

CIVIL AVIATION REGULATIONS

SURINAME

PART 2 – PERSONNEL LICENSING

VERSION 4.0

June 2006

AMENDMENTS

Location	Date	Amended by	Description
Contents page 2-ii	24 Oct 2006	CASAS	2.3.2.7 and 2.3.2.8 Numbering errors corrected
Contents page 2-iv	24 Oct 2006	CASAS	2.7.3.3 article deleted
2.3.1.5	24 Oct 2006	CASAS	"international commercial air transport operations" changed to "commercial air transport operations"
2.3.2.7 2.3.2.8	24 Oct 2006	CASAS	Article numbering errors corrected
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2.2.4.1 (d)	19 May 2009	CASAS	Paragraph (d) added
2.2.4.2 (a)(1)(ii)	19 May 2009	CASAS	"In the language of SURINAME and" deleted
2.2.4.2 (a)(1)(v)	19 May 2009	CASAS	"unless the foreign skill test is not older than 90 days" added
2.2.4.2 (b)(1)	19 May 2009	CASAS	Content added
2.2.4.2 (b)(2)	19 May 2009	CASAS	Content changed
2.2.4.2 (b)(3)	19 May 2009	CASAS	Content changed
2.2.2.2 (c)	1 Jan 2010	CASAS	ATC ratings amended
2.7.3.2 (a)(b)	1 Jan 2010	CASAS	ATC ratings amended

Note: Part 2, Version 4.0 has replaced Part 2, Version 3.0 in its entirety.

Introduction

Part 2 addresses the licensing of personnel. Article 32 of the Chicago Convention requires SURINAME 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. With the same process being extended to domestic operations, SURINAME 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 Regulations presents detailed requirements for the general rules of licensing and detailed requirements for the certification of airmen, pilots, non-pilot flight crewmembers, and airmen, such as mechanics, who are not flight crew. Part 2 also presents medical standards for the granting of licenses and certification, and for the administration of medical examinations. The licensing and medical standards are based upon ICAO Annex 1.

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2.1 GENERAL

2.1.1 Applicability

(a) *Part 2 prescribes:*

- (1) the requirements for issuing, renewal and re-issue of aviation personnel licences, ratings, authorisations and certificates;
- (2) the conditions under which those licences, ratings, authorisations and certificates are necessary; and
- (3) the privileges and limitations granted to the holders of those licences, ratings, authorisations and certificates.

2.1.2 Definitions

(a) *For the purpose of Part 2, the definitions in the Law, in Part 1 and the following definitions shall apply:*

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

Note: During the certification process, the State of Registry may issue a certificate of airworthiness designating an aircraft for single-pilot operation based upon the Type Certificate issued by the State of Design, but might also require that the same aircraft be operated by more than one pilot under certain conditions, such as use in air transportation. (See CARS Part 8, 8.4.1.1.)

- (3) **Airmanship.** The consistent use of good judgement and well-developed knowledges, skills and attitudes to accomplish flight objectives.
- (4) **Approved training.** Training conducted under special curricula and supervision approved by a Contracting State that, in the case of flight crew members, is conducted within a approved training organization.
- (5) **Approved training organization.** An organization approved by a Contracting State in accordance with the requirements of Annex 1 paragraph 1.2.8.2 and appendix 2 to perform flight crew training and operating under the supervision of that State.
- (6) **Calendar month.** A period of a month beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as January 1 through January 31 in the Gregorian calendar).
- (7) **Calendar year.** A period of a year beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as January 1 through December 31 in the Gregorian calendar).
- (8) **Complex aeroplane.** An aeroplane that has retractable landing gear, flaps, and a controllable pitch propeller; or in the case of a seaplane, flaps and a controllable pitch propeller.
- (9) **Conversion.** Conversion is the action taken by SURINAME in issuing its own licence on the basis of a licence issued by another Contracting State for use on aircraft registered in SURINAME.
- (10) **Credit.** Recognition of alternative means or prior qualifications.
- (11) **Cross country.** A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.
- (12) **Error.** An action or inaction by the flight crew that leads to deviations from organisational or flight crew intentions or expectations.

