

(4) One flight exercise of at least 1 hour including at least 2 take-offs and landings.

(i) Reissue. If the flight engineer instructor license has expired, the applicant shall:

(1) Have received refresher training acceptable to the Authority; and

(2) Pass a skill test on the areas of operation listed in IS 2.4.4.4.

2.4.5.2 **Instructor Authorization for Flight Simulation Training**

(a) Current or former holders of flight engineer licenses, having instructional experience may apply for an authorization to provide flight instruction in a flight simulation training device, provide the applicant has at least 1 year experience as instructor in flight simulation training devices.

(1) Skill. The applicant shall have demonstrated in a skill test, in the category and in the class or type of aircraft for which instructor authorization 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 this Part, the privileges of the holder of an authorization are to carry out instruction in a flight simulation training device 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 this Part, the validity period of an instructor authorization for flight simulation training is 1 year.

(4) Renewal. Renewal of the authorization requires the successful completion of a proficiency check.

(5) Reissue. If the authorization has expired, the applicant must complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorization privileges are sought.

2.4.6 DESIGNATED FLIGHT ENGINEER EXAMINERS

2.4.6.1 Requirements

(a) Age. An applicant for a designated flight engineer examiner shall be at least 21 years of age.

(b) Medical. An applicant for a designated flight engineer examiner shall hold a Class 2 medical certificate.

(c) Eligibility. An applicant for a designated flight engineer examiner shall:

(1) Hold at least the flight engineer license and class rating for which examining authority is sought.

(2) Have a minimum of 1,500 hours flight time as a flight engineer.

(3) Have held a flight engineer instructor license or company flight engineer check airman authorization for preferably at least 1 year.

(4) Have a reputation for integrity and dependability in the industry and the community.

(5) Have a good record as a flight engineer in regard to accidents, incidents, and violations.

(6) Have flight engineer license/class ratings and flight engineer instructor license or check airman authorization that has never been revoked for falsification or forgery.

(d) Knowledge. The applicant for a designated flight engineer examiner shall pass a pre-designation knowledge test in the areas appropriate to the license/class rating for which designation is sought.

(e) Skill test. The applicant for a designated flight engineer examiner shall pass a skill test on the items in IS 2.4.6.2 conducted by an inspector of the Authority who holds a current and valid flight engineer license with appropriate class rating.

(f) Maintaining currency. After designation, a designated flight engineer examiner shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority; and

(2) Maintain a current and valid:

(i) Flight engineer license and applicable class rating; and

(ii) Class 1 medical certificate.

(g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the flight engineer examiner's designation are to conduct skill tests and proficiency checks for a flight engineer license and applicable class rating as listed on the designated flight examiner's certificate of designation and identification card.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the designated flight engineer 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 IS 2.4.6.2.

(j) Additional designations. When the Authority deems it necessary for a designated flight engineer examiner to receive additional class rating designations, the designated flight engineer examiner shall meet all the requirements in this Part for the designation.

2.4.6.2 **Skill Test for Designated Flight Engineer Examiners**

(a) The requirements for the skill test for designated flight engineer examiners is included in IS 2.4.6.2

2.5 FLIGHT NAVIGATOR LICENCE

2.5.1 **FLIGHT NAVIGATOR LICENCE, INSTRUCTORS AND DESIGNATED EXAMINERS**

2.5.1.1 **Applicability**

(a) This section prescribes the requirements for the issue, renewal and re-issue of a flight navigator license.

2.5.2 **GENERAL RULE CONCERNING FLIGHT NAVIGATOR LICENCES**

(a) A person shall not act as a flight navigator of an aircraft registered in Liberia unless a valid license is held showing compliance with the specifications of the Part 2 and appropriate to the duties to be performed by that person.

(b) An applicant shall, before being issued with a flight navigator license, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that license.

(c) An applicant shall for renewal or re-issue of a flight navigator license, meet the requirements as are specified for that license in this Part.

2.5.3 **AUTHORITY TO ACT AS A FLIGHT CREWMEMBER**

(a) A person shall not act as a flight crewmember of an aircraft registered in Liberia unless a valid license is held showing compliance with the specifications of Part 2 and appropriate to the duties to be performed by that person.

(b) No person may act as the flight navigator of an aircraft unless that person holds the appropriate flight navigator license.

2.5.4 **FLIGHT NAVIGATOR LICENCE**

2.5.4.1 **General Requirements**

(a) Age. The applicant for a flight navigator license shall be not less than 18 years of age.

(b) Medical: The applicant for a flight navigator license shall have a Class 2 medical certificate.

(c) Knowledge. The applicant for a flight navigator license shall receive and log ground training from an authorized instructor on the following subjects to the level of knowledge appropriate for the privileges of a flight navigator:

(1) Air Law:

(i) Rules and regulations relevant to the holder of a flight navigator license; appropriate air traffic services practices and procedures.

(2) Flight performance and planning:

(i) Effects of loading and mass distribution on aircraft performance;

(ii) Use of take-off, landing and other performance data including procedures for cruise control; and

(iii) Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures.

(3) Human performance:

(i) Human performance relevant to the flight navigator, including principles of threat and error management.

Note: Guidance material to design training programs on human performance, including threat and error management, can be found in ICAO Doc 9683, Human Factors Training Manual.

(4) Meteorology:

(i) Interpretation and practical 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; and

(ii) Aeronautical meteorology; climatology of relevant areas in respect of 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.

(5) Navigation.

(i) Dead-reckoning, pressure-pattern and celestial navigation procedures; 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 navigation of the aircraft;

(iii) Use, accuracy and reliability of navigation systems used in departure, en-route and approach phases of flight; identification of radio navigation aids;

(iv) Principles, characteristics and use of self-contained and external-referenced navigation systems; operation of airborne equipment;

(v) The celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights; calibration of sextants; the completion of navigation documentation; and

(vi) Definitions, units and formulae used in air navigation.

(6) Operational procedures:

(i) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach.

(7) Principles of flight: principles of flight.

(8) Radiotelephony: radiotelephony procedures and phraseology.

(d) Knowledge testing.

(1) An applicant for a flight navigator license shall have received an endorsement for the knowledge test from an authorized instructor who:

(i) Conducted the training on the knowledge subjects.

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required knowledge test on the subjects listed in item (c).

(e) Experience. The applicant for a flight navigator license:

(1) Shall present satisfactory evidence, such as a logbook, of the following experience:

(i) The applicant shall have completed in the performance of the duties of a flight navigator, not less than 200 hours of flight time acceptable to the Authority, in aircraft engaged in cross-country flights, using celestial and radio navigation and dead reckoning, including not less than 30 hours by night; and

(ii) The applicant shall produce evidence of having satisfactorily determined the aircraft's position in flight, and used that information to navigate the aircraft, as follows:

(A) By night – not less than 25 times by celestial observations; and

(B) By day – not less than 25 times by celestial observations in conjunction with self-contained or external-referenced navigation systems.

(2) May be credited with 30 hours of flight time as the holder of a pilot license towards the 200 hours of flight time required in paragraph (e)(1).

(f) Skill. The applicant shall have demonstrated by passing the required skill test on the items in IS 2.5.4.2 the ability to perform as flight navigator of an aircraft with a degree of competency appropriate to the privileges granted to the holder of a flight navigator license, and to:

(1) Recognize and manage threats and errors;

(2) Exercise good judgment and airmanship;

(3) Apply aeronautical knowledge;

(4) Perform all duties as part of an integrated crew; and

(5) Communicate effectively with the other flight crewmembers.

(g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight navigator license shall be to act as flight navigator of any aircraft.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the license is five years.

(i) Recent experience requirements. No person holding a flight navigator license shall exercise the privileges of the flight navigator license unless he/she has completed within the past 6 calendar months –

(1) At least 30 hours of flight time as a flight navigator, or

(2) Completed a proficiency check.

(j) Renewal of the flight navigator license. For renewal of the license, the applicant shall pass a proficiency check on the areas of operation in IS 2.5.4.2

(k) Reissue. If the Flight Navigator License has expired, the applicant shall have received refresher training acceptable to the Authority, and pass a skill test on the areas of operation contained in IS 2.5.4.2.

2.5.4.2 Flight Navigator License: Skill Test and Proficiency Check

(a) The areas of operation for the skill test and proficiency check, are included in IS 2.5.4.2.

2.5.5 INSTRUCTOR REQUIREMENTS FOR FLIGHT NAVIGATORS

2.5.5.1 Requirements for Flight Navigator Instructor License

(a) Age. An applicant for a flight navigator instructor license shall be at least 18 years of age.

(b) Medical. An applicant for a flight navigator instructor license shall hold a Class 2 medical certificate.

(c) Knowledge.

(1) An applicant for a flight navigator instructor license shall have met the instructor knowledge requirements in 2.2.6 of this part; and

(2) Meet any additional requirements as may be specified by the Authority.

(d) Experience. The applicant for a flight navigator instructor license shall hold at least a current and valid flight navigator license for which the instructor license is sought and have a minimum of 1,500 hours flight time as a flight navigator.

(e) Flight instruction. Received flight instruction from an authorized instructor in the areas of:

(1) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and

(2) Have practiced instructional techniques in those procedures in which it is intended to provide flight instruction.

(f) Privileges. The privileges of a flight navigator instructor license are to give flight and ground instruction to flight navigator license applicants and to endorse those applicants for a knowledge or skill test as applicable.

(g) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight navigator instructor license is 2 years.

(h) Renewal. A flight navigator instructor license that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date —

(1) Conducted at least two flight exercises in an approved course for a flight navigator license or class rating in which the aircraft position was determined by use of celestial, ground based and electronic navigational systems; or

(2) Received refresher training acceptable to the Authority.

(i) Reissue. If the flight navigation instructor license has expired, the applicant shall:

(1) Have received refresher training acceptable to the Authority; and

(2) Passed a skill test on the areas of operation listed in IS: 2.5.4.2.

2.5.6 DESIGNATED FLIGHT NAVIGATOR EXAMINERS

2.5.6.1 Requirements

(a) Age: An applicant for a designated flight navigator examiner shall be at least 21 years of age.

(b) Medical. An applicant for a designated flight navigator examiner shall hold a Class 1 medical certificate.

(c) Eligibility. An applicant for a designated flight navigator examiner shall:

(1) Hold the flight navigator license for which examining authority is sought;

(2) Have a reputation for integrity and dependability in the industry and the community;

(3) Have a good record as a flight navigator in regard to accidents, incidents, and violations; and

(4) Have a flight navigator license that has never been revoked for falsification or forgery.

(d) Knowledge. The applicant for a designated flight navigator examiner shall pass a pre-designation knowledge test in the areas appropriate to the license rating for which designation is sought.

(e) Skill test. The applicant for a designated flight navigator examiner shall pass a skill test on the areas of operation listed in IS 2.5.6.2 conducted by an inspector of the Authority who holds a current and valid flight navigator license.

(f) Maintaining currency. After designation, a designated flight navigator examiner shall maintain currency by:

(1) Attending initial and recurrent training provided by the Authority; and

(2) Maintain a current and valid:

(i) Flight navigator license; and

(ii) Class 2 medical certificate.

(g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the flight navigator examiner's designation are to conduct skill tests and proficiency checks for a flight navigator license as listed on the designated flight navigator examiner's certificate of designation and identification card.

(h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the designated flight navigator 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 IS 2.5.6.2.

2.5.6.2 **Skill Test for Designated Flight Navigator Examiner**

(a) The requirement for a skill test for designated flight navigator examiners are included in IS 2.5.6.2.

2.6 AVIATION MAINTENANCE LICENSING, INSTRUCTORS AND DESIGNATED EXAMINERS

2.6.1 GENERAL

2.6.1.1 Applicability

(a) Subpart 2.6 prescribes the requirements for issuing the following licenses and associated ratings and/or authorizations for:

(1) Aviation Maintenance Technicians

(2) Inspection Authorizations.

(3) Aviation Repairman.

(4) Aviation Maintenance Technician Instructors;

(5) Designated Mechanic Examiners.

2.6.2 AVIATION MAINTENANCE TECHNICIANS (AMT)

Note: The term "Aviation Maintenance Technician" is used in this section, but under ICAO Annex 1, 4.2, the terms "Aircraft Maintenance Engineer and "Aircraft Maintenance Mechanic" are accepted with equal validity. In addition, these Model Regulations use the term "Licensed Mechanic" where the maintenance function is performed by individuals not working for an Approved Maintenance Organization (AMO).

2.6.2.1 Applicability

(a) This Subpart prescribes the requirements for issuance of an AMT license and associated ratings.

2.6.2.2 Eligibility Requirements: General

(a) An applicant for an AMT license and any associated rating shall—

(1) Be at least 18 years of age.

(2) Demonstrate the ability to read, write, speak, and understand the [State] language, and English if required by the Authority, by reading and explaining appropriate maintenance publications and by writing defect and repair statements.

(3) Comply with the knowledge, experience, and competency requirements prescribed for the license and rating sought.

(4) Pass all of the prescribed tests for the license and rating sought, within a period of 24 months.

(b) A licensed AMT who applies for an additional rating must meet the requirements of 2.6.2.6 and, within a period of 24 months, pass the tests prescribed by 2.6.2.5 and 2.6.2.7 for the additional rating sought.

2.6.2.3 **Ratings**

(a) The following ratings are issued under this subpart:

(1) Airframe.

(2) Powerplant.

(3) Avionics.

(4) Other ratings as may be determined by the Authority.

2.6.2.4 **Knowledge Requirements for the AMT License**

(a) The applicant for an aviation maintenance technician/engineer/mechanic license shall have passed a general knowledge test covering at least the following areas:

(1) Air law and airworthiness requirements. Rules and regulations relevant to an aircraft maintenance technician license holder including —

(i) Applicable airworthiness requirements governing certification and continuing airworthiness of aircraft; and

(ii) Approved aircraft maintenance organization procedures.

(2) Natural science and aircraft general knowledge—

(i) Basic mathematics;

(ii) Units of measurement; and

(iii) Fundamental principles and theory of physics and chemistry applicable to aircraft maintenance.

(3) Aircraft engineering. Characteristics and applications of the materials of aircraft construction including—

(i) Principles of construction and functioning of aircraft structures,

(ii) Fastening techniques;

(iii) Powerplants and their associated systems;

(iv) Mechanical, fluid, electrical and electronic power sources;

(v) Aircraft instrument and display systems;

(vi) Aircraft control systems; and

(vii) Airborne navigation and communication systems.

(4) Aircraft maintenance. Tasks required to ensure the continuing airworthiness of an aircraft including—

(i) Methods and procedures for the overhaul, repair, inspection, replacement, modification or defect rectification of aircraft structures, components and systems in accordance with the methods prescribed in the relevant Maintenance Manuals and the applicable requirements of airworthiness.

(5) Human performance:

(i) Human performance, including principles of threat and error management, relevant to the duties of an aircraft maintenance license holder.

Note: Guidance material to design training programs on human performance including threat and error management, can be found in ICAO Doc 9683, Human Factors Training Manual.

2.6.2.5 **Knowledge Requirements for the Ratings**

(a) The applicant for an airframe rating shall pass a knowledge test covering at least the following areas:

(1) Wood structures.

(2) Aircraft covering.

(3) Aircraft finishes.