- (13) **Error management.** The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors, and mitigate the probability of errors or undesired aircraft state.
- (14) **Flight plan.** Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.
- (15) **Flight simulation training device.** Also known as synthetic flight trainer. Any one of the following three types of apparatus in which flight conditions are simulated on the ground:
- (i) *A flight simulator*, which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated.
 - (ii) *A flight procedures trainer*, which provides a realistic flight deck environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;
 - (iii) *A basic instrument flight trainer*, which is equipped with appropriate instruments and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.
- (16) **High performance aeroplane.** An Aeroplane with an engine of more than 200 horsepower.
- (17) **Human performance.** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.
- (18) **Instrument flight time.** Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.
- (19) **Instrument ground time.** Time during which a pilot is practising, on the ground, simulated instrument flight in a synthetic flight trainer approved by the Licensing Authority
- (20) **Instrument time.** Instrument flight time or instrument ground time.
- (21) **Licensing Authority.** The CASAS is designated by Suriname as responsible for the licensing of personnel.
- (22) **Likely.** In the context of the medical provisions in chapter 6, likely means with a probability of occurring that is unacceptable to the Medical Assessor.
- (23) **Medical Assessment.** The evidence is issued by a Contracting State that the licence holder meets specific requirements of medical fitness.
- (24) **Medical Assessor.** A physician qualified and experienced in the practise of aviation medicine who evaluates medical reports submitted to the Licensing Authority by medical examiners.
- (25) **Medical Examiner.** A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who designated by the Licensing Authority to conduct medical examinations of fitness of applicants for licenses or ratings for which medical requirements are prescribed.
- (26) **Medical certificate.** The evidence issued by the CASAS that the licence holder meets specific requirements of medical fitness. It is issued following an evaluation by the Licensing Authority of the report submitted by the designated medical examiner who conducted the examination of the applicant for the licence.
- (27) **Pilot (to).** To manipulate the flight controls of an aircraft during flight time.
- (28) **Pilot-in-command under supervision.** Co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is acceptable to the Licensing Authority.
- (29) **Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in a way that:
- (i) Constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or
 - (ii) Causes or worsens an occupational, social, mental or physical problem or disorder.

- (30) **Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.
- (31) **Rated air traffic controller.** An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.
- (32) **Renewal of licence, rating, authorisation or certificate.** The administrative action taken within the period of validity of a licence, rating, authorisation or certificate that allows the holder to continue to exercise the privileges of a licence, rating, authorisation or certificate for a further specified period consequent upon the fulfilment of specified requirements.
- (33) **Re-issue of a licence, rating, authorisation or certificate.** The administrative action taken after a licence, rating, authorisation or certificate has lapsed that re-issues the privileges of the licence, rating, authorisation or certificate for a further specified period consequent upon the fulfilment of specified requirements.
- (34) **Route sector.** A flight comprising take off, departure, cruise of not less than 15 minutes, arrival, approach and landing phases.
- (35) **Synthetic flight trainer.** Also known as flight simulation training device. Any one of the following three types of apparatus in which flight conditions are simulated on the ground:
- (i) *A flight simulator*, which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated.
 - (ii) *A flight procedures trainer*, which provides a realistic flight deck environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;
 - (iii) *A basic instrument flight trainer*, which is equipped with appropriate instruments and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.
- (36) **Threat.** Events or errors that occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.
- (37) **Undesired aircraft state.** Occurs when the flight crew places the aircraft in a situation of unnecessary risk.
- (38) **Validation.** The action taken by SURINAME as an alternative to issuing its own licence, in accepting a licence issued by another Contracting State as the equivalent of its own licence for use on aircraft registered in SURINAME.

2.1.3 Abbreviations

- (a) *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 Licence;
 - (8) B - Balloon
 - (9) CAT II/III – Category II and Category III;
 - (10) CPL – Commercial Pilot Licence;
 - (11) CRM – Crew Resource Management;
 - (12) DFEE – Designated Flight Engineer Examiner;

- (13) DFNE – Designated Flight Navigator Examiner;
- (14) DFOOE - Designated Flight Operations Officer Examiner;
- (15) DME – Designated Mechanic Examiner;
- (16) DPE – Designated Pilot Examiner;
- (17) DPRE – Designated Parachute Rigger Examiner;
- (18) FE – Flight Engineer;
- (19) FI – Flight Instructor;
- (20) G – Glider;
- (21) IA – Inspection Authorisation;
- (22) IFR – Instrument Flight Rules;
- (23) ILS – Instrument Landing System;
- (24) H – Helicopter;
- (25) ICAO – International Civil Aviation Organisation;
- (26) MPA – Multi-pilot Aeroplane;
- (27) MPH – Multi-pilot Helicopter;
- (28) NOTAM – Notice to airmen;
- (29) PIC – Pilot-in-Command;
- (30) PL – Powered-lift
- (31) PPL – Private Pilot Licence;
- (32) RT – Radiotelephony;
- (33) SPA – Single-pilot Aeroplane;
- (34) SPH – Single-pilot Helicopter;
- (35) VFR – Visual Flight Rules.

2.2 GENERAL LICENSING REQUIREMENTS

2.2.1 GENERAL

- (a) The Authority will issue, renew or re-issue a licence, rating, authorisation, designation and/or certificate when the applicant complies with the requirements of Part 2 and the procedures in IS: 2.2.1.
- (b) Privileges. The holder of a licence, certificate, authorisation or designation shall not exercise privileges other than those granted by the licence, certificate, authorisation or designation.
- (c) Medical fitness. Applicants for the following licences and authorisations shall hold a medical certificate issued under this part:
 - (1) Student pilot authorisation;
 - (2) pilot licence,
 - (3) flight engineer licence;
 - (4) flight navigator licence;
 - (5) flight instructor licence;
 - (6) designated pilot examiner;
 - (7) designated flight engineer examiner;
 - (8) designated flight navigator examiner; or
 - (9) air traffic controller licence,

2.2.2 LICENCES, RATINGS, AUTHORISATIONS AND CERTIFICATES

2.2.2.1 LICENCES

- (a) The Authority may issue the following licences under this Part to an applicant who satisfactorily accomplishes the requirements in this Part for the licence sought:
 - (1) Pilot licences:
 - (i) Private pilot licence – aeroplane, helicopter, airship, powered-lift, balloon or glider categories;
 - (ii) Commercial pilot licence - aeroplane, helicopter, airship, powered-lift, balloon or glider categories;
 - (iii) Airline Transport pilot licence – aeroplane, helicopter or powered-lift categories;
 - (2) Flight engineer licence;
 - (3) Flight navigator licence;
 - (4) Flight operations officer licence;
 - (5) Flight instructor licence;
 - (6) Ground instructor licence;
 - (7) Aircraft maintenance technician licence;
 - (8) Parachute rigger licence;
 - (9) Air traffic controller licence;
 - (10) Aeronautical station operator licence.

Note: Flight radiotelephone operator

1. 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 licence already held by the applicant or issue a separate licence as appropriate.

2. Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all pilot aeroplane and helicopter licences.

2.2.2.2. RATINGS

- (a) The Authority may issue the following ratings to place on a pilot licence or flight instructor licence when an applicant satisfactorily accomplishes the requirements 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.

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.

- (3) Type ratings in the following aircraft:
 - (i) Each type of aircraft certificated for operation with a minimum crew of at least two pilots;
 - (ii) Each type of helicopter certificated for single-pilot except where a class rating has been established under (a)(2)(v)
 - (iii) Any aircraft considered necessary by the CASAS

Note: A type rating for High Performance Aeroplanes (HPA) requires additional knowledge, if the applicant has not completed the ATPL(A) knowledge requirements

- (4) Instrument ratings in the following aircraft:
 - (i) Instrument – Aeroplane
 - (ii) Instrument – Helicopter
 - (iii) Instrument – Powered-lift

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

- (b) The Authority may issue the following ratings to place on a flight engineer's licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
- (1) Reciprocating engine powered;
 - (2) Turbopropeller powered; and
 - (3) Turbojet powered.
- (c) The Authority may issue the following ratings to place on an air traffic controller licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
- (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; and
 - (6) Area control surveillance rating.
- (d) The Authority may issue the following ratings to place on an aircraft maintenance technician licence 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 the following ratings to place on a parachute rigger's licence when an applicant satisfactorily accomplished the requirements of this Part for the rating sought:
- (1) Seat;
 - (2) Back;
 - (3) Chest;
 - (4) Lap.
- (f) The Authority may issue the following ratings to place on a ground instructor's licence when an applicant satisfactorily accomplished the requirements of this Part for the rating sought:
- (1) Basic;
 - (2) Advanced;
 - (3) Instrument.

2.2.2.3 AUTHORISATIONS

- (a) The Authority may issue the following authorisations when an applicant satisfactorily accomplishes the requirements in this Part for the authorisation sought:
- (1) Student pilot authorisation;
 - (2) Instructor authorisation for synthetic flight training.
- (b) The Authority may issue the following authorisations to place on a pilot licence when an applicant satisfactorily accomplishes the requirements in this Part for the authorisation sought:
- (1) Category II pilot authorisation;
 - (2) Category III pilot authorisation;

2.2.2.4 ENDORSEMENTS

- (a) A pilot may receive the following endorsements from an authorised 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;

2.2.2.5 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, ATPL, Flight engineer and Flight navigator licence; flight instructor licences and DPEs;
 - (2) Medical certificate Class 2 for PPL and student pilot authorisation;
 - (3) Medical certificate Class 3 for Air traffic controller licence.
- (b) The Authority may issue the following certificate to pilots, flight engineers, aircraft maintenance technicians and *flight operations officers* holding a licence from another ICAO Contracting State.

- (1) Validation certificates.
- (c) The Authority may issue certificates of designation to representatives of the Director CASAS as identified in 2.2.2.6 below.

2.2.2.6 DESIGNATION OF REPRESENTATIVES OF THE DIRECTOR CASAS

- (a) The Authority may issue the following designations to private persons to act on behalf of the Director CASAS, as specified in this Part:
 - (1) Designated Pilot Examiner;
 - (2) Designated Flight Engineer Examiner;
 - (3) Designated Flight Navigator Examiner;
 - (4) Designated Flight Operations Officer Examiner;
 - (5) Designated Mechanic Examiner;
 - (6) Designated Parachute Rigger Examiner;
 - (7) Aviation Medical Examiner; or
 - (8) Other designees as may be determined by the Authority.