(4) Sheet metal and non-metallic structures.

(5) Welding.

(6) Assembly and rigging.

(7) Airframe inspection.

(8) Fuel systems.

(9) Aircraft landing gear systems.

(10) Hydraulic and pneumatic power systems.

(11) Cabin atmosphere control systems.

(12) Aircraft instrument systems.

(13) Communication and navigation systems.

(14) Aircraft fuel systems.

(15) Aircraft electrical systems.

(16) Position and warning systems.

(17) Ice and rain control systems.

(18) Fire protection systems.

(b) The applicant for a powerplant rating shall pass a knowledge test covering at least the following areas:

(1) Reciprocating systems.

(2) Turbine engines.

(3) Engine inspection.

(4) Engine instrument systems.

(5) Engine fire protection systems.

(6) Engine electrical systems.

(7) Lubrication systems.

(8) Ignition and starting systems.

(9) Fuel metering.

(10) Engine fuel systems.

(11) Induction and engine airflow systems.

(12) Engine cooling systems.

(13) Engine exhaust and reverser systems.

(14) Propellers.

(15) Auxiliary power units.

(c) The applicant for an avionics rating shall pass a knowledge test covering at least the following areas:

(1) Aircraft electrical systems;

(2) Aircraft instrument systems;

(3) Automatic flight control systems;

(4) Aircraft radio and radio navigation systems,

(5) Aircraft navigation systems; and

(6) Aircraft systems/components – avionics.

(d) The applicant shall pass each section of the test before applying for the skill tests prescribed by 2.6.2.7.

2.6.2.6 **Experience Requirements**

(a) An applicant for an AMT license and associated ratings may qualify by either practical experience or through completion of approved training in an ATO.

(b) Practical experience. Each applicant for an AMT license and rating(s) relying on practical experience shall provide documentary evidence, acceptable to the Authority, of the following experience in the inspection, servicing and maintenance of aircraft or its components—

(1) Airframe rating – 30 months.

(2) Powerplant rating – 30 months.

(3) Airframe and Powerplant ratings – 48 months.

(4) Avionics rating – 36 months.

(5) Airframe, Powerplant and Avionics ratings – 60 months.

(c) Approved training. Each applicant for an AMT license relying on completion of training in an Approved Training Organisation shall provide documentary evidence, acceptable to the Authority, of the following training:

(1) Airframe rating – 24 months.

(2) Powerplant rating – 24 months.

(3) Airframe and Powerplant ratings – 30 months.

(4) Avionics rating– 18 months in an ATO and 12 months practical work experience.

(5) Airframe, Powerplant and Avionics ratings – 42 months in an ATO and 12 months practical work experience.

Note: Regarding the avionics rating – Transport Canada requires 48 months for the avionics (electronic) rating. The JAA requirements are five years' experience for the avionics rating. The training recommendations are that a full mechanic license, including requirements applicable to airframe and powerplant ratings, will be complied with prior to obtaining the avionics rating.

2.6.2.7 **Skill Requirements**

(a) Each applicant for an AMT license or rating must pass a skill test on the license or rating that he/she seeks. The tests cover the applicant's basic skill in performing practical projects on the subjects covered by the knowledge test for the license or rating, and shall contain at least the subjects in the Implementing Standard 2.6.2.7 appropriate to the license or rating sought.

2.6.2.8 **Privileges and Limitations**

(a) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AMT may perform or supervise the maintenance, preventive maintenance , or modification of, or after inspection, approve for return to service, any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof, for which he or she is rated, provided the licensed AMT has—

(1) Satisfactorily performed the work at an earlier date;

(2) Demonstrated the ability to perform the work to the satisfaction of the Authority;

(3) Received training acceptable to the Authority on the tasks to be performed; or

(4) Performed the work while working under the direct supervision of a licensed AMT or a licensed aviation repairman who is appropriately rated and has—

(i) Had previous experience in the specific operation concerned; or

(ii) Received training acceptable to the Authority on the task to be performed.

(b) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AMT with an airframe rating may after he/she has performed the 100-hour inspection required by Part 8 of this chapter on an airframe, or any related part or appliance, and approve and return it to service.

(c) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AMT with a powerplant rating may perform the 100-hour inspection required by Part 8 of this chapter on a powerplant or propeller or any related part or appliance, and approve and return it to service.

(d) Except as specified in paragraph (e) of the subsection, a licensed AMT with an Avionics rating may inspect, repair, maintain, function test and return to service aircraft avionics systems and components.

(e) An AMT with an airframe or powerplant or avionics rating may not—

(1) Supervise the maintenance, preventive maintenance, or modification of, or approve and return to service, any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof, for which he/she is rated unless he/she has satisfactorily performed the work concerned at an earlier date.

(2) Exercise the privileges of the license unless the licensed AMT understands the current instructions for continued airworthiness and the maintenance instructions for the specific operation concerned.

(3) Perform a major repair or major modification of a propeller.

(f) An AMT with an Airframe or Powerplant rating may not:

(1) Perform or supervise (unless under the direct supervision and control of an AOC holder that is authorized to perform maintenance, preventative maintenance, or modifications under an equivalent system in accordance with 9.4.3(a)) any repair or alteration of instruments.

(2) Approve for return to service—

(i) Any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof after completion of a major alteration or major repair; or

(ii) Any instrument after completion of any repair or alteration.

2.6.2.9 **Duration of AMT License**

(a) Validity. The duration of the AMT license is five years.

(b) Renewal. An AMT license that has not expired may be renewed for an additional five years if the holder presents evidence to the Authority that he/she has within the past 24 months has exercised the privileges of the license.

(c) Reissue. If the AMT license has expired, the applicant shall have received refresher training acceptable to the Authority, and passed a skill test on the areas of operation contained in IS 2.6.2.7 for the AMT General, and any associated ratings.

2.6.2.10 **Recent Experience Requirements**

(a) A licensed AMT may not exercise the privileges of his/her license or rating unless, within the preceding 24 months—

(1) The Authority has found that he/she is able to do that work; or

(2) For at least 6 months within the preceding 24 months—

(i) Served as an AMT under his/her license and rating;

(ii) Technically supervised other AMTs;

(iii) Provided aviation maintenance instruction or served as the direct supervisor of persons providing aviation maintenance instruction for an AMT course or program acceptable to the Authority;

(iv) Supervised the maintenance, preventive maintenance, or alteration of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof; or

(v) Been engaged in any combination of paragraphs (a) (1) (i) through (a) (1) (iv) of this subsection.

2.6.2.11 **Display of License**

(a) Each person who holds an AMT license shall keep it within the immediate area where he/she normally exercises the privileges of the license and shall present it for inspection upon the request of the Authority or an authorized representative of the Director General, or any Federal, State, or local law enforcement officer.

2.6.3 **INSPECTION AUTHORISATIONS**

Note: While the Inspection Authorization is not specifically in ICAO Annex 1, it does exceed the previous ICAO Annex 1 standards for a Type I AMT which typically performed maintenance on small aircraft. See ICAO Doc 7192, D-1, Appendix 3 to Chapter 1.

2.6.3.1 **Applicability**

(a) This Subpart prescribes the requirements for issuance of inspection authorizations, and the conditions under which these authorizations are necessary.

2.6.3.2 **Eligibility Requirements: General**

(a) An applicant for an Inspection Authorization shall:

(1) Hold a currently effective and valid AMT license with both an airframe and powerplant rating, each of which is currently effective and has been in effect for a total of at least five years.

(2) Have been actively engaged, for at least the 2-year period before the date of application, in the maintenance of certificated aircraft and maintained in accordance with these regulations.

(3) Have a fixed base of operations at which the applicant may be located in person or by telephone during a normal working week but which need not be the place where the applicant will exercise inspection authority.

(4) Have available the equipment, facilities, and inspection data necessary to properly inspect airframes, aircraft engines, propellers, or any related component, part, or appliance.

(5) Pass a knowledge test that demonstrates the applicant's ability to inspect according to safety standards for approving aircraft for return to service after major and minor repairs, major and minor modifications, annual inspections, and progressive inspections, which are performed under Part 5.

(b) An applicant who fails the knowledge test prescribed in paragraph (a)(5) of this section may not apply for retesting until at least 90 days after the date he/she failed the test.

2.6.3.3 **Knowledge Requirements for the IA**

(a) The applicant for the IA shall pass a knowledge test covering at least the following areas:

(1) Certification procedures for products and parts.

(2) Airworthiness standards – aircraft.

(3) Airworthiness standards – rotorcraft.

(4) Airworthiness directives.

(5) Maintenance, preventive maintenance, rebuilding, and alteration.

(6) Identification and registration marking.

(7) Certification – Maintenance licensing.

(8) General operating and flight rules.

(9) Aircraft weight and balance.

2.6.3.4 **Inspection Authorization: Duration**

(a) Each inspection authorization expires on June 31 of each year.

(b) An inspection authorization ceases to be effective whenever any of the following occurs:

(1) The authorization is surrendered, suspended, or revoked.

(2) The holder no longer has a fixed base of operation.

(3) The holder no longer has the equipment, facilities, and inspection data required by 2.6.3.2(a) (3) and (4) for issuance of his/her authorization.

(c) The holder of an inspection authorization that is suspended or revoked shall return it to the Authority.

2.6.3.5 **Renewal of Authorization**

(a) To be eligible for renewal of an Inspection Authorization for a 1-year period, an applicant shall, within 14 days prior to the expiration of the authorization, present evidence to the Authority that the applicant still meets the requirements of 2.6.3.2 and show that, during the current period of authorization, the applicant has—

(1) Performed at least one annual inspection during each 3 month period the applicant held the authorization;

(2) Performed inspections of at least two major repairs or major modifications for each 3 month period the applicant held the authorization;

(3) Performed or supervised and approved at least one progressive inspection in accordance with standards prescribed by the Authority for each 12 month period the applicant held the authorization;

(4) Performed any combination of paragraphs (a)(1) through (a)(3);

(5) Successfully completed an Inspection Authorization refresher course or series of courses acceptable to the Authority, of not less than 16 hours of instruction during the12-month period preceding the application for renewal; or

(6) Passed a knowledge test administered by the Authority to determine that the applicant's knowledge of applicable regulations and standards is current.

(b) The holder of an inspection authorization that has been in effect for less than 3 months before the expiration date need not comply with paragraph (a)(1) through (5) of this section.

2.6.3.6 **Privileges and Limitations**

(a) When exercising the privileges of an IA, the holder shall keep it available for inspection by the aircraft owner and the AMT submitting the aircraft, repair, or alteration for approval (if any), and shall present it at the request of the Authority or an authorized representative of the Director General, or at the request of any Federal, State, or local law enforcement officer.

(b) The holder of an Inspection Authorization (IA) with a current and valid AMT license may:

(1) Inspect and approve for return to service any aircraft, airframe, aircraft engine, propeller appliance, component, or part thereof on any aircraft with a 5,700 kg maximum take-off weight or less, after completion of a major repair or major alteration performed in accordance with Part 5 and done in accordance with technical data approved by the Authority.

(2) Perform an annual inspection, or perform or supervise a progressive inspection, according to Part 5, on any aircraft with a 5,700 kg maximum take-off weight or less, except those aircraft on a continuous maintenance program, and approve the aircraft for return to service.

(c) The holder of an IA with a current and valid AMT license may not:

(1) Exercise the privileges of the authorization unless he or she holds a current and valid AMT license with airframe and powerplant ratings.

(2) Inspect and approve for return to service any aircraft over 5,700 kg maximum take-off weight.

(3) Inspect and approve any airframe, aircraft engine, propeller, appliance, component, or part thereof, which is subject to a maintenance program under Part 9.

(4) Inspect and approve for return to service any aircraft maintained in accordance with a continuous maintenance program approved under Part 9.

(5) Exercise any privilege of an Inspection Authorization whenever that person no longer—

(i) Has a fixed base of operation; and

(ii) Has access to the equipment, facilities, or inspection data required by 2.6.3.2(a) (3) and (4).

(6) Exercise the privileges of the authorization until he or she has notified the Authority in writing of any changes in the fixed base of operation and equipment, facilities or inspection data and received approval in writing from the Authority for the proposed change.

2.6.4 **AVIATION REPAIRMAN (AR)**

Note: This license is not specified in ICAO Annex 1. Regulations contained in the subpart are based on 14 CFR Part 65 and are present here for States that wish to maintain closer supervision on individuals performing work in an Approved Maintenance Organization.

2.6.4.1 **Applicability**

(a) This Subpart prescribes the requirements for issuance of Aviation Repairman (AR) licenses and ratings, and the conditions under which those licenses and ratings are necessary.

(b) The AR license shall only be issued to eligible employees who perform specialized tasks of either –

(1) An AMO, or

(2) An AOC holder authorized to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with 9.4.3(a).

2.6.4.2 **Aviation Repairman License: Eligibility**

(a) An applicant for an aviation repairman license and shall—

(1) Be at least 18 years of age.

(2) Demonstrate the ability to read, write, speak, and understand the Liberia language, and English if required by the Authority, by reading and explaining appropriate maintenance publications and by writing defect and repair statements.

(3) Demonstrate a level of knowledge relevant to the privileges to be granted and appropriate to the duties to be performed.

(4) By specially qualified to perform maintenance on aircraft or components thereof, appropriate to the job for which he/she was employed.

(5) Be employed for a specific job requiring those special qualifications by an approved maintenance organization certificated under Part 6 or an air operator certificated under Part 9 that is required by its operating certificate or approved specific operating provisions to provide maintenance, preventive maintenance, or modifications to aircraft approved with a continuous maintenance program according to its maintenance control manual.

(6) Be recommended for certification by his employer, to the satisfaction of the Authority, as able to satisfactorily maintain aircraft or components, appropriate to the job for which he is employed.

(7) Have either of the following:

(i) At least 24 months of practical experience in the procedures, practices, inspection methods, materials, tools, machine tools, and equipment generally used in the maintenance duties of the specific job for which the person is to be employed and certificated; or

(ii) Completed formal training that is acceptable to the Authority and is specifically designed to qualify the applicant for the job on which the applicant is to be employed.

2.6.4.3 **Ratings**

(a) The following ratings may be issued under this subpart:

(1) Propeller.

(2) Computer.

(3) Instrument.

(4) Accessory.

(5) Components.

(6) Welding.

(7) Nondestructive Testing (NDT).

(8) Other as may be designated by the Authority.

(b) At no instance shall an aviation repairman license be issued with an airframe and/or powerplant or avionics rating to circumvent the process of obtaining an AMT license.

(c) Ratings for an applicant employed by an AMO or AOC holder shall coincide with the rating(s) issued at the AMO or approved for the AOC holder limited to the specific job for which the person is employed to perform, supervise, or approve for return to service.

(d) At no instance shall an aviation repairman license be issued a rating for which the AMO has not been issued, nor the AOC holder approved to perform.

(e) Ratings for an applicant employed by an air operator shall coincide with the approved specific operating provisions and the approved maintenance control manual that identifies the air operator's authorizations limited to the specific job for which the person is employed to perform, supervise, or approve for return to service.

Note: When employed by an air operator with the authorization to perform and approve for return to service maintenance under an equivalent system in Part 9, an aviation repairman license should correspond to the specialty shop or group in which they perform, supervise, or approve for return to service an aeronautical product or aircraft. For example, Hydraulic component overhaul, landing gear overhaul, special inspections, non-destructive testing, turbine disc overhaul, etc.