2.2.3 VALIDITY OF LICENCES, RATINGS, AUTHORISATIONS AND CERTIFICATES

- (a) The privileges granted by a licence, or by related ratings, may not be exercised unless the holder maintains competency and meets the requirements for recent experience of this Part.
- (b) Maintenance of competency shall be indicated in the airman's personal record (e.g. logbook).
- (c) The maintenance of competency of flight crew members, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Part 8.
- (d) The validity period of a licence is subject to the compliance with the requirements specified in this Part.
- (e) Renewal of a licence will take place after initial issue or renewal of a rating provided the ratings related to the licence and the medical certificate are valid.
- (f) The validity period of the ratings, authorisations, certificates of validation and medical certificates and the renewal/re-issue conditions are indicated in the relevant Subparts of Part 2.

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

2.2.4.1 VALIDATION OF FLIGHT CREW LICENCES

- (a) General requirements for validation.
 - (1) A person who holds a current and valid pilot licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for a validation of such licence for use on aircraft registered in SURINAME.
 - (2) The applicant for the validation certificate shall present to the CASAS the foreign licence and evidence of the experience required by presenting the record (e.g. logbook).
 - (3) The applicant for the validation certificate shall present to the CASAS 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 licence.
 - (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 licence held.

- (4) The applicant for the validation certificate shall present to the CASAS evidence of language proficiency in the English language as specified in 2.2.7 or shall demonstrate to the CASAS the language proficiency skills as specified in 2.2.7.
 - (5) CASAS will verify the authenticity of the licence, ratings authorisations and the medical certificate with the state of licence issue prior to issuing the validation.
 - (6) The CASAS will only validate ratings or authorisations on the foreign licence together with the validation of a licence
 - (7) The CASAS may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings or authorisations 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 licence with at least PPL privileges.
- (c) Validation certificate with PPL/IR, CPL, CPL/IR, 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, ATPL or FE privileges, shall have the relevant foreign licence and meet the following requirements:
- (1) The applicant for the validation certificate shall demonstrate to the satisfaction of the CASAS the knowledge relevant to the licence to be validated of:
 - (i) Air Law;
 - (ii) Aeronautical Weather codes;
 - (iii) Flight Performance and Planning; and
 - (iv) Human Performance;
 - (2) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that he or she wants to be validated relevant to the privileges of the licence held; The skill test requirement may be waived if within the previous 90 (ninety) days the applicant successfully completed a skill test for the grant or renewal of the foreign license for which a Surinamese validation is being applied for.
 - (3) comply with the experience requirements set out in the table below:

Licence	Experience	Validation privileges
ATPL(A)	> 750 hours as PIC in multi-pilot * certificated aeroplanes	Commercial air transport in multi-pilot aeroplanes as PIC
ATPL(PL)	> 750 hours as PIC in multi-pilot certificated powered-lift or 750 hours in multi-pilot operations in a combination of powered-lift; aeroplane and helicopter aircraft as acceptable to the CASAS	Commercial air transport in multi-pilot powered-lift as PIC
ATPL(H)	> 500 hours as PIC on multi-pilot helicopters	Commercial air transport multi-pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	> 250 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	> 250 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	> 250 hours as PIC or co-pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot
CPL(A)/IR	> 500 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot aeroplanes as PIC
CPL(H)/IR	> 500hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot helicopters as PIC
CPL(A)	> 350 hours in aeroplanes other than gliders, including 100hours in the activity role for which validation is sought, and 25 hours in that role in the last 12 months	Activities in aeroplanes other than commercial air transport
CPL(H)	> 350 hours in helicopters including 100 hours in the activity role for which validation is sought, and 25 hours in that role in the last 12 months	Activities in helicopters other than commercial air transport

CPL(PL)	> 350 hours in powered-lift (or combination of powered-lift, aeroplane and helicopter as acceptable to the CASAS) including 100 hours in the activity role for which validation is sought, and 25 hours in that role in the last 12 months	Activities in powered-lift other than commercial air transport
CPL(AS)	> 125 hours as PIC in commercial air transport	Commercial air transport in airships as PIC under IR and VFR conditions
CPL(B)	> 125 hours as PIC in commercial air transport	Commercial air transport in balloons as PIC
CPL(G)	> 125 hours as PIC in commercial air transport	Commercial air transport in gliders as PIC
PPL(A)/IR	> 50 hours PIC instrument flight time	Private flights under IFR
PPL(H)/IR	> 50 hours PIC instrument flight time	Private flights under IFR
PPL(PL)/IR	> 50 hours PIC instrument flight time	Private flights under IFR
Flight engineer	> 750 hours as flight engineer on aeroplanes in commercial air transport	Commercial air transport in aeroplanes as flight engineer
Flight engineer	> 500 hours as flight engineer on aeroplanes in other than commercial air transport	Other than commercial air transport in aeroplanes as flight engineer

**Note: 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: 2.5.1.5.).*

> = greater than

- (d) Holders of Surinamese licenses need not comply with the requirements of this article when applying for conversion of foreign licenses containing privileges other than those included on the Surinamese License.