2.6.4.4 **Aviation Repairman Licenses: Privileges and Limitations**

(a) An aviation repairman may perform or supervise the maintenance, preventive maintenance, or alteration of aircraft, airframes, aircraft engines, propellers, appliances, components, and parts appropriate to the designated specialty area for which the aviation repair specialist is licensed and rated, but only in connection with employment by an AMO approved under Part 6 or an AOC holder that is authorized to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with 9.4.3(a).

(b) An aviation repairman may not perform or supervise duties unless the aviation repairman understands the current instructions of the employing certificate holder and the instructions for continued airworthiness, which relate to the specific operations concerned.

2.6.4.5 **Display of License**

(a) Each person who holds an aviation repairman license shall keep it within the immediate area where he/she normally exercises the privileges of the license and shall present it for inspection upon the request of the Authority or an authorized representative of the Director General, or any Federal, State, or local law enforcement officer.

2.6.4.6 **Duration of License**

(a) Validity.

(1) The duration of the aviation repairman license is five years provided the license holder is in the continual employ of the sponsoring AMO or an AOC in an aviation repairman position.

(2) An aviation repairman license must be surrendered to the Authority at the time the license holder leaves the employ of the AMO or AOC.

(b) Renewal. An aviation repairman license that has not expired may be renewed for an additional five years, subject to the continuation of employment, if the holder presents a recommendation for renewal from his/her employer, to the satisfaction of the Authority, as able to satisfactorily maintain aircraft or components, appropriate to the job for which he/she is employed.

2.6.5 **INSTRUCTORS FOR AVIATION MECHANIC TECHNICIAN LICENCES**

2.6.5.1 **Requirements for Aviation mechanic Technician Instructor License and Rating**

(a) Age. An applicant for aviation mechanic technician instructor license and rating shall be at least 21 years of age.

(b) Knowledge.

(1) An applicant for an aviation mechanic technician instructor license shall have met the instructor requirements in 2.2.6 of this part; and

(2) Any additional requirements as may be specified by the Authority.

(c) Experience. The applicant for an aviation mechanic technician instructor license and rating shall hold at least a current and valid AMT license and rating for which the instructor license is sought and have a minimum of three years' experience as an AMT.

(d) Privileges. The privileges of aviation mechanic technician instructor license are to give instruction to aviation mechanic license applicants and to endorse those applicants for a knowledge or skill test as applicable.

(e) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the aviation mechanic technician instructor license is 2 years.

(f) Renewal. An aviation mechanic technician instructor license that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date —

(1) Conducted at least six exercises in an approved course for an AMT license or rating; or

(2) Received refresher training acceptable to the Authority.

(g) Reissue. If the aviation mechanic technician instructor license has expired, the applicant shall have received refresher training acceptable to the Authority and passed a skill test on the areas of operation contained in IS 2.6.2.7 for the AMT General, and any associated ratings.

2.6.6 DESIGNATED MECHANIC EXAMINER (DME)

2.6.6.1 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 for five years with the ratings for which a designation is to be issued.

(3) Have been actively exercising the privileges of that AMT certificate in the previous three years.

(4) Have a good record as an AMT and a person engaged in the industry and community with a reputation for honesty and dependability.

(5) The applicant must have a fixed base of operations adequately equipped to support testing--

(i) in each subject area in a required section for the designation held, and

(ii) all of the core competencies elements identified in Objective 2 of each subject area in the STS for General, Airframe and Powerplant ratings.

(6) 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.

(7) The applicant must have an airworthy aircraft, other aircraft, aircraft subassemblies, operational mock-ups, and other aids that may be used for testing.

(8) The applicant must have tools, equipment, material, current publications and the necessary apparatus, recommended by the aircraft manufacturers or accepted in the aviation industry, required to complete project assignments

2.6.6.2 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 utilized.

(3) Best industry practices.

(4) Recent improvement in technology, testing and tooling.

2.6.6.3 Skill

(a) The applicant shall be observed conducting a complete, actual skill test using the approved STS in a satisfactory manner.

(b) The applicant shall be observed completing the required documentation required by the Authority in a satisfactory manner.

2.6.6.4 **Currency**

(a) After designation, DME shall maintain currency by

(1) Attending initial and recurrent training conducted by the Authority, and

(2) Maintaining a current and valid AMT license and applicable ratings.

(b) The DME shall conduct at least 6 skill tests during any 12 calendar month period in order for the designation to remain current.

(c) The DME shall be observed by the Authority in the conduct of skill test at least once each 12 calendar months.

2.6.6.5 **Privileges**

(a) The DME may conduct AMT skill tests for which he/she is designated in accordance with the STS standards.

2.6.6.6 **Validity**

(a) The DME designation shall be valid for three years.

2.6.6.7 **Renewal**

(a) The DME designation may be renewed by Authority if:

(1) The need for the designation remains valid.

(2) The performance of the DME has been satisfactory.

(3) The DME has attended the DME 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 re-issue of an air traffic controller license and ratings.

2.7.2 **GENERAL**

(a) An applicant shall, before being issued with an air traffic controllers license, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that license or rating.

(b) An applicant shall for renewal or re-issue of a license, rating or authorization meet the requirements as are specified for that license, rating or authorization

2.7.3 **AIR TRAFFIC CONTROLLER LICENCE AND RATINGS**

2.7.3.1 **Student Air Traffic Controller**

(a) Authority shall take the appropriate measures to ensure that student air traffic controllers do not constitute a hazard to air navigation.

(b) Medical fitness: Authority shall not permit a student air traffic controller to receive instruction in an operational environment unless that student air traffic controller holds a current Class 3 Medical Certificate.

2.7.3.2 **Air Traffic Controller License**

(a) Age. The applicant for an air traffic controller license shall be not less than 21 years of age.

(b) Medical. The applicant for an air traffic controller license shall hold a Class 3 medical certificate issued under this Part.

(c) Knowledge. The applicant for an air traffic controller license shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an air traffic controller license:

(1) Air law:

(i) Rules and regulations relevant to the air traffic controller.

(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, powerplants and systems; aircraft performances relevant to air traffic control operations.

(4) Human performance: including principles of threat and error management;

Note: Guidance material to design training programs 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.

(7) Operational procedures:

(i) Air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

(d) Knowledge testing. An applicant for an air traffic controller license shall:

(1) Have received an endorsement for the knowledge test from an authorized instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required knowledge test.

(e) Experience. The applicant shall have completed an approved training course and not less than three months' satisfactory service engaged in the actual control of air traffic under the supervision of an appropriately rated air traffic controller. The experience requirements specified for air traffic controller ratings in paragraph 2.7.3.2 will be credited as part of the experience specified in this paragraph.

(f) Validity. Subject to compliance with the requirement specified in this Part, the validity period of the license is five years.

2.7.3.3 **Air Traffic Controller Ratings**

(a) Air traffic controller ratings shall comprise the following categories:

(1) Aerodrome control rating.

(2) Approach control procedural rating.

(3) Approach control surveillance rating;

(4) Approach precision radar control rating.

(5) Area control procedural rating.

(6) Area surveillance control rating.

Note. The World Meteorological Organization has specified requirements for personnel making meteorological observations which apply to air traffic controllers providing such a service.

(b) Knowledge. The applicant for an air traffic controller rating shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an air traffic controller 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.

(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. The applicant shall meet the requirements specified in (2) in so far 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:

(i) Principles, use and limitations of applicable ATS surveillance systems and associated equipment; and

(ii) Procedures for the provision of ATS surveillance services, as appropriate, including procedures to ensure appropriate terrain clearance.

(c) Knowledge testing. An applicant for an air traffic controller rating shall:

(1) Have received an endorsement for the knowledge test from an authorized instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test; and

(1) Pass the required knowledge test.

(d) Experience. The applicant for an air traffic controller license shall have:

(1) Satisfactorily completed an approved training course.

(2) Provided, satisfactorily, under the supervision of an appropriately rated air traffic controller:

(i) Aerodrome control rating: an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought.

(ii) 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 three months, whichever is greater, at the unit for which the rating is sought.

(iii) 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.

(3) If the privileges of the approach control surveillance rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated approach radar controller.

(4) The experience specified under (2) (ii) shall have been completed within the 6-month period immediately preceding application.

(e) Skill. The applicant shall have demonstrated by passing the required skill test, at a level appropriate to the privileges being granted, the skill, judgment 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 the Procedures for Air Navigation Services – Training, ICAO Doc 9869, PANS-TRG, Chapter 3, Attachment C, in Part II, Chapter 2, of the Human Factors Training Manual, ICAO Doc 9683 and in Cir 314, Threat and Error Management in Air Traffic Control.

(f) Privileges and limitations.

(1) Subject to compliance with the requirements specified in this Part, the privileges of the holder of an air traffic controller license 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 license 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 license 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 license 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 (d) (2) (iii), the privileges shall include the provision of surveillance radar 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 license 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 license holder is rated.

(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 license holder is rated.

(2) Before exercising the privileges indicated in (d) (1), the license holder shall be familiar with all pertinent and current information.

(3) A holder of an air traffic controller license and ratings(s) shall not provide instruction in an operational environment unless the license holder has received proper authorization from the Authority.

(g) Validity of ratings. A rating shall become invalid when an air traffic controller 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.

2.8 FLIGHT OPERATIONS OFFICER LICENCE, INSTRUCTORS, AND DESIGNATED EXAMINERS

Note: The license can also be specified as Flight Dispatcher License.

2.8.1 APPLICABILITY

(a) This section prescribes the requirements for the issue, renewal and the re-issue of a flight operations officer license, instructors for flight operations officer licenses and designation of flight operations officer examiner.

2.8.2 GENERAL

(a) An applicant shall, before being issued with a flight operations officer license, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that license.

(b) An applicant shall for renewal or re-issue of a license meet the requirements as are specified for that license.

(c) An applicant shall demonstrate the ability to read, write, speak, and understand the language of Liberia, 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 a flight operations officer license shall be not less than 21 years of age.

(b) Knowledge. The applicant for a flight operations officer license shall receive and log training from an authorized instructor on following subjects appropriate to the privileges of the flight operations officer:

(1) Air Law:

(i) Rules and regulations relevant to the holder of a flight operations officer license; and

(ii) appropriate air traffic services practices and procedures.

(2) Aircraft general knowledge:

(i) Principles of operation of aeroplane powerplants, systems and instruments;

(ii) Operating limitations of aeroplanes and powerplants; and

(iii) Minimum equipment 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 airport selection procedures; en-route cruise control; extended range operation;

(iii) Preparation and filing of air traffic services flight plans; and

(iv) Basic principles of computer-assisted planning systems.

(4) Human performance:

(i) Human performance relevant to dispatch duties, including principles of threat and error management.

Note: Guidance material to design training programs on human performance, including threat and error management, can be found in ICAO Doc 9683, Human Factors Training Manual.

(5) Meteorology:

(i) Aeronautical meteorology; the moment 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;

(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.

(9) Radio communication:

(i) Procedures for communicating with aircraft and relevant ground stations.

(c) The applicant for the Fight Operations Officer license shall:

(1) Have received an endorsement for the knowledge test from an authorized instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required knowledge test.

(d) Experience.

(1) The applicant for a flight operations officer license shall have gained the following experience:

(i) A total of 2 years' service in any one or in any combination of the capacities specified in (A) to (C) inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least one year:

(A) A flight crewmember in air transportation; or

(B) A meteorologist in an organization dispatching aircraft in air transportation; or

(C) An air traffic controller; or a technical supervisor of flight operations officers or air transportation flight operations systems.

(ii) At least one year as an assistant in the dispatching of air transport.

(iii) Have satisfactorily completed a course of approved training.

(2) The applicant shall have served under the supervision of a flight operations officer 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 subjects listed in IS 2.8.3.2 to:

(1) Make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports; provide an operationally valid briefing on weather conditions prevailing in the general neighborhood of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates.

(2) Determine the optimum flight path for a given segment, and create accurate manual and/or computer generated flight plans.

(3) 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 a flight operations officer license.

(4) Recognize and manage threats and errors.

Note. Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services – Training, ICAO Doc 9869, PANS-TRG, Chapter 3, Attachment C, in Part II, Chapter 2, of the Human Factors Training Manual, ICAO Doc 9683.

(f) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a Flight Operations Officer License shall be to serve in that capacity with responsibility for each area for which the applicant meets the requirements in ICAO Annex 6, as contained in Parts 8 and 9 of these regulations.

(g) Validity. The validity period of the license is five years. A license shall become invalid when a flight operations officer has ceased to exercise the privileges of the license for a period of 6 months. A license shall remain invalid until the flight operations officer's ability to exercise the privileges of the license has been re-established.

(h) Renewal. The Flight Operations Officer License 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.

(i) Reissue. If the Flight Operations Officer License has expired, the applicant shall have received refresher training acceptable to the Authority, and passed 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 License**

(a) Implementing Standard (IS) 2.8.3.2 contains the list of operations included in the Flight Operations Officer License skill test.

2.8.4 **INSTRUCTORS FOR FLIGHT OPERATIONS OFFICERS**

2.8.4.1 **Requirements for Flight Operations Officer Instructor License**

(a) Age. An applicant for Flight Operations Officer instructor license and rating shall be at least 21 years of age.

(b) Knowledge.

(1) An applicant for a Flight Operations Officer instructor license shall have met the instructor requirements in 2.2.6 of this part; and

(2) Any additional requirements as may be specified by the Authority.

(c) Experience. The applicant for a Flight Operations Officer instructor license shall hold at least a current and valid Flight Operations Officer license and have a minimum of three years' experience as a Flight Operations Officer.

(d) Privileges. The privileges of a Flight Operations Officer instructor license are to give instruction to Flight Operations Officer license applicants and to endorse those applicants for a knowledge or skill test as applicable.

(e) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the Flight Operations Officer instructor license is 2 years.

(f) Renewal. A Flight Operations Officer instructor license that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date —

(1) Conducted at least six exercises in an approved course for a Flight Operations Officer license; or

(2) Received refresher training acceptable to the Authority.

(g) Reissue. If the Flight Operations Officer instructor license has expired, the applicant shall have received refresher training acceptable to the Authority.

2.8.5 **DESIGNATED EXAMINERS FOR FLIGHT OPERATION OFFICERS**

2.8.5.1 **General Requirements**

(a) Age. An applicant for a Flight Operations Officer Examiner shall be at least 23 years of age.

(b) General eligibility.

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for the Flight Operations Officer (FOO) certification.

(2) Have held a FOO license for at least five years prior to the designation.

(3) Have been actively exercising the privileges of the FOO license in commercial air transport in the previous three years.

(4) Have a good record as a FOO and a person engaged in the industry and community with a reputation for hones and dependability.

(5) Have satisfactorily completed the FOO examiner orientation program with the Authority.

(6) The applicant must 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.

(8) Recent changes in technology to include fly by wire aircraft systems, GPS navigation, required navigation performance (RNP) requirements, TCAS, ADS-B, as well and Enhanced Wind Shear Systems.

2.8.5.3 **Skill**

(a) The Authority shall observe the applicant conducting a complete actual FOO certification using the approved STS in a satisfactory manner.