2.2.4.2 CONVERSION OF FLIGHT CREW LICENCES

- (a) Conversion of a foreign pilot licence for issuance of a PPL by SURINAME. A person who holds a current and valid pilot licence with at least PPL privileges issued by another Contracting State in accordance with ICAO Annex 1, may apply for a conversion and be issued with a PPL for use on aircraft registered in SURINAME provided the following requirements are met.
- (1) The holder shall:
 - (i) present to the CASAS the foreign licence, evidence of experience required by presenting the record (e.g. logbook) and current medical certificate;
 - (ii) present to the CASAS evidence of language proficiency in English as specified in 2.2.7 or shall demonstrate to the CASAS the language proficiency skills as specified in 2.2.7;
 - (iii) obtain a Class 2 medical certificate issued under this Part;
 - (iv) demonstrate to the satisfaction of the CASAS the knowledge of Air Law; and
 - (v) complete a PPL skill test, unless the foreign skill test is not older than 90 days.
 - (2) The CASAS will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the state of licence issue prior to converting the licence.
- (b) Conversion of PPL/IR, CPL, CPL/IR, ATPL and Flight Engineer licences, which have been validated in accordance with paragraph 2.2.4.1. The holder of a current and valid foreign PPL/IR, CPL, CPL/IR, ATPL or Flight Engineer licence issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by SURINAME provided the following requirements are met:
- (1) The applicant is the holder of a current validation certificate issued under 2.2.4.1 or holder of a Surinamese flight crew license and or ratings of another type than for the privileges sought;
 - (2) The applicant has completed 100 flight hours in a SURINAME registered aircraft which are operated by an operator established in SURINAME exercising the privileges granted by the validation certificate, unless the applicant is also holder of a Surinamese flight crew license and or ratings of another type than for the privileges sought.

- (3) The applicant for the conversion shall present to the CASAS the foreign licence and evidence of the 100 flight hours by presenting the record (e.g. logbook) (if applicable) ; and
- (4) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.
- (5) Ratings listed on a person's foreign pilot licence that have been validated in accordance with paragraph 2.2.4.1, may be placed on that person's converted licence.

2.2.4.3 VALIDATION AND CONVERSION OF LICENCES OR CERTIFICATES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

- (a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2 the CASAS may issue a validation certificate or a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:
 - (1) the licence or certificate is issued by another ICAO Contracting State;
 - (2) the CASAS is convinced that the licence or certificate has been issued on the basis of at least Part 2; and
 - (3) there is an agreement between the CASAS and the other Contracting State about recognition of licences and, if applicable, keeping the licences and ratings current and valid.
- (b) The applicant for the validation certificate or conversion shall present to the CASAS the foreign licence or certificate and evidence of the currency of the licence by presenting the record (e.g. logbook).
- (c) The applicant shall hold a medical certificate relevant to the licence or certificate to be converted or validated, provided that the foreign medical certificate meets the requirements of Part 2, which medical certificate shall be issued under Part 2, medical requirements.
- (d) If applicable, the applicant shall pass a knowledge test on Air Law of SURINAME.
- (e) The IS: 2.2.4.3 contains procedures for validation or conversion of flight crew licences by reliance upon the licensing system of another ICAO Contracting State.

Note: See ICAO Document 9379 for procedures related to validation or conversion.

Implementing Standard: See IS 2.2.4.3 Appendix A, B and C for procedures for validation or conversion of flight crew licences.

2.2.4.4 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 SURINAME 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 licences of the flight crew of the other Contracting State may be validated, provided that the privileges of the flight crew licence validation are restricted for use during the lease, charter or interchange period only on nominated aircraft in specified operations not involving a SURINAMESE operator, directly or indirectly through a wet lease or other commercial arrangement.

Note: See ICAO Document 9379 for procedures related to validation.

2.2.4.5 TEMPORARY VALIDATION OF NON-SURINAME PILOT LICENCES HELD BY MANUFACTURER TEST PILOTS

- (a) In circumstances where validation of a non-SURINAME pilot licence is needed to fulfil specific tasks of finite duration, the Authority may issue a temporary validation of such a licence for those tasks as described in this paragraph.
- (b) Notwithstanding the requirements contained in Sections 2.2.4.1, 2.2.4.2, 2.2.4.3 or 2.2.4.4, the Authority may temporarily validate a licence issued by another ICAO Contracting State in accordance with the provisions of ICAO Annex 1, including an instructor rating or examiner authorisation issued by that State, provided that the holder of the licence shall:
 - (1) Possess an appropriate licence, medical certificate, type ratings and qualifications, to include instructor or examiner qualifications, valid in the State of licence issue for the duties proposed;
 - (2) Be employed by an aircraft manufacturer or Approved Training Organisation located outside SURINAME performing training on behalf of an aircraft manufacturer; and
 - (3) 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 SURINAME, 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) SURINAME will verify the authenticity of the licence, ratings, authorisations and medical certificate with the State of licence issue prior to issuing the temporary validation.
- (e) The duration of the temporary validation shall be for one year.

2.2.4.6 VALIDATION AND CONVERSION OF FLIGHT OPERATIONS OFFICER LICENCES

A person who holds a current and valid Flight Operations Officer licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for validation or conversion of that license by Suriname.

- (a) A certificate of validation for a Flight Operations Officer Licence may be issued provided the following requirements are met.
 - (1) The holder shall:
 - (i) present to the CASAS the foreign licence including evidence of experience required by CARS 2.8.3(d) and validity requirements of CARS 2.8.3(g) ;
 - (ii) complete a Validation Knowledge Test; and
 - (iii) complete a Flight Operations Officer Licence skill test unless the foreign skill test is not older than 90 days.
 - (2) The CASAS will verify the authenticity of the licence, ratings and authorisations with the state of licence issue prior to validating the licence.
 - (3) The period of validity of the certificate of validation issued by Suriname, shall not exceed that of the foreign licence which is being validated or 1 (one) year whichever is the lesser.
- (b) If a holder of a certificate of validation wishes to continue to exercise the privileges granted by that certificate after its expiration, he/she shall apply to the CASAS for a conversion of his foreign license into a Surinamese Flight Operations Officers license prior to the expiration of his/her validation certificate. All requirements for the issue of the Surinamese license shall then be met by the applicant.

2.2.4.7 VALIDATION AND CONVERSION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

A person who holds a current and valid Aircraft Maintenance Technician Licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for validation or conversion of that licence by Suriname.

- (a) A certificate of validation for an Aircraft Maintenance Technician Licence may be issued provided the following requirements are met.
 - (1) The holder shall:
 - (i) present to the CASAS the foreign licence including evidence of experience as required by CARS 2.6.2.6 and the recent experience requirements as noted in CARS 2.6.2.10 ;
 - (ii) complete a Validation Knowledge Test; and
 - (iii) complete an Aircraft Maintenance Technician Licence skill test unless the foreign skill test is not older than 90 days.
 - (2) The CASAS will verify the authenticity of the licence, ratings and authorisations with the state of licence issue prior to validating the licence.
 - (3) The period of the validity of the certificate of validation issued by Suriname, shall not exceed that of the foreign licence which is being validated or 1 (one) year whichever is the lesser.
- (b) If a holder of a certificate of validation wishes to continue to exercise the privileges granted by that certificate on aircraft registered in Suriname after its expiration, he/she shall apply to the CASAS for a conversion of his foreign license into a Surinamese Aircraft Maintenance Technician's license prior to the expiration of his/her validation certificate. All requirements for the issue of the Surinamese license shall then be met by the applicant.

2.2.5 CREDIT FOR MILITARY COMPETENCY

2.2.5.1 CREDIT FOR MILITARY PILOTS

Pilot licences. 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 2.2.5.1 may apply, on the basis of his or her military training, for:

- (a) a CPL;
- (b) a rating in the category and class of aircraft for which that military pilot is qualified;

- (c) an instrument rating with the appropriate category rating for which that military pilot is qualified; and
- (d) a type rating, if appropriate.

2.2.6 TRAINING AND TESTING REQUIREMENTS

2.2.6.1 DOCUMENTATION OF TRAINING AND AERONAUTICAL EXPERIENCE

- (a) Each person shall document and record the following in a manner acceptable to the CASAS:
 - (1) training and/or experience used to meet the requirements for a licence, rating and authorisation of Part 2; and
 - (2) the experience required to show the maintaining of recency of aeronautical experience according to the requirements of Part 2.

2.2.6.2 TRAINING CONDUCTED IN AN APPROVED TRAINING ORGANISATION

- (a) The Authority may provide for some reduction in the experience requirements for the issue of certain licences and ratings prescribed in this Part when training is conducted within an Approved Training Organisation under special curricula approved by the Authority under Part 3.
- (b) The Authority shall insure that approved training shall provide a level of competency at least equal to that provided by the minimum experience requirements for personnel not receiving such approved training through the certification of Approved Training Organisations and by approval of curricula to be taught by Approved Training Organisations as contained in Part 3.
- (c) Part 3 prescribes the requirements for certifying and administering Approved Training Organisations for conducting approved training.

Note: See ICAO Document 7192 Part B-5 and 9379 for details on training

2.2.6.3 USE OF FLIGHT SIMULATION TRAINING DEVICES (SYNTHETIC FLIGHT TRAINERS)

- (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, in accordance with the requirements in IS: 2.2.6.3, for—
 - (1) The training, testing, and checking for which it is used;
 - (2) Each particular manoeuvre, procedure, or crewmember function performed; and
 - (3) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.
- (b) The Authority may approve a device other than a flight simulation training device for specific purposes.

Note: See the Manual of Criteria for the Qualification of Flight Simulators (ICAO Doc 9625).

The use of a synthetic flight trainer for performing training, testing and checking for which a flight crew member is to receive credit, shall be approved by the CASAS, which shall ensure that the synthetic flight trainer is appropriate to the task.