(b) The applicant shall complete all required paper work for the certification as required by the Authority.

2.8.5.4 **Currency**

(a) After designation, a FOO examiner shall maintain currency by

(1) Attending initial and recurrent training conducted by the Authority, and

(2) Maintaining a current and valid FOO license.

(b) The FOO examiner shall conduct at least 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 each 12 calendar months.

2.8.5.5 **Privileges**

(a) The FOO examiner may conduct Skill test for the Flight Operation Officer license in accordance with approved STS standard.

(b) The FOO examiner may conduct or monitor any portion of a computerized knowledge test.

2.8.5.6 **Validity**

(a) The FOO examiner license shall be valid for three 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;

(2) The performance of the examiner has been satisfactory.

2.9 AERONAUTICAL STATION OPERATOR AND METEOROLOGICAL PERSONNEL

Note: This license is not intended for personnel providing Aerodrome Flight Information Service (AFIS). Guidance on the qualifications to be met by these personnel can be found in ICAO Circular 211, Aerodrome Flight Information Service.

2.9.1 **APPLICABILITY**

(a) This section prescribes the requirements for the issue, renewal or re-issue of an aeronautical station operator license.

2.9.2 **GENERAL**

(a) An applicant shall, before being issued with an aeronautical station operator license, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that license.

(b) An applicant shall for renewal or re-issue of a license, rating or authorization meet the requirements as are specified for that license.

2.9.3 **AERONAUTICAL STATION OPERATOR LICENCE**

(a) Age. The applicant for an aeronautical station operator license shall be not less than 18 years of age.

(b) Knowledge. The applicant for an aeronautical station operator license shall receive and log ground training from an authorized instructor on the following subjects appropriate to the privileges of an aeronautical station operator:

(1) General Knowledge. Air traffic services provided within Liberia

(2) Operational Procedures. Radiotelephony procedures; phraseology; telecommunication network.

(3) Rules and regulations. Rules and regulations applicable to the aeronautical station operator.

(4) Telecommunication equipment. Principles, use and limitations of telecommunication equipment in an aeronautical station.

(c) Knowledge testing. An applicant for an aeronautical station operator license shall—

(1) Have received an endorsement for the knowledge test from an authorized instructor who:

(i) Conducted the training on the knowledge areas; and

(ii) Certifies that the person is prepared for the required knowledge test.

(2) Pass the required knowledge test.

(d) Experience. The applicant for an aeronautical station operator license shall have:

(1) Satisfactorily completed an approved training course within the 12-month period immediately preceding application, and have served satisfactorily under a qualified aeronautical station operator for not less than 2 months; or

(2) Satisfactorily served under a qualified aeronautical station operator for not less than 6 months during the 12-month period immediately preceding application.

(e) Skill. The applicant for an aeronautical station operator license shall demonstrate, or have demonstrated, competency in:

(1) Operating the telecommunication equipment in use; and

(2) Transmitting and receiving radiotelephony messages with efficiency and accuracy.

(f) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an aeronautical station operator license shall be to act as an operator in an aeronautical station. Before exercising the privileges of the license, the holder shall be familiar with all pertinent and current information regarding the types of equipment and operating procedures used at that aeronautical station.

(g) Validity: The validity period of the license is five years. A license shall become invalid when an aeronautical station operator has ceased to exercise the privileges of the license for a period of 6 months. A license shall remain invalid until the aeronautical station operator's ability to exercise the privileges of the license has been re-established.

(h) Renewal. An aeronautical station operator license that has not expired may be renewed for an additional five years if the holder presents to the Authority evidence that he/she has within the past 6 months preceding the expiry date —

(1) Be actively engaged in the duties of an aeronautical station operator, or

(2) Received refresher training acceptable to the Authority.

(i) Reissue. If the Aeronautical Station Operator license has expired, the applicant shall have received refresher training acceptable to the Authority.

2.9.4 AERONAUTICAL METEOROLOGICAL PERSONNEL

(a) The requirements for training and qualifications for all aeronautical meteorological personnel are the responsibility of the World Meteorological Organization (WMO) in accordance with the Working Arrangements between the International Civil Aviation Organization and the WMO (Doc 7475). The requirements can be found in WMO Document 258 – Guidelines for the education and training of personnel in meteorology and operational hydrology – Vol. 1: Meteorology.

2.10 PARACHUTE RIGGER LICENCES, INSTRUCTORS AND DESIGNATED PARACHUTE RIGGER EXAMINERS

Note: ICAO Annex 1 does not address licenses for parachute riggers. The regulations in this subpart are based on 14 CFR Part 65 and are presented here for information for States that may be interested in developing licenses for parachute riggers.

2.10.1 APPLICABILITY

(a) This Subpart prescribes the requirements for issuance of a parachute rigger licenses and ratings, and the conditions under which those licenses and ratings are necessary.

2.10.1.1 Eligibility Requirements: General

(a) To be eligible for a parachute rigger license, a person shall—

(b) Be at least 18 years of age.

(c) Be able to read, speak, write, and understand the Liberia language, and English if required by the Authority.

(d) Comply with the sections of this subpart that apply to the license and type rating he or she seeks.

2.10.1.2 License Required

(a) No person may pack, maintain, or alter any personnel-carrying parachute intended for emergency use in connection with civil aircraft of Liberia unless he or she holds an appropriate current license and type rating issued under this Subpart and complies with this Subpart.

(b) Except as allowed by paragraph (c) of this subsection, no person may pack, maintain, or alter any main parachute of a dual parachute pack to be used for intentional jumping from a civil aircraft of Liberia unless he or she has an appropriate valid license issued under this Subpart.

(c) A person who does not hold a license may pack the main parachute of a dual parachute pack that is to be used by him or her for intentional jumping.

(d) Each person who holds a parachute rigger license shall present it for inspection upon the request of the Authority or an authorized representative of the Director General Office, or any Federal, State or local law enforcement officer.

(e) The following parachute rigger licenses are issued under this part:

(1) Senior parachute rigger.

(2) Master parachute rigger.

(f) Sections 2.10.1.8 through 2.10.1.11 do not apply to parachutes packed, maintained, or altered for the use of the armed forces.

2.10.1.3 Senior Parachute Rigger License—Experience, Knowledge, and Skill Requirements

(a) An applicant for a senior parachute rigger license shall—

(b) 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 parachute rigger holding a rating for that type or a person holding an appropriate military rating.

(c) Pass a knowledge test, with respect to a parachute applicable to at least one type parachute appropriate to the type rating sought, on—

(1) Construction, packing, and maintenance;

(2) The manufacturer's instructions; and

(3) The regulations of this Subpart.

(d) Pass skill test showing the ability to pack and maintain at least one type of parachute appropriate to the type rating sought. Requirements for the skill test are contained in IS 2.10.1.3.

2.10.1.4 **Master Parachute Rigger License—Experience, Knowledge, and Skill Requirements**

(e) An applicant for a master parachute rigger license shall meet the following requirements:

(1) Present evidence satisfactory to the Authority of at least 3 years of experience as a parachute rigger 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 parachute rigger; or

(ii) While under the supervision of a licensed and appropriately rated parachute rigger or a person holding appropriate military ratings.

(iii) An applicant may combine experience specified in paragraphs (a) (1) and (2) of this paragraph to meet the requirements of this subsection.

(2) If the applicant is not the holder of a senior parachute rigger license, 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 skill test showing the ability to pack and maintain two types of parachutes appropriate to the type ratings sought. Requirements for the skill test are contained in IS 2.10.1.4.

2.10.1.5 **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 IS 2.10.1.5.

(c) The holder of a senior parachute rigger license who qualifies for a master parachute rigger license is entitled to have placed on the senior parachute rigger license the ratings that were on the parachute rigger license.

2.10.1.6 **Additional Type Ratings: Requirements**

(a) A licensed parachute rigger 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 parachute rigger 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.

2.10.1.7 **Privileges**

(a) A licensed senior parachute rigger may—

(1) Pack or maintain (except for major repair) any type of parachute for which he or she is rated; and

(2) Supervise other persons in packing any type of parachute for which he or she is rated.

(b) A licensed master parachute rigger may—

(1) Pack, maintain, or alter any type of parachute for which he or she is rated; and

(2) Supervise other persons in packing, maintaining, or altering any type of parachute for which he or she is rated.

(c) A licensed parachute rigger need not comply with 2.10.1.8 through 2.10.1.11 (related to facilities, equipment, performance standards, records, recent experience, and seal) in packing, maintaining, or altering (if authorized) the main parachute of a dual parachute pack to be used for intentional jumping.

2.10.1.8 **Facilities and Equipment**

(a) No licensed parachute rigger shall exercise the privileges of his license unless he or she has at least the following facilities and equipment available—

(1) A smooth top table at least three feet wide by 40 feet 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.

2.10.1.9 **Performance Standards and Recency Requirements**

(a) No licensed parachute rigger may—

(1) Pack, maintain, or alter 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) Alter a parachute in a manner that is not specifically authorized by the Authority or the manufacturer;

(5) Pack, maintain, or alter 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 license and type rating unless he or she understands the current manufacturer's instructions for the operation involved and has—

(i) Performed duties under the license for at least 90 days within the preceding 12 months; or

(ii) Shown to the Authority the ability to perform those duties.

2.10.1.10 **Records**

(a) Each licensed parachute rigger shall keep a record of the packing, maintenance, and alteration of parachutes performed or supervision of those activities.

(b) Each licensed parachute rigger who packs a parachute shall enter on the parachute packing record attached to the parachute, the date and place of the packing, a notation of any defects found during any inspection, and shall sign that record with his or her name and license number.

(c) Each parachute rigger shall sign the record required by paragraph (b) of this subsection with the name and the number of his or her license.

(d) The record required by paragraph (a) of this subsection shall contain, with respect to each parachute worked on, a statement of—

(1) Its type and make;

(2) Its serial number;

(3) The name and address of its owner or user;

(4) The kind and extent of the work performed;

(5) The date when and place where the work was performed; and

(6) The results of any drop tests made with it.

(e) Each person who makes a record under paragraph (a) of this subsection shall keep it for at least 2 years after the date it is made.

2.10.1.11 **Seal**

(a) Each licensed parachute rigger shall have a seal with an identifying mark prescribed by the Authority, and a seal press.

(b) After packing a parachute, the parachute rigger shall seal the pack with his or her seal in accordance with the manufacturer's recommendation for that type of parachute.

2.10.1.12 **Duration of Parachute Rigger License**

(a) Validity: The validity period of the license is five years. A license shall become invalid when a parachute rigger has ceased to exercise the privileges of the license for a period of 6 months. A license shall remain invalid until the parachute rigger's ability to exercise the privileges of the license has been re-established.

(b) Renewal. An parachute rigger license that has not expired may be renewed for an additional five years if the holder presents to the Authority evidence that he/she has within the past 6 months preceding the expiry date —

(1) Be actively engaged in the duties of a parachute rigger, or

(2) Received refresher training acceptable to the Authority.

(c) Reissue. If the parachute rigger license has expired, the applicant shall have received refresher training acceptable to the Authority and pass a skill test on the areas of operations in either IS 2.10.1.3, IS 2.10.1.4, or IS 2.10.1.5, as applicable to the license and ratings to be renewed.

2.10.1.13 **Display of License**

(a) Each person who holds a parachute rigger license shall keep it within the immediate area where he/she normally exercises the privileges of the license and shall present it for inspection upon the request of the Authority or an authorized representative of the Director General, 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 License**

(a) Age. An applicant for parachute rigger instructor license and rating shall be at least 21 years of age.

(b) Knowledge.

(1) An applicant for a parachute rigger instructor license shall have met the instructor requirements in 2.2.6 of this part; and

(2) Any additional requirements as may be specified by the Authority.

(c) Experience. The applicant for a parachute rigger instructor license shall hold at least a current and valid parachute rigger license and ratings applicable to the instructor license sought, and have a minimum of three years' experience as a parachute rigger.

(d) Privileges. The privileges of a parachute rigger instructor license and rating are to give instruction to parachute rigger license applicants and to endorse those applicants for a knowledge or skill test as applicable.

(e) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the parachute rigger instructor license is 2 years.

(f) Renewal. A parachute rigger instructor license that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date —

(1) Conducted at least six exercises in an approved course for a parachute rigger license; or

(2) Received refresher training acceptable to the Authority.

(g) Reissue. If the parachute rigger instructor license 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. An applicant for a Designated Parachute Rigger Examiner (DPRE) license shall be at least 23 years of age.

(b) General eligibility.

(1) Show evidence of a high level of aeronautical knowledge in the subject areas for the DPRE certification.

(2) Have held a DPR license for at least five years prior to the designation.

(3) Have been actively exercising the privileges of the DPR for the previous three years.

(4) Have a good record as a DPR and a person engaged in the industry and community with a reputation for hones and dependability.

(5) Have satisfactorily completed the DPRE orientation program with the Authority.

(6) The applicant must have fixed base of operations adequately equipped to all practical Subject Areas to return to service condition.

(7) The applicant shall have at the fixed base of operation adequate equipment to test the Tasks in each Area of Operation listed in the STS.

(8) The applicant shall have tools, equipment, current publications, and materials required to complete a project assignment as recommended by the parachute manufacture or industry standards.

2.10.3.2 **Knowledge**

(a) The applicant 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) Alterations of parachutes in accordance with manufactures and industry standards.

(4) Proper use of Seals for identification purposes.

(5) Proper record keeping requirements.

2.10.3.3 **Skill**

(a) The Authority shall observe the applicant conducting a complete actual Senior Parachute or Master Parachute Rigger certification using the approved STS in a satisfactory manner.

(b) The applicant shall complete all required paper work 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 parachute rigger license 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 each 12 calendar months.

2.10.3.5 **Privileges**

(a) The DPRE may conduct Skill test for the Senior Parachute Rigger and Master Parachute Rigger license in accordance with approved STS standard.

(b) The DPRE may conduct or monitor any portion of a computerized knowledge test.

2.10.3.6 **Validity**

(a) The DPRE examiner designation shall be valid for three years.

2.10.3.7 **Renewal**

(a) The DPRE examiner designation may be renewed by the Authority if:

(1) The need for the designation remains valid.

(2) The performance of the examiner has been satisfactory.

(3) The DPRE examiner has attended the DPRE examiner seminar conducted by the Authority in the previous 12-month period.

(b) The applicant shall complete all required paper work for the certification as required by the Authority.

2.11 MEDICAL PROVISIONS FOR LICENSING

2.11.1 **APPLICABILITY**

(a) This Section prescribes the requirements and procedures for issuing, renewing and reissuing Class 1, Class 2 and Class 3 medical certificates.

Note 1: States shall apply, as part of their State safety program, basic safety management principles to the medical assessment process of license holders that as a minimum include:

- Routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
- Continuous re-evaluation of the medical assessment process to concentrate on identified areas of increases medical risk.

Such direction would typically be included in the internal orders of the Authority, rather than in regulations.

Note 2: A framework for the implementation and maintenance of a State safety program is contained in Attachment A to Annex 19. Guidance on State safety program and safety management principles is contained in Safety Management Manual (SMM) (Doc 9859) and the Manual of Civil Aviation Medicine (Doc 8984)

2.11.1.1 **Medical Fitness**

(a) The applicants for a flight crew license and air traffic controller license shall hold a medical certificate issued in accordance with this Part.