2.2.6.4 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 and places, and by persons authorised and designated by the CASAS.
- (b) The knowledge test will be performed in written or computer format, except for the knowledge test for an instructor rating 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.

2.2.6.5 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 licence, rating or authorisation to show that the applicant has met the training and/or experience requirements to take the knowledge or skill test.

Note: The endorsement requirements may differ between licences and will appear in each licence section as applicable.

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

- (c) An applicant 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 licence sought before the expiration date of the airman knowledge test report; and
 - (4) Actual residential address, if different from the applicant's mailing address.
- (d) The CASAS will specify the minimum passing grades.
- (e) An applicant shall, before attempting the skill test for a licence or rating:
 - (1) Have passed the required knowledge test within the 24 calendar-month period preceding the month the applicant successfully completes the skill test; or
 - (2) if an applicant for an ATPL, have passed the ATP knowledge test within a period of 7 years before successfully completing the ATP skill test, provided that the applicant is, and has been continuously, employed as a flight crew member by a certificate holder under Part 9 at the time of the ATP skill test.
- (f) 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:
 - (i) The necessary training from an authorised instructor who has determined that the applicant is proficient to pass the test; and
 - (ii) An endorsement from an authorised instructor who gave the applicant the additional training.
 - (2) An applicant for a flight instructor licence with an aeroplane category rating or, for a flight instructor licence 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—
 - (i) Comply with the requirements of paragraph (f)(1) of this subsection before being retested;
 - (ii) Bring an aircraft to the retest that is of the appropriate aircraft category for the rating sought and is certified for spins; and
 - (iii) Demonstrate satisfactory instructional proficiency on stall awareness, spin entry, spins, and spin recovery to an examiner during the retest.

2.2.6.6 RELIANCE ON TRAINING AND TESTING IN ANOTHER CONTRACTING STATE

- (a) The CASAS may rely on the training and/or testing system administered by another Contracting State as the basis for its own written or skill test requirement for airman licences provided that the CASAS 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 CASAS prior to receiving training and/or testing in a system administered by another Contracting State.

2.2.7 LANGUAGE PROFICIENCY

- (a) Pilots, flight engineers, flight navigators, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the English language used for radio telephony communications in SURINAME .
- (b) The airmen identified in item (a) above shall demonstrate the ability to speak and understand the English language used for radiotelephony communications in SURINAME to at least the Operational Level (Level 4) with the aim to speak at the Expert Level (Level 6) as specified in the language proficiency requirements in IS: 2.2.7.
- (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.

Implementing Standard: See IS 2.2.7 for 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.

2.2.8 DESIGNATED EXAMINERS

- (a) The CASAS may designate private individuals to act as representatives of the Director CASAS in examining, inspecting, and testing persons and aircraft for the purpose of issuing airmen and aircraft licences, 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.

2.2.9 FORMAT OF THE LICENCE

- (a) The licence format shall be in a form and manner prescribed by the CASAS.
- (b) The items required on the licence are indicated in IS 2.2.9.
- (c) The licence shall be issued in the English language.

2.2.10 SUSPENSION OR REVOCATION OF A LICENCE, RATING, AUTHORISATION OR CERTIFICATE.

Note: See also Part 1.2.1.7.

2.2.10.1 SUSPENSION OF A LICENCE, RATING AUTHORISATION OR VALIDATION CERTIFICATE

If, in accordance with the ACT and applicable regulations the CASAS determines that the interests of safety require that a license, rating, authorisation or certificate must be suspended, the CASAS may act as follows:

- (a) If the CASAS discovers facts indicating either a lack of competency or lack of qualification, the CASAS may, require an applicant for or the holder of any license, rating, authorisation, or validation certificate to retake all or part of the knowledge or practical tests required for any license, rating, authorisation, or validation certificate at issue, renewal or re-issue. The CASAS may suspend the validity of any such license, rating, authorisation and/or validation certificate pending the results of such re-testing.
- (b) A person whose license, rating, authorisation, or certificate has been amended, modified, suspended, or revoked shall be provided with notice and an opportunity to be heard in accordance with 1.2.1.7.3.
- © After notifying the person involved, in writing, stating the reasons for such action, the CASAS may also suspend the validity of any license, rating, authorisation and/or validation certificate in the following cases:
 - (i) during the investigation of an aircraft disaster or incident;
 - (ii) in cases of proven misconduct, recklessness or excessive carelessness;
 - (iii) if the holder has acted in contradiction to 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 effected.
- (d) Once the suspension is effective, the person involved shall immediately cease exercising the privileges of the affected license, certificate, rating, or authorisation. The person involved shall

surrender to the CASAS 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 CASAS may revoke all such certificate(s) held by that person.

- (e) When a suspension is limited to one or more ratings mentioned on the license or validation certificate, the CASAS shall provide the person involved with a new license or validation certificate omitting all ratings which are subject to the suspension.
- (f) The CASAS 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 authorisation at issue indicated in (a);
 - (ii) if the person involved has gained the required additional experience; or
 - (iii) by revocation of the license, rating, authorisation and/or validation certificate.
- (g) Once the suspension has been cancelled, other than by revocation, the CASAS shall issue the person involved a new license or validation certificate.