(b) The flight crew members or air traffic controllers shall not exercise the privileges of their license unless they hold a current medical certificate appropriate to the license.

2.11.1.2 **Aviation Medical Examiners (AME)**

(a) Subject to compliance with the requirements specified in this Part, the Authority may designate qualified and licensed physicians in the practice of medicine, to be authorized as an AME and conduct medical examinations of fitness of applicants for the issue, renewal or re-issue of the licenses or ratings specified in this Part. AMEs may be designated outside of Liberia

(b) AMEs 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 listed in IS 2.11.1.2. (a); and

(2) Advanced training in aviation medicine for Class 1 medical examinations on the subjects listed in IS 2.11.1.2(b).

(c) AMEs should acquire knowledge and experience of the conditions in which the holders of licenses 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 Licensing Authority to meet this requirement.

(d) The AME shall be required to submit sufficient information to the Licensing Authority to enable that Authority to undertake Medical Assessments 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 the Manual of Civil Aviation Medicine (Doc 8984).

(e) The authorization of an AME is valid for 3 years. The AME 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 this Section, the AME shall submit a signed report to the Authority, detailing the results of the examination.

(g) If the medical examination is carried out by a constituted group of AMEs, the head of the group will be appointed by the Authority, who 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 AME.

(i) The AME shall respect medical confidentiality at all times.

(j) The AME shall securely hold all medical reports and records with accessibility restricted to authorized personnel.

2.11.1.3 **Aviation Medical Examinations**

(a) Applicants for licenses 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 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 2.2.5.5(c).

(e) Any false declaration to a medical examiner made by an applicant for a license 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 Liberia Civil Aviation Authority.

2.11.1.4 **Special Circumstances**

(a) If the medical requirements prescribed in Part 2 for a particular license are not met, the appropriate medical certificate will not be issued, renewed or re-issued unless the following conditions are fulfilled:

(1) 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 license applied for is not likely to jeopardize flight safety;

(2) Relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and

(3) The license is endorsed by the Authority with any special limitation or limitations when the safe performance of the license holder's duties is dependent on compliance with such limitation or limitations.

(b) The AME shall report to the Authority any individual case where, in the AME's judgment, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the license being applied for, or held, is not likely to jeopardize flight safety.

2.11.1.5 **Decrease of Medical Fitness**

(a) Holders of licenses provided for in this Part shall not exercise the privileges of their licenses 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.

Note: Guidance on physical and mental conditions and treatments that are relevant to flight safety about which information may need to be forwarded to the Licensing Authority is contained in the Manual of Civil Aviation Medicine (Doc 8984).

2.11.1.6 **Use of Psychoactive Substances**

(a) Holders of licenses provided for in this Part shall not exercise the privileges of their licenses 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 licenses provided for in this Part shall not engage in any problematic use of substances.

Note.- Guidance on suitable methods of identification (which may include biochemical testing on such occasions as pre-employment, upon reasonable suspicion, after accidents/incidents, at intervals, and at random) and on other prevention topics is contained in ICAO Doc 9654, Manual on Prevention of Problematic Use of Substances in the Aviation Workplace.

2.11.1.7 **Medical Certificate**

(a) The medical certificate--

(1) shall be in a form and manner prescribed by the Authority. The items required on the license are indicated in IS 2.11.1.7, and

(2) carried in the possession of the personnel license holder at all times while exercising the privileges of a personnel license.

(b) Issue of medical certificates.

(1) A medical certificate will be issued to any person 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 3 medical certificates may be delegated to any authorized AME.

(2) Each person to be issued a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this Subpart.

(3) Any person who does not meet the medical requirements of this Subpart may apply for the discretionary issuance of a certificate under 2.11.1.4.

(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 licenses.

(ii) 12 months for the Class 2 for the FE and FN licenses.

(iii) 60 months for the Class 2 for the PPL licenses.

(iv) 48 months for the Class 3 for the air traffic controller license.

(2) The exceptions for the validity period of the medical certificate are:

(i) When the holders have passed their 40th birthday:

(A) The 60 month interval specified for the PPL and the 48th month interval specified for the air traffic controller license shall be reduced to 24 months; and

(B) The 12-month interval specified for the CPL and ATPL who are carrying passengers in single-pilot operations shall be reduced to 6 months.

(ii) When holders have passed their 50th birthday:

(A) The 24-month interval specified for the PPL and air traffic controller license shall be reduced to 12 months.

(iii) When holders have passed their 60th birthday:

(A) The 12-month interval specified for the CPL, MPL, and ATPL who are 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 at the discretion of the Licensing Authority, up to 45 days.

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 re-issue of a medical certificate.

(1) The requirements to be met for the renewal or re-issue 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) Re-issue of the Class 1 medical certificate will either be done by the Authority or specifically delegated to an AME.

(4) Re-issue 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 paragraph 2.2.9 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 Part 2.

2.11.1.8 **Medical Assessor**

(a) The CAA medical assessor will periodically evaluate the competence of each AME.

(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 this Part, 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 Assessment 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 which 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 license and rating privileges.

Note 1: Guidance on assessment of applicants treated with antidepressant medication is contained in the Manual of Civil Aviation Medicine (Doc8984).

Note 2: Mental and behavioral disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as

given in the International Statistical Classification of Diseases and Related Health Problems,10th Edition – Classification of Mental and Behavioral Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.

2.11.2.3 **Visual Acuity Test Requirements**

(a) Visual acuity tests must be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m²).

(b) Visual acuity must 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 colors 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 International Commission of Illumination (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 colors used in air navigation and correctly identify aviation colored 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 license 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 age of the applicant.

(c) If a pure tone audiometer is used, the reference zero for calibration is that of the International Organisation for Standardization (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 60dB(A) and that of a whispered voice is 45dB(A). At 2 m from the speaker, the sound is 6 dB(A) lower.

(e) The holder of a PPL with an instrument rating 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 medical certificate shall be the same as that for the initial assessment except where otherwise specifically stated.

(2) An applicant for a CPL or ATPL shall undergo an initial medical examination for the issue of a Class 1 Medical Certificate.

(3) Except where otherwise stated in this subpart, holders of CPL or ATPL shall have their Class 1 medical certificate renewed at intervals not exceeding those specified below.

(4) In alternate years, for Class 1 applicants under 40 years of age, the Liberia Civil Aviation Authority may, at its discretion, allow medical examiners to omit certain routine examination items related to the assessment of physical fitness, while increasing the emphasis on health education and prevention of ill health.

Note. Guidance for Licensing Authorities wishing to reduce the emphasis on detection of physical disease, while increasing the emphasis on health education and prevention of ill health, in applicants under 40 years of age, is contained in the Manual Civil Aviation Medicine (Doc 8984).

(5) A Class 1 medical certificate will be issued when the applicant complies with the requirements of this Part.

(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 license applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioral disorder due to use of psychoactive substances; this 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 behavior, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioral 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 non-progressive 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 license and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(4) The applicant shall not have 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 license and rating privileges shall be assessed as unfit.

(5) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's license and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(6) An applicant who has undergone coronary by-pass 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 license 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 license 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 re-examination of applicants over the age of 50 at least annually.

Note 1: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

Note 2: Guidance on resting and exercise electrocardiography is published in the Manual of Civil Aviation Medicine (Doc 8984).

(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 license and rating privileges.

Note: Extensive guidance on the subject is published in the Manual of Civil Aviation Medicine (Doc 8984).

(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 should 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) Applicant's 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 license or rating privileges.

(16) Applicant's 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 license and rating privileges.

Note: Guidance material on hazards of the medications is published in the Manual of Civil Aviation Medicine (Doc 8984).

(18) Applicants with active pulmonary tuberculosis shall be assessed as unfit.

(19) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

Note: Guidance material on assessment of respiratory diseases is published in the Manual of Civil Aviation Medicine (Doc 8984).

(20) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

(21) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.

(22) Applicants 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 should be assessed as unfit until such time as the medical Authority designated for the purpose by Liberia 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) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's license and rating privileges shall be assessed as unfit.

(25) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

Note: Guidance material on assessment of Type 2 insulin treated diabetic applicants, under the provisions of 2.11.1.4, is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(26) 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 license and rating privileges.

(27) Applicants with disease 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 license and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(28) Applicants 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 license and rating privileges.

(29) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

Note: Guidance material on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(30) Applicants 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 the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's license or rating privileges.

(31) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(32) Applicants who are seropositve for human immunodeficiency virus (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 license or rating privileges.

Note 1: 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.

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(33) Applicants who are 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 license 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 license and ratings.

(35) The 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 license 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 which is likely to interfere with the safe exercise of the applicant's license and rating privileges.

(37) There shall be:

(iv) No disturbance of vestibular function;

(v) No significant dysfunction of the Eustachian tubes; and

(vi) No unhealed perforation of the tympanic membranes.

(38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

Note: Guidance on testing of the vestibular function is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(39) There shall no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's license and rating privileges.

(40) Applicants 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 license 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 license 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 license.

Note 1: Item (2) is the subject of Standards in Annex 6, Part 1.

Note 2: 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 correct visual acuity are normally measured and recorded at each re-examination. 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) Applicants may use contact lenses to meet the requirement of (b) 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 license privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

(4) Applicants 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 minimize peripheral field distortion.

(5) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical certificate and every five years thereafter.

Note 1: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

Note 2: Guidance on the assessment of monocular applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their license and rating privileges.

(7) The 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 correcting 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 license.

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: N5 and N14 refer to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: 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 3: 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 this paragraph, 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 five years up to the age of 40 years.

(iii) At least once every three years after the age of 40 years.

(2) The 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 2 000 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 cockpit of an aircraft of the type for which the applicant's license 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, a FE or FN license 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, a FE or a FN license 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 this Part.

(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 license applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioral disorder due to use of psychoactive substances; this 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 behavior, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioral 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, should be assessed as unfit unless the medical assessor, have access to the details of the case concerned, considers the applicants, condition as unlikely to interfere with the safe exercise of the applicant's license and rating privileges.

Note 1: Guidance on assessment of applicants treated with antidepressant medication is contained in eh Manual of Civil Aviation Medicine (Doc 8984)

Note 2: mental and behavioral disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related health Problems 10th Edition – Classification of Mental and Behavioral Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.

(4) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or non-progressive 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 license and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(5) The applicant shall not have 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 license and rating privileges shall be assessed as unfit.

(6) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's license and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(7) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarection 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 license 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 license 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 re-examinations every two years after the age of 50.

Note 1: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

Note 2: Guidance on resting and exercise electrocardiography is published in the Manual of Civil Aviation Medicine (Doc 8984).

(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 license and rating privileges.

Note: Extensive guidance on the subject is published in the Manual of Civil Aviation Medicine (Doc 8984).

(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 should 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) Applicant's 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 license or rating privileges.

(15) Applicant's 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 license and rating privileges.

Note: Guidance material on hazards of the medications is published in the Manual of Civil Aviation Medicine (Doc 8984).

(17) Applicants with active pulmonary tuberculosis shall be assessed as unfit.

(18) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

Note: Guidance material on assessment of respiratory diseases is published in the Manual of Civil Aviation Medicine (Doc 8984).

(19) Applicants 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) Applicants 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 should be assessed as unfit until such time as the medical Authority designated for the purpose by Liberia 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) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's license and rating privileges shall be assessed as unfit.

(24) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

Note: Guidance material on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(25) 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 license and rating privileges.

(26) Applicants with disease 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 license and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(27) Applicants with renal or genitor-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's license and rating privileges.

(28) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

Note: Guidance material on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(29) Applicants 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 the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's license or rating privileges.

(30) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(31) Applicants who are seropositve for human immunodeficiency virus (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 license or rating privileges.

Note 1: 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.

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(32) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.

(33) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with item 32 above, the fit assessment should 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 license 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 license and ratings.

(35) The 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 license 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 which is likely to interfere with the safe exercise of the applicant's license 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.

Note: Guidance on testing of the vestibular function is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(39) There shall no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's license and rating privileges.

(40) Applicants 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 license 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 license 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 license.

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 correct visual acuity are normally measured and recorded at each re-examination. 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) Applicants may use contact lenses to meet the requirement of (b) 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 license privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

(4) Applicants 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 minimize peripheral field distortion.

(5) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical certificate and every five years thereafter.

Note 1: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

Note 2: Guidance on the assessment of monocular applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their license and rating privileges.

(7) The 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 correcting 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 license. 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: N5 refers to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: 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 3: 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 this paragraph, 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 two 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 Air Traffic Controller license 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 an Air Traffic Controller license 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 this Part.

(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 license applied for or held:

(i) An organic mental disorder;

(ii) A mental or behavioral disorder due to use of psychoactive substances; this 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 behavior, particularly if manifested by repeated overt acts;

(vii) Mental retardation;

(viii) A disorder of psychological development;

(ix) A behavioral 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, should be assessed as unfit unless the medical assessor, have access to the details of the case concerned, considers the applicants, condition as unlikely to interfere with the safe exercise of the applicant's license and rating privileges.

Note 1: Guidance on assessment of applicants treated with antidepressant medication is contained in eh Manual of Civil Aviation Medicine (Doc 8984)

2: mental and behavioral disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related health Problems 10th Edition – Classification of Mental and Behavioral Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.

(4) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or non-progressive 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 license and rating privileges;

(ii) Epilepsy; or

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause.

(5) The applicant shall not have 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 license and rating privileges shall be assessed as unfit.

(6) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's license and rating privileges. A history of proven myocardial infarction shall be disqualifying.

(7) An applicant who has undergone coronary by-pass 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 license 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 license or rating privileges.

(9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate and in re-examinations every two years after the age of 50.

Note 1: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

Note 2: Guidance on resting and exercise electrocardiography is published in the Manual of Civil Aviation Medicine (Doc 8984).

(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 license and rating privileges.

Note: Extensive guidance on the subject is published in the Manual of Civil Aviation Medicine (Doc 8984).

(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 should form a part of the initial chest examination.

Note: Periodic chest radiography is usually not necessary but may be a necessity situations where asymptomatic pulmonary disease can be expected.

(14) Applicant's 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 license or rating privileges.

(15) Applicant's 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 license and rating privileges.

Note: Guidance material on hazards of the medications is published in the Manual of Civil Aviation Medicine (Doc 8984).

(17) Applicants with active pulmonary tuberculosis shall be assessed as unfit.

(18) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

Note: Guidance material on assessment of respiratory diseases is published in the Manual of Civil Aviation Medicine (Doc 8984).

(19) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.

(20) Applicants 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 should be assessed as unfit until such time as the medical Authority designated for the purpose by Liberia 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) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's license and rating privileges shall be assessed as unfit.

(23) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

Note: Guidance material on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(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 license and rating privileges.

(25) Applicants with disease 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 license and rating privileges.

Note: Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(26) Applicants with renal or genitor-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's license and rating privileges.

(27) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

Note: Guidance material on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(28) Applicants with sequelae of disease or surgical procedures on the kidneys or the genito-urinary 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 the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's license or rating privileges.

(29) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(30) Applicants who are seropositve for human immunodeficiency virus (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 license or rating privileges.

Note 1: 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..

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(31) Applicants who are 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 should be taken for the timely relief of an air traffic controller in the event of early onset of labor or other complications

(33) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance (31) the fit assessment should 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 license 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 license and ratings.

(35) The 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 license 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 which is likely to interfere with the safe exercise of the applicant's license and rating privileges.

(37) There shall no malformation or any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's license and rating privileges.

(38) Applicants 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 adnexa 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 adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's license 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 license 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 license.

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 correct visual acuity are normally measured and recorded at each re-examination. 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) Applicants may use contact lenses to meet the requirement of (b) 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 license privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

(4) Applicants 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) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 should be required to provide a full ophthalmic report prior to initial Medical Certificate and every five years thereafter.

Note 1: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.

Note 2: Guidance on the assessment of monocular applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their license and rating privileges.

(7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), 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 correcting 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 license. 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: N5 and N14 refer to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: 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 3: 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 this paragraph, 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 four years up to the age of 40 years.

(iii) At least once every two 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, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 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 will reproduces or simulates that experience in a normal air traffic control working environment.

(4) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's license and ratings are valid may be used.

LIBERIA CIVIL AVIATION AUTHORITY

Part 2 — IMPLEMENTING STANDARDS

For ease of reference the number assigned to each implementing standard corresponds to its associated regulation. For example IS: 2.2.2 would reflect a standard required in subsection 2.2.2.

IS 2.2.2 Language Proficiency

(a) General

(1) To meet the language proficiency requirements contained in 2.2.2, an applicant for a license or a license holder shall demonstrate, in a manner acceptable to the Authority, compliance with the holistic descriptors in paragraph (b) below and with the Operational Level (Level 4) of the Language Proficiency Rating Scale as mentioned in paragraph c) below.

(b) Holistic descriptors: Proficient speakers shall:

(1) Communicate effectively in voice-only (telephone/radiotelephone) and in 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 recognize 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 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 memorized grammatical structures and sentence patterns.

(iii) Vocabulary: Limited vocabulary range consisting only of isolated words and memorized phrases.

(iv) Fluency: Can produce very short, isolated, memorized 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, memorized 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 (Level 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) Interaction: 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 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 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. Managers the speaker/listener relationship effectively.

(6) Expert Level (Level 6):

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation, thought 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 emphasize 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) Requirements for a military pilot to meet the requirements of 2.2.3.1.

(b) Military pilots on active flying status within the past 12 months. The holder of a military pilot license (or certificate) who has been on active flying status within the 12 months before applying shall:

(1) Pass a knowledge test on the appropriate parts of these regulations that apply to pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules;

(2) Present documentation showing compliance with the requirements of paragraph (c) of this subsection 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 before the month of application the holder of a military pilot license (or certificate) on active flying status in an armed force of Liberia.

(c) Aircraft category, class and type ratings. The Authority may issue to the holder of a military pilot license (or certificate) an aircraft category, class or type rating to a commercial pilot license if the pilot present documentary evidence that shows satisfactory accomplishment of:

(1) A military pilot check and instrument proficiency check of Liberia in that aircraft category, class or type, if applicable, as PIC during the 12 calendar months before 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 before the month of application.

(d) Instrument rating. The holder of a military pilot license (or certificate) may apply for an aeroplane or helicopter instrument rating to be added to his or her commercial pilot license 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 Liberia in the aircraft category for the instrument rating sought; and

(2) Received authorization from an armed force of Liberia to conduct IFR flights on airways in that aircraft category and class for the instrument rating 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 airline transport pilot license. The Authority may issue to the holder of a military pilot license (or certificate) who holds an airline transport pilot license an aircraft type rating provided that the pilot:

(1) Holds a category and type rating for that type of aircraft at the airline transport pilot license level; and

(2) Passed an official military pilot of Liberia check and instrument proficiency check in that type of aircraft as PIC during the 12 calendar months before 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 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 Liberia:

(3) At least one of the following:

(i) An order of an armed force of Liberia to flight status as a military pilot

(ii) An armed force form or logbook showing military pilot status; or

(iii) An order showing that the applicant graduated from a military pilot school of Liberia 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 Liberia.

(5) An official armed force of Liberia record of a military designation as PIC.

(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 Flightcrew Licences by Reliance upon the Licensing System of Another Contracting State

(a) The Authority should, before making the agreement mentioned in 2.2.4.3 (a)(3) be convinced, that the other Contracting State issues licenses in conformity with at least this 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 Liberia, or from another Contracting State delegated by the Authority of Liberia, must visit the other Contracting State to be convinced that the licensing system in the other Contracting State is in conformity with at least this Part 2. A report describing the bases for the decision shall be made to the Authority of Liberia. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.

(c) An Air Law test must be arranged if the Air Law system of Liberia is different from the Air Law system from the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures and radiotelephony if those areas are different between Liberia 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 Flightcrew Licences by Reliance upon the Licensing System of Another Contracting State

(a) The Authority that issues a converted license based on a license from another Contracting State remains responsible for the converted license.

(b) The Authority should, before making the agreement mentioned in 2.2.4.4 (a)(3) be convinced, that the other Contracting State issues licenses in conformity with at least this 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 Liberia, or from another Contracting State delegated by the Authority of Liberia, must visit the other Contracting State to be convinced that the licensing system in the other Contracting State is in conformity with at least this Part 2. A report describing the bases for the decision shall be made to the Authority of Liberia. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.

(1) An Air Law test must be arranged if the Air Law system of Liberia is different from the Air Law system from the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures and radiotelephony if those areas are different between Liberia and the other Contracting State.

(d) Renewal and re-issue of converted licenses and ratings:

(1) When examiners are available in Liberia to perform proficiency checks for the renewal of rating(s) or skill tests for the re-issue of the license or rating(s), these tests/checks will be performed by the authorized examiners of Liberia;

(2) When examiners are not available in Liberia to perform proficiency checks for the renewal of the rating(s) or skill test for the re-issue of the license or rating(s), the availability of examiners for these tests/checks from the other Contracting State can be arranged in the agreement mentioned in 2.2.4.4 (a)(3).

(e) Application for the conversion of a license 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 State, may also be addressed in the government-to-government agreement between the States.

IS 2.2.4.9 Procedures for Validation of AMT Licenses by Reliance upon the Licensing System of Another Contracting State

(a) The Authority should, before making the agreement mentioned in 2.2.4.9 (a)(3) be convinced, that the other Contracting State issues licenses in conformity with at least this 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 Liberia, or from another Contracting State delegated by the Authority of Liberia, must visit the other Contracting State to be convinced that the licensing system in the other Contracting State is in conformity with at least this Part 2. A report describing the bases for the decision shall be made to the Authority of Liberia. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.

(c) An Air Law test must be arranged if the Air Law system of Liberia is different from the Air Law system from the other Contracting State. The knowledge test may also include Liberia airworthiness requirements governing certification and continuing airworthiness, and approved maintenance organizations and procedures if those regulations are different from the 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 Licenses by Reliance upon the Licensing System of Another Contracting State

(a) The Authority that issues a converted license based on a license from another Contracting State remains responsible for the converted license.

(b) The Authority should, before making the agreement mentioned in 2.2.4.10 (a)(3) be convinced, that the other Contracting State issues licenses in conformity with at least this 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 Liberia, or from another Contracting State delegated by the Authority of Liberia, must visit the other Contracting State to be convinced that the licensing system in the other Contracting State is in conformity with at least this Part 2. A report describing the bases for the decision shall be made to the Authority of Liberia. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.

(1) An Air Law test must be arranged if the Air Law system of Liberia is different from the Air Law system from the other Contracting State. The knowledge test may also include Liberia airworthiness requirements governing certification and continuing airworthiness, and approved maintenance organizations and procedures if those regulations are different from the Contracting State.

(d) Renewal and re-issue of converted licenses and ratings:

(1) when examiners are available in Liberia to perform proficiency checks for the renewal of rating(s) or skill tests for the re-issue of the license or rating(s), these tests/checks will be performed by the authorized examiners of Liberia;

(2) when examiners are not available in Liberia to perform proficiency checks for the renewal of the rating(s) or skill test for the re-issue of the license or rating(s), the availability of examiners for these tests/checks from the other Contracting State can be arranged in the agreement mentioned in 2.2.4.4 (a)(3).

(e) Application for the conversion of a license 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 2.2.8 Specifications and Format of the License

(a) The following details shall appear on the license and the numbering scheme shall be in Roman numerals.

(i) Name of Liberia (in bold type);

(ii) Title of license (in very bold type)

(iii) Serial number of the license, in Arabic numerals, given by the authority issuing the license;

(iv) Name of holder in full;

(Iva) Date of birth;

(v) Address of holder;

(vi) Nationality of holder;

(vii) Signature of holder;

(viii) Authority and, where necessary, conditions under which the license is issued;

(ix) Certification concerning validity and authorization for holder to exercise privileges appropriate to the license;

(x) Signature of officer issuing the license and the date of such issue;

(xi) Seal or stamp of authority issuing the license;

(xii) Ratings, (e.g. Category, class, type of aircraft, airframe, aerodrome control, etc.);

(xiii) Remarks, (i.e. special endorsements relating to limitations and endorsements for privileges, including from 5 March 2008 an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention);

(xiv) Any other details desired by the State issuing the license.

(b) The privileges and ratings shall be clearly identified on the license in items (a) (IX) and (XII).

Note: Item (VI) Nationality is presumed to be citizenship of the license holder.

IS 2.3.1.7 Recording of Flight Time

(a) The details in the records of flights flown as pilot shall contain the items in (b) and (c) below.

(b) For the purpose of meeting the requirements of 2.3.1.6, each person shall enter the following information for each flight or lesson logged.

(1) Personal details:

(i) Name of the holder.

(ii) Address of the holder.

(2) For each flight:

(i) Name of PIC.

(ii) Date of flight.

(iii) Place and time of departure and arrival.

(iv) Type of aircraft and registration.

(3) For each session in a flight simulation training device:

(i) Type and qualification number of flight simulation training device.

(ii) Flight simulation training device instruction.

(iii) Date.

(iv) Total time of session.

(2) Pilot function:

(i) Solo.

(ii) PIC.

(iii) Co-pilot.

(iv) Dual.

(v) Flight instructor.

(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 license 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 authorized instructor may log as PIC time all of the flight time while acting as an authorized instructor.

(iii) A student pilot may log as PIC time all solo flight time and flight time as student pilot-in-command provided that such time is countersigned by the instructor.

(3) Logging of co-pilot time:

(i) A person may log co-pilot time only when occupying a pilot seat as co-pilot 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 authorized instructor in an aircraft or flight simulation training device.

(ii) The instruction time shall be logged in a record (e.g. logbook) and shall be endorsed by the authorized instructor.

IS 2.3.2.5 Category II and III Authorization

(a) The Authority will issue a Category II or Category III pilot authorization by letter, as a part of an applicant's instrument rating or airline transport pilot certificate.

(b) Upon original issue the authorization will contain the following limitations—

(1) For Category II operations, 1,600 feet RVR and a 150-foot decision height; and

(2) For Category III operations, as specified in the authorization document.

(c) To remove the limitations on a Category II or Category III pilot authorization—

(1) A Category II limitation holder may remove the limitation by showing that, since the beginning of the sixth preceding month, the holder has made three Category II ILS approaches with a 150-foot decision height to a landing under actual or simulated instrument conditions; or

(2) A Category III limitation holder may remove the limitation by showing experience as specified in the authorization.

(d) An authorization holder or an applicant for an authorization 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 (e) of this subsection, or for the practical test required by Part 2 for a Category II or a Category III pilot authorization, as applicable.

(e) Category II: skill test requirements.

(1) An applicant for the following authorizations shall pass a skill test:

(i) Issuance or renewal of a Category II pilot authorization.

(ii) The addition of another type aircraft to a Category II pilot authorization.

(2) To be eligible for the skill test for an authorization under this subsection, an applicant shall—

(i) Meet the requirements of 2.3.2.5; and

(ii) If the applicant has not passed a skill test for this authorization during the 12 calendar months preceding the month of the test—

(iii) Meet the requirements of 8.4.10; and

(iv) 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 paragraph (e)(2)(ii)(B) of this subsection—

(i) Under actual or simulated instrument flight conditions;

(ii) To the minimum decision height 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 decision height authorized for Category II operations;

(iii) To the decision height authorized for Category 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 flight simulator that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorization is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certified under Part 3.

(4) The flight time acquired in meeting the requirements of paragraph (e) (2) (ii) (B) of this subsection may be used to meet the requirements of paragraph (e) (2) (ii) (A) of this subsection.

(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 decision height;

(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 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 Category II equipment;

(x) Assigned duties of the SIC during Category II approaches, unless the aircraft for which authorization is sought does not require an SIC; 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, class, and type, as applicable, as the aircraft in which the authorization 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 authorization is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certified under Part 3.

(ii) The flight increment shall consist of at least two ILS approaches to 100 feet 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 multiengine 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 multiengine flight simulator or approved multiengine flight training device is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.

(vi) For an authorization for an aircraft that requires a type rating, the applicant shall pass a practical test in co-ordination with a SIC who holds a type rating in the aircraft in which the authorization is sought.

(vii) An inspector or 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 Category III pilot authorization.

(ii) The addition of another type of aircraft to a Category III pilot authorization.

(2) To be eligible for the skill test an applicant shall—

(i) Meet the requirements of 2.2.1.6; and

(ii) If the applicant has not passed a practical test for this authorization during the 12 calendar months preceding the month of the test—

(A) Meet the requirements of 8.4.10 and 8.10.20, 8.10.32.; 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 paragraph (2)(ii)(B) of this subsection—

(i) Under actual or simulated instrument flight conditions;

(ii) To the alert height or decision height for the ILS approach in the type aircraft in which the practical test is to be conducted;

(iii) Not necessarily to the decision height authorized for Category III operations;

(iv) To the alert height or decision height, as applicable, authorized for Category 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 authorization is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certified under Part 3, Subpart 3.3.

(4) Knowledge requirements: An applicant shall demonstrate knowledge of the following:

(i) Required landing distance.

(ii) Determination and recognition of the alert height or decision height, 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 decision height, 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 Category III equipment.

(x) Assigned duties of the SIC during Category III operations, unless the aircraft for which authorization is sought does not require a SIC.

(xi) Recognition of the limits of acceptable aircraft position and flight path tracking during approach, flare, and, if applicable, rollout.

(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 authorization 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 authorization is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certified under Part 3.

(ii) The practical test shall consist of at least two ILS approaches to 100 feet 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 multiengine 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 multiengine flight simulator or approved multiengine 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 authorization for an aircraft that requires a type rating, the applicant shall pass a practical test in co-ordination with a SIC who holds a type rating in the aircraft in which the authorization is sought; and

(vii) Subject to the limitations of this paragraph, for Category 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 Category IIIb operations

(6) An inspector or evaluator may conduct oral questioning at any time during the practical test.

IS 2.3.3 Student Pilots

(a) 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 Pilots: Manoeuvres and Procedures for Pre-Solo Flight Training—Aeroplane Category

(a) 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 preflight planning and preparation, powerplant operation and aircraft systems.
(2) Taxiing, or surface operations, including runups.
(3) Takeoffs 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 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 area with simulated engine malfunctions.
(14) Slips to a landing (SE only).
(15) Go-arounds.

IS 2.3.3.3 Student Pilots: Manoeuvres and Procedures for Pre-Solo Flight Training—Helicopter Category

(a) 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 preflight planning and preparation, powerplant operation and aircraft systems.
(2) Taxiing, or surface operations, including runups.
(3) Takeoffs 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 auto rotational descents with a power recovery and power recovery to hover.
(16) Rapid decelerations.
(17) Simulated one-engine-inoperative approaches and landings for multi-engine helicopters (ME).

IS 2.3.3.4 Student Pilots: Manoeuvres and Procedures for Pre-Solo Flight Training—Powered-Lift Category

(a) 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 preflight planning and preparation, powerplant operation and aircraft systems.
(2) Taxiing, or surface operations, including runups.
(3) Takeoffs 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 turn.
(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 area with simulated engine failure.
(14) Go-arounds.
(15) Approaches to the landing area.
(16) Hovering and hovering turns.
(17) Simulated one-engine-inoperative approaches and landings for multi-engine powered-lift (ME).

IS 2.3.3.5 Student Pilots: Manoeuvres and Procedures for Pre-Solo Flight Training—Airship Category

(a) 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 preflight planning and preparation, powerplant operation and aircraft systems.

(2) Taxiing, or surface operations, including runups.
(3) Takeoffs 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 turn.
(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.
(13) Landings with positive and with negative static trim.

IS 2.3.3.6 Student Pilots: Manoeuvres and Procedures for Pre-Solo Flight Training—Balloon Category

(a) A student pilot who is receiving training for solo flight in a balloon shall receive and log flight training for the following manoeuvres and procedures:

(1) Layout and assembly procedures;
(2) Proper flight preparation procedures, including preflight planning and preparation, and aircraft systems;
(3) Ascents and descents;
(4) Landing and recovery procedures;
(5) Emergency procedures and equipment malfunctions;
(6) Operation of hot air or gas source, ballast, valves, vents, and rip panels as appropriate;
(7) Use of deflation valves or rip panels for simulating an emergency;
(8) The effects of wind on climb and approach angles; and
(9) Obstruction detection and avoidance techniques.

IS 2.3.3.7 Student Pilots: Manoeuvres and Procedures for Pre-Solo Flight Training—Glider Category

(a) A student pilot who is receiving training for solo flight in a glider shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including preflight planning and preparation, aircraft systems, and is applicable, powerplant operations;
(2) Taxiing or surface operations, including runups, if applicable;
(3) Launches, including normal and crosswind;
(4) Straight and level flight, and turns in both directions, if applicable;
(5) Aerodrome traffic patterns, including entry procedures;
(6) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
(7) Descents with and without turns using high and low drag configurations;
(8) Flight at various airspeeds;
(9) Emergency procedures and equipment malfunctions;

(10) Ground reference manoeuvres;
(11) Inspection of towline rigging and review of signals and release procedures, if applicable;
(12) Aerotow, ground tow, or self-launch procedures;
(13) Procedures for disassembly and assembly of the glider;
(14) Stall entry, stall, and stall recovery;
(15) Straight glides, turns, and spirals;
(16) Landings, including normal and crosswind;
(17) Slips to a landing;
(18) Procedures and techniques for thermalling; and
(19) Emergency operations, including towline break procedures.

IS 2.3.4 Private Pilot Licence

IS 2.3.4.2 PPL Skill Test—Aeroplane Category

(a) The skill test for the single-engine and multi-engine private pilot license – 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) Licenses 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 tasks—
(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 tasks—

(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 2.3.4.3 PPL Skill Test—Helicopter Category

(a) The skill test for the private pilot license - 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) Licenses 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—

(6) Normal and crosswind takeoff and climb.

(7) Normal and crosswind approach.

(8) Maximum performance takeoff and climb.

(i) Steep approach.
(ii) Rolling takeoff.
(iii) Shallow approach and running/roll-on landing.
(iv) Go-around.

(9) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks—

(i) Rapid deceleration.
(ii) Straight in autorotation.

(10) 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.

(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) 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.

(12) 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.

(13) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—

(i) After landing and securing.

IS 2.3.4.4 PPL Skill Test—Powered-Lift Category

(a) Reserved.

IS 2.3.4.5 PPL Skill Test—Airship Category

(a) The skill test for the private pilot license- 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—

(8) Pilotage and dead reckoning.

(i) Navigation systems and radar services.
(ii) Diversion.
(iii) Lost procedures.

(9) 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.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Masting.
(ii) Post-masting.

IS 2.3.4.6 PPL Skill Test—Balloon Category

(a) The skill test for the private pilot license – balloon 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) 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) Launch site selection.
(ii) Crew briefing and preparation.
(iii) Layout and assembly.
(iv) Preflight inspection.
(v) Inflation.
(vi) Basket/gondola management.
(vii) Pre-launch check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications and ATC light signals.

(4) Launches and landing, including the applicant's knowledge and performance of the following tasks—

(i) Normal launch.
(ii) Launch over obstacle.
(iii) Approach to landing.
(iv) Normal landing.
(v) High-wind landing.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Ascents.
(ii) Altitude control (level flight).
(iii) Descents, to include recognition of, and recovery from, rapid descents
(iv) Contour flying.
(v) Obstacle clearance.
(vi) Tethering.
(vii) Winter flying.
(viii) Collision and avoidance pre-cautions
(ix) Mountain flying.

(6) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Navigation, to include cross country flying and dead reckoning, etc.

(7) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Systems and equipment malfunctions.
(ii) Emergency equipment and survival gear.
(iii) Water landing.

(iv) Thermal flight.

(8) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Recovery.
(ii) Deflation and packing.
(iii) Refuelling.

IS 2.3.4.7 PPL Skill Test—Glider Category

(a) The skill test for the private pilot license—glider 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) Licenses and documents.
(ii) Weather information.
(iii) Operation of systems.
(iv) Performance and limitations.
(v) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Assembly.
(ii) Ground handling.
(iii) Preflight inspection.
(iv) Cockpit management.
(v) Visual signals.

(3) Aerodrome and gliderport operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications.
(ii) Traffic patterns.
(iii) Aerodrome, runway, and taxiway signs, markings, and lighting.

(4) Launches– aero tow, including the applicant's knowledge and performance of the following tasks:

(i) Before takeoff checks.
(ii) Normal and crosswind takeoff.
(iii) Maintaining tow positions.
(iv) Slack line.
(v) Boxing the wake.
(vi) Tow release.
(vii) Abnormal occurrences.

(5) Launches– ground tow, including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff check.
(ii) Normal and crosswind takeoff.
(iii) Abnormal occurrences.

(6) Launches– self-launch, including the applicant's knowledge and performance of the following tasks—

(i) Engine starting.
(ii) Taxiing.
(iii) Before takeoff check.
(iv) Normal and crosswind takeoff and climb.
(v) Engine shutdown in flight.
(vi) Abnormal occurrences.

(7) Landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal and cross wind landing.
(ii) Slips to landing.
(iii) Downwind landing.

(8) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—

(i) Minimum sink airspeed.
(ii) Speed-to-fly.

(9) Soaring techniques, including the applicant's knowledge and performance of the following tasks—

(i) Thermal soaring.
(ii) Ridge and slope soaring.
(iii) Wave soaring.

(10) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Straight glides.
(ii) Turns to headings.
(iii) Steep turns.

(11) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Flight preparation and planning.
(ii) National airspace system.

(12) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks—

(i) Manoeuvring at minimum control airspeed.
(ii) Stall recognition and recovery.

(13) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Simulated off-airport landing.
(ii) Emergency equipment and survival gear.

(14) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) After-landing and securing.

IS 2.3.5.2 CPL Skill Test—Aeroplane Category

(a) 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) Licenses 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 tasks—

(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) Pressurization.

(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 2.3.5.3 CPL Skill Test—Helicopter Category

(a) The skill test for the commercial pilot license – 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) Licenses 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 2.3.5.4 CPL Skill Test—Powered-Lift Category

(a) Reserved.

IS 2.3.5.5 CPL Skill Test—Airship Category

(a) The skill test for the commercial pilot license – 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—

(ii) Aeromedical factors.
(iii) Visual scanning and collision avoidance.
(iv) Use of distractions during flight training.
(v) Principles of flight.
(vi) Airship weight-off, ballast, and trim.
(vii) Night operations.
(viii) Regulations and publications.
(ix) National airspace system.
(x) Logbook entries and license endorsement.

(2) Preflight preparation, including the applicant's knowledge and performance of the following tasks—

(i) Licenses 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 tasks—

(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 2.3.5.6 CPL Skill Test—Balloon Category

(a) The skill test for the commercial pilot license – balloon shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note: When (BH) is indicated, the item is for hot air balloons only. When (BG) is indicated, the item is for gas balloons.

(1) Technical subjects, 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) Regulations and publications.
(v) National airspace system.
(vi) Logbook entries and license endorsement.

(2) Preflight preparation, including the applicant's knowledge and performance of the following tasks—

(i) Licenses and documents.
(ii) Weather information.
(iii) 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 tasks—

(i) Manoeuvre lesson.

(4) Preflight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Launch site selection.

(ii) Crew briefing and preparation.

(iii) Layout and assembly.

(iv) Preflight inspection.

(v) Inflation.

(vi) Basket/gondola management.

(vii) Pre-launch check.

(5) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications.

(6) Launches and landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal launch.

(ii) Launch over obstacle.

(iii) Approach to landing.

(iv) Steep approach to landing.

(v) Normal landing.

(vi) High-wind landing.

(7) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Ascents.

(ii) Altitude control (level flight).

(iii) Descents.

(iv) Rapid ascent and descent.

(v) Contour flying (BH).

(vi) High altitude flight. (BG)

(vii) Obstacle avoidance (BH).

(viii) Tethering (BH).

(ix) Winter flying.

(x) Mountain flying.

(8) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Navigation.

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Systems and equipment malfunctions.

(ii) Emergency equipment and survival gear.
(iii) Water landing.
(iv) Thermal flight.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Recovery.
(ii) Deflation and pack-up.
(iii) Refueling (BH).

IS 2.3.5.7 CPL Skill Test—Glider Category

(a) The skill test for the commercial pilot license – glider 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) Licenses and documents.
(ii) Weather information.
(iii) Operation of systems.
(iv) Performance and limitations.
(v) Aeromedical factors.

(2) Preflight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Assembly.
(ii) Ground handling.
(iii) Preflight inspection.
(iv) Cockpit management.
(v) Visual signals.

(3) Aerodrome and gliderport operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications.
(ii) Traffic patterns.
(iii) Aerodrome, runway, and taxiway signs, markings, and lighting.

(4) Launches– aero tow, including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff checks.
(ii) Normal and crosswind takeoff.
(iii) Maintaining tow positions.
(iv) Slack line.
(v) Boxing the wake.
(vi) Tow release.
(vii) Abnormal occurrences.

(5) Launches– ground tow, including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff check.

(ii) Normal and crosswind takeoff.
(iii) Abnormal occurrences.

(6) Launches– self-launch, including the applicant's knowledge and performance of the following tasks—

(i) Engine starting.
(ii) Taxiing.
(iii) Before takeoff check.
(iv) Normal and crosswind takeoff and climb.
(v) Engine shutdown in flight.
(vi) Abnormal occurrences.

(7) Landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal and cross wind landing.
(ii) Slips to landing.
(iii) Downwind landing.

(8) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—

(i) Minimum sink airspeed.
(ii) Speed-to-fly.

(9) Soaring techniques, including the applicant's knowledge and performance of the following tasks—

(i) Thermal soaring.
(ii) Ridge and slope soaring.
(iii) Wave soaring.

(10) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Straight glides.
(ii) Turns to headings.
(iii) Steep turns.

(11) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Flight preparation and planning.
(ii) National airspace system.

(12) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks—

(i) Manoeuvring at minimum control airspeed.
(ii) Stall recognition and recovery.

(13) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Simulated off-aerodrome landing.
(ii) Emergency equipment and survival gear.

(14) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) After-landing and securing.

IS 2.3.6.2 Multi-crew Pilot License Skill Test – Aeroplane Category

(a) The skill test for the multicrew pilot license 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 2.3.7.2 ATPL and Aircraft Type Rating Skill Test—Aeroplane Category

(a) The skill test for the airline transport pilot license - 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 2.3.7.3 ATPL and Aircraft Type Rating Skill Test—Helicopter Category

(a) The skill test for the airline transport pilot license 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 of the tasks.

(8) Emergency procedures; including the applicant's knowledge and performance.

(9) Postflight procedures; including the applicant's knowledge and performance of the following tasks—

(i) After landing procedures.
(ii) Parking and securing.

IS 2.3.7.4 ATPL and Aircraft Type Rating Skill Test—Powered-Lift Category

(a) Reserved.

IS 2.3.8.2 Instrument Rating Skill Test and Proficiency Check

(a) 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—

(iii) Non-precision instrument approach.

(iv) Precision ILS instrument approach.

(v) Missed approach.

(vi) Circling approach.

(vii) 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 2.3.9.2 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 license 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) Licenses 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) Glossy 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 trims 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 - 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 license endorsements.

(3) Preflight preparation including the applicant's knowledge and performance of the following tasks—

(i) Licenses 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 tasks—

(i) After-landing and securing.

(c) Powered-lift Category.

(1) Reserved.

(d) **Airship Category.** The skill test and proficiency check for the flight instructor rating - 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 weight-off, ballast, and trim.
(vi) Night operations.
(vii) Regulations and publications.
(viii) National airspace system.
(ix) Logbook entries and license endorsement.

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks—

(i) Licenses 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 tasks—

(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) Balloon Category. The skill test and proficiency check for the flight instructor license with balloon instructor rating 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: When (BH) is indicated, the item is for hot air balloons only. When (BG) is indicated, the item is for gas balloons.

(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) Regulations and publications.
(vi) National airspace system.
(vii) Logbook entries and license endorsement.

(3) Preflight preparation, including the applicant's knowledge and performance of the following tasks—

(i) Licenses 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 tasks—

(i) Manoeuvre lesson.

(5) Preflight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Launch site selection.
(ii) Crew briefing and preparation.
(iii) Layout and assembly.
(iv) Preflight inspection.
(v) Inflation.
(vi) Basket/gondola management.
(vii) Pre-launch check.

(6) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications.

(7) Launches and landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal launch.
(ii) Launch over obstacle.
(iii) Approach to landing.
(iv) Steep approach to landing.
(v) Normal landing.
(vi) High-wind landing.

(8) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Ascents.
(ii) Altitude control (level flight).
(iii) Descents.
(iv) Rapid ascent and descent.
(v) Contour flying (BH).
(vi) High altitude flight (BG).
(vii) Obstacle avoidance (BH).
(viii) Tethering (BH).
(ix) Winter flying.
(x) Mountain flying.
(xi) Navigation, including the applicant's knowledge and performance of the following tasks—
(xii) Navigation.

(9) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Systems and equipment malfunctions.
(ii) Emergency equipment and survival gear.

(iii) Water landing.
(iv) Thermal flight.

(10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Recovery.

(11) Deflation and pack-up.

(i) Refueling (BH).

(f) Glider Category. The skill test and proficiency check for the flight instructor rating - glider 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) Elevators, ailerons, and rudder.
(vi) Trim, lift and drag devices.
(vii) Glider weight and balance.
(viii) Navigation and flight planning.
(ix) Regulations and publications.
(x) National airspace system.
(xi) Logbook entries and license endorsements.

(3) Preflight preparation; including the applicant's knowledge and performance of the following tasks—

(i) Licensees and documents.
(ii) Weather information.
(iii) Operation of systems.
(iv) Performance and limitations.

(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) Assembly.
(ii) Ground handling.
(iii) Preflight inspection.
(iv) Cockpit management.
(v) Visual signals.

(6) Aerodrome operations and gliderport operations; including the applicant's knowledge and performance of the following tasks—

(i) Radio communications.
(ii) Traffic patterns.
(iii) Aerodrome, runway, and taxiway signs, markings and lighting.

(7) Launches– aero tow, including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff checks.
(ii) Normal and crosswind takeoff.
(iii) Maintaining tow positions.
(iv) Slack line.
(v) Boxing the wake.
(vi) Tow release.
(vii) Abnormal occurrences.

(8) Launches– ground tow (auto or winch), including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff check.
(ii) Normal and crosswind takeoff.
(iii) Abnormal occurrences.

(9) Launches– self-launch, including the applicant's knowledge and performance of the following tasks—

(i) Engine starting.
(ii) Taxiing.
(iii) Before takeoff check.
(iv) Normal and crosswind takeoff and climb.
(v) Engine shutdown in flight.
(vi) Abnormal occurrences.

(10) Landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal and cross wind landing.
(ii) Slips to landing.
(iii) Downwind landing.

(11) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks—

(i) Straight glides.
(ii) Turns to headings.

(12) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—

(i) Minimum sink airspeed.

(ii) Speed-to-fly.

(13) Soaring techniques, including the applicant's knowledge and performance of the following tasks—

(i) Thermal soaring.

(ii) Ridge and slope soaring.

(iii) Wave soaring.

(14) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Steep turns

(ii) Recovery from a spiral dive.

(15) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks—

(i) Manoeuvring at minimum control airspeed.

(ii) Stall recognition and recovery.

(iii) Spins.

(16) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Simulated off-aerodrome landing.

(ii) Emergency equipment and survival gear.

(17) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) After-landing and securing.

(g) Flight Instructor for Instrument Ratings (A, H, and PL). The skill test and proficiency for the flight instructor for instrument ratings – 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 behavior 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.

(h) Flight Instructor for Additional Type Ratings. The skill test and proficiency checks for instructors for additional type ratings - 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 A and H.

(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 liftoff.

(E) Engine failure during take-off between V1 and V2 (Aeroplane).

(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 (Helicopter).

(I) Steep turns.

(J) Recovery from approach to stall/takeoff, clean landing configuration (Aeroplane).

(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 (Aeroplane).

(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 (Helicopter).

(M) Rejected landing and go-around.

(N) Crosswind landing.

(iii) Category II and II 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) Familiarization 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 (Aeroplane).

(F) Engine failure during takeoff short after TDP or DPATO after reaching climb out attitude (Helicopter).

(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 2.3.10.1 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) Authority inspector evaluates the pilot examiner applicant testing an actual pilot applicant for a license or rating.

(i) The Authority will arrange for the pilot examiner applicant to conduct a skill test for an actual pilot applicant for a license 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 license 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) 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 recognizes an incorrect answer, the incorrect response must be obviously wrong.

(3) 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 2.4.4.4 Flight Engineer: Skill Test and Proficiency Check

(a) The skill test and proficiency check for the flight engineer license 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) Preflight preparation; including the applicant's knowledge and performance of the following tasks—

(i) Equipment examination-systems knowledge.

(ii) Aircraft handbooks, manuals, minimum equipment list (MEL), configuration deviation list (CDL) and operations specifications.

(iii) Performance and limitations.

(2) Preflight procedures; including the applicant's knowledge and performance of the following tasks—

(i) Preflight inspection and cockpit setup.
(ii) Preflight inspection-exterior.

(3) Ground operations; including the applicant's knowledge and performance of the following tasks—

(i) Powerplant start.
(ii) Taxi and pre-takeoff checks.

(4) Normal procedures; including the applicant's knowledge and performance of the following tasks—

(i) Takeoff.
(ii) In-flight.
(iii) During approach and landing.
(iv) Engine systems monitoring.

(5) Abnormal and emergency procedures; including the applicant's knowledge and performance of the following tasks—

(i) Takeoff.
(ii) In-flight.
(iii) During approach and landing.
(iv) Engine systems monitoring.
(v) Postflight procedures.
(vi) After landing.
(vii) Parking and securing.

IS 2.4.6.2 Skill Test for Designated Flight Engineer Examiners

(a) The skill test for initial designation of a flight engineer examiner, issuance of additional class rating 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 and class ratings.

(b) Methods of skill testing. The Authority inspector will choose one of the following methods to test a flight engineer examiner applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.

(1) Authority inspector evaluates the flight engineer examiner applicant testing an actual flight engineer applicant for a license and class rating or proficiency check.

(i) The Authority will arrange for the flight engineer examiner applicant to conduct a skill test for an actual flight engineer applicant for a license or added rating or proficiency check appropriate to the examiner designation sought, and the Authority inspector will observe the test from within the aircraft or flight simulation training device as applicable.

(ii) The Authority inspector will evaluate the flight engineer examiner applicant's performance while the flight engineer examiner applicant evaluates the flight engineer applicant.

(iii) Any discussion between the flight engineer examiner applicant and the Authority inspector concerning the flight engineer examiner applicant's performance with the flight engineer applicant will be held in private.

(A) At the conclusion of the skill test for the actual flight engineer license or added class rating or proficiency check:

(B) If the applicant has passed the skill test or proficiency check, the pilot examiner applicant will fill out the appropriate documentation for the flight engineer applicant while the Authority inspector observes. The Authority inspector will sign any documentation needed.

(2) If the flight engineer applicant does not pass the skill test or proficiency check, the Authority inspector will complete and sign the appropriate document needed.

(i) Authority inspector playing the role of flight engineer applicant for a skill test.

(ii) The Authority inspector will play the role of a flight engineer applicant for a skill test appropriate to the class of designation the flight engineer examiner applicant is seeking.

(iii) If the Authority inspector answers a question incorrectly to test whether the flight engineer examiner applicant recognizes an incorrect answer, the incorrect response must be obviously wrong.

(3) Authority inspector gives a flight skill test to the flight engineer examiner applicant.

(i) The Authority inspector will test the flight engineer examiner applicant on selected manoeuvres in order to assess the flight engineer examiner applicant's flight proficiency and ability to evaluate a flight engineer applicant in accordance with the appropriate skill test.

(ii) The Authority inspector will evaluate the flight engineer examiner applicant's plan of action for completeness and efficiency.

IS 2.5.4.2 Flight Navigator License: Skill Test and Proficiency Check

(a) The skill test and proficiency check for the flight navigator license 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) Star identification (pointer system);

(2) Use of star finder;

(3) Shots against pre-computed curve;

(4) 3-star fix or LOP of sun;

(5) Compensation and swinging of compass;

(6) Alignment of drift meter;

(7) Alignment of astro-compass or periscopic sextant;

(8) Interpretation of weather data;

(9) Preparation of flight plan;
(10) Computation of fuel load;
(11) Determination of PNR and equitime point;
(12) Preparation of cruise control chart;
(13) Use and interpretation of cruise control chart;
(14) Equipment check;
(15) Location of emergency equipment;
(16) Knowledge of emergency equipment;
(17) Use of flux-gate and gyrosyn compasses;
(18) Setting and altering course;
(19) Chart knowledge – sectional or WAC chart;
(20) Pilotage;
(21) Computer computation ability;
(22) Determine of track, ground speed, and wind by double drift;
(23) Determine of ground speed and wind by drift meter timing;
(24) Air plots;
(25) ETA's;
(26) Knowledge and use of radio facilities;
(27) Care in turning;
(28) Station identification;
(29) Use of manual loop;
(30) Evaluation of radio bearings;
(31) Correction and plotting of radio bearings;
(32) Diversion to alternate – computer compass heading, ETA, fuel remaining;
(33) Basic adjustments of Loran Receiver;
(34) Knowledge and use of Loran;
(35) Knowledge and use of consol method;
(36) Use of absolute altimeter;
(37) Determination of ":D" factor;
(38) Determination of drift by altimetry;
(39) Interpretation and application of altimeter data;
(40) Single LOP interpretation (radio, press)
(41) Single LOP approach;
(42) Use of astro-compass;
(43) Determination of compass deviation;

(44) Accuracy of celestial fixes;

(45) Selection of bodies for observation;

(46) Handling of routine reports;

(47) Log entries;

(48) Weather observations and interpretation in flight;

(49) Determination of wind from fixes;

(50) Estimates for letdown;

(51) Over-all speed;

(52) Over-all accuracy;

(53) Alertness;

(54) Co-ordination of navigation methods;

(55) Co-ordination of duties with time.

(b) The areas of operation may be accomplished as follows:

(1) Items 1 through 7 above may be accomplished on the ground.

(2) Items 8 through 54 may be accomplished in flight.

(3) Items 17, 22, 23, 33, 34, 35, 36, 37, 38, 39 may be completed by oral questioning when a lack of ground facilities or navigation equipment makes such procedures necessary.

IS 2.5.6.2 Skill Test for Designated Flight Navigator Examiner

(a) The skill test for initial designation and renewal of a flight navigator examiner 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 and class ratings.

(b) Methods of skill testing: The Authority inspector will choose one of the following methods to test a flight navigator examiner applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.

(1) Authority inspector evaluates the flight navigator examiner applicant testing an actual flight navigator applicant for a license or proficiency check.

(i) The Authority will arrange for the flight navigator examiner applicant to conduct a skill test for an actual flight navigator applicant for a license or proficiency check, and the Authority inspector will observe the test from within the aircraft or flight simulation training device as applicable.

(ii) The Authority inspector will evaluate the flight navigator examiner applicant's performance while the flight navigator examiner applicant evaluates the flight navigator license or proficiency check applicant.

(iii) Any discussion between the flight navigation examiner applicant and the Authority inspector concerning the flight navigator examiner applicant's performance with the flight navigator applicant will be held in private.

(iv) At the conclusion of the skill test for the actual flight navigator license or proficiency check:

(A) If the applicant has passed the skill test or proficiency check, 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 or proficiency check, the Authority inspector will complete and sign the appropriate document needed.

(2) Authority inspector playing the role of flight navigator applicant for a skill test.

(i) The Authority inspector will play the role of a flight navigator applicant for a skill test appropriate to the designation the flight navigator examiner applicant is seeking.

(ii) If the Authority inspector answers a question incorrectly to test whether the flight navigator examiner applicant recognizes an incorrect answer, the incorrect response must be obviously wrong.

(3) Authority inspector gives a flight skill test to the flight navigator examiner applicant.

(i) The Authority inspector will test the flight navigator examiner applicant on selected manoeuvres in order to assess the flight navigator examiner applicant's flight proficiency and ability to evaluate a flight navigator applicant in accordance with the appropriate skill test or proficiency check.

(ii) The Authority inspector will evaluate the flight navigator examiner applicant's plan of action for completeness and efficiency.

IS 2.6.2.7 Aircraft Maintenance Technician Skill Requirements

(a) Each applicant for an Aviation Maintenance Technician (AMT) license or rating shall pass a skill test containing both oral questioning and practical application of skill appropriate to the rating(s) sought. The tests cover the applicant's skill in performing the practical projects on the subjects covered by the written test for that rating. The applicant will be provided with appropriate facilities, tools, materials and airworthiness data.

(b) **AMT General.** The skill test for the AMT License shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Basic electricity.

(2) Aircraft drawings.

(3) Weight and balance.

(4) Fluid line and fittings

(5) Materials and processes.

(6) Ground operation and servicing.

(7) Cleaning and corrosion control

(8) Mathematics.

(9) Maintenance forms and records.

(10) Basic physics.

(11) Maintenance publications.

(12) Aircraft mechanic technician privileges and limitations.

(c) AMT Airframe Rating. The skill test for the airfraoperation:

(1) Wood structures.

(2) Aircraft covering.

(3) Aircraft finishes.

(4) Sheet metal and non-metallic structures.

(5) Welding.

(6) Assembly and rigging.

(7) Airframe inspection.

(8) Fuel systems.

(9) Aircraft landing gear systems.

(10) Hydraulic and pneumatic power systems.

(11) Cabin atmosphere control systems.

(12) Aircraft instrument systems.

(13) Communication and navigation systems.

(14) Aircraft fuel systems.

(15) Aircraft electrical systems.

(16) Position and warning systems.

(17) Ice and rain control systems.

(18) Fire protection systems.

(d) AMT Powerplant Rating. The skill test for the powerplant rating shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Reciprocating systems.

(2) Turbine engines.

(3) Engine inspection.

(4) Engine instrument systems.

(5) Engine fire protection systems.

(6) Engine electrical systems.

(7) Lubrication systems.

(8) Ignition and starting systems.

(9) Fuel metering.

(10) Engine fuel systems.

(11) Induction and engine airflow systems.

(12) Engine cooling systems.

(13) Engine exhaust and reverser systems.

(14) Propellers.

(15) Auxiliary power units.

(e) **AMT Avionics Rating.** The skill test for the avionics rating shall test the applicant's knowledge and performance in the basic workshop and maintenance practices in at least the following areas of operation:

(1) Avionics – electrical.

(2) Avionics – instrument.

(3) Avionics – auto flight.

(4) Avionics – radio.

(5) Avionics – navigation systems.

(6) Repair, maintenance and function testing of aircraft systems/components – avionics.

(7) Job/task documentation and control practices.

IS 2.8.3.2 Skill Test for the Flight Operations Officer Licence

(a) The skill test for the flight operations officer license 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 applicants' knowledge and performance of the following tasks—

(i) Air traffic control procedures.
(ii) Aerodrome, crew, and company procedures.

(3) In-flight procedures, including the applicants' 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 applicants' knowledge and performance of the following tasks—

(i) Air traffic control and air navigation procedures.

(5) Post flight procedures, including the applicants' knowledge and performance of the following tasks—

(i) Communication procedures and requirements.
(ii) Trip records.

(6) Abnormal and emergency procedures, including the applicants' knowledge and performance of the following tasks—

(i) Abnormal and emergency procedures.

IS 2.10.1.3 Senior Parachute Rigger Licence Skill Test

(a) The skill test for the senior parachute rigger license 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 2.10.1.4 Master Parachute Rigger Licence Skill Test

(a) The skill test for the master parachute rigger license 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 2.10.1.5 Type Ratings—Parachute Rigger License Skill Test

(a) The skill test for ratings or added ratings to a parachute rigger license 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 2.11.1.2 Aviation Medical Examiners

(a) Basic training in aviation medicine for AMEs 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 AMEs 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 2.11.1.7 Medical Certificate

(a) 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.

(14) Examiner/CAA staff signature.

(15) Examiner/CAA staff name (printed).

(16) Examiner's authorization number.

(17) Date of Examination and State of Examination.

DATED THIS 9th DAY OF APRIL 2016

SIGNED: 

RICHELIEU A. WILLIAMS
DIRECTOR GENERAL
LIBERIA CIVIL AVIATION AUTHORITY