2.2.10.2 SUSPENSION OF A MEDICAL CERTIFICATE

- (a) In case of doubt concerning the medical fitness of the holder of a medical certificate the CASAS may determine that the person involved shall again repeat a complete or partial medical examination, and may suspend the validity of that medical certificate until the repeat examination is completed with favourable results.
- (b) The 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 CASAS 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 CASAS 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.

2.2.10.3 REVOCATION OF LICENCES, RATINGS AUTHORISATIONS OR CERTIFICATES

- (a) A licence, rating, authorisation or certificate shall be revoked if the holder has lost the skills for exercising the privileges mentioned in the document or fails to meet the appropriate medical standards as shown by the results of a medical examination or a test.
- (b) A licence, rating, authorisation and/or certificate may be revoked if the holder has made a statement contrary to the truth in obtaining or maintaining that licence, rating authorisation or certificate, or has provided incorrect data at a medical examination and/or test required for the issue, maintenance or renewal of the licence, rating, authorisation and certificate.
- (c) A licence, rating, authorisation or certificate shall be revoked in case of proven misconduct, recklessness or excessive carelessness. The holder of the licence will be notified in writing of the revocation with the reasons therefore.
- (d) A person who has had a licence or certificate revoked shall be obliged to hand over to the CASAS all the licences or certificates in his or her possession applicable to the revocation within 8 days after the date of receiving notification from the CASAS.
- (e) The person who has been denied the privilege to manipulate the controls of an aircraft by judgement of a court, shall be equally obliged to hand over to the CASAS all licences and certificates in his or her possession within 8 days after he or she has taken cognisance of the judgement or after it can be reasonably assumed that he or she has taken cognisance 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 licences, ratings and authorisations.

2.3.1.2 GENERAL RULE CONCERNING LICENCES, RATINGS AND AUTHORISATIONS

- (a) An applicant shall, before being issued with any licence, rating, authorisation or designation, meet such requirements in respect of age, knowledge, experience, flight instruction, skill, medical fitness and language proficiency as are specified for that licence, rating or authorisation.
- (b) A person shall not act either as pilot-in-command or as co-pilot of an aircraft in any of the categories unless that person is the holder of a pilot licence issued in accordance with the provisions of Part 2.
- (c) An applicant shall for renewal or re-issue of a licence, rating, authorisation or designation, meet the requirements as are specified for that licence, rating, authorisation or designation.

2.3.1.3 AUTHORITY TO ACT AS A FLIGHT CREW MEMBER

- (a) A person shall not act as a pilot flight crew member of an aircraft registered in SURINAME unless a valid licence 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.

Note: During a skill test, the applicant acts as PIC but the safety pilot will intervene in safety situations.

2.3.1.4 CREDITING OF FLIGHT TIME

- (a) A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction and pilot-in-command flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.
- (b) The holder of a pilot licence, when acting as co-pilot of an aircraft required 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 licence.
- (c) The holder of a pilot licence, when acting as co-pilot performing under the supervision of the pilot-in-command the functions and duties of a pilot-in-command, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

2.3.1.5 LIMITATION OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF PILOTS WHO HAVE ATTAINED THEIR 65TH BIRTHDAY

- (a) No person who holds a pilot licence issued under this Part shall serve in single pilot operations on a civil aircraft of Surinamese 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 Surinamese 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.

2.3.1.6 RECENT EXPERIENCE REQUIREMENTS

- (a) A pilot shall not operate an aircraft carrying passengers as pilot-in-command unless he or she has carried out at least three take-offs and three landings as pilot-flying in an aircraft of the same type/class to be used, in the preceding 90 days.
- (b) A pilot shall not operate an aircraft carrying passengers as co-pilot unless he or she has carried out at least three take-offs and three landings as pilot-flying in an aircraft of the same type/class or a flight simulator of the aircraft type/class to be used, in the preceding 90 days.
- (c) The holder of a licence that does not include an instrument rating shall not act as pilot-in-command of an aircraft carrying passengers at night unless he or she has carried out at least three take-offs and three landings at night during the previous 90 days.
- (d) Each person shall document and record the experience required to show recent flight experience.

2.3.1.7 RECORDING OF FLIGHT TIME

- (a) Each person shall document and record the following time in a manner acceptable to the CASAS as outlined in IS: 2.3.1.7:
 - (1) training and experience used to meet the requirements for a licence, rating and authorisation of Part 2; and
 - (2) 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 licence shall not be permitted to act as pilot-in-command or as co-pilot of an aircraft unless the holder has received authorisation as follows:
 - (1) the appropriate class rating specified in this Part;
 - (2) a type rating when required in accordance with this Part;
 - (3) an authorisation when required in accordance with this Part; or
 - (4) An endorsement when required in accordance with this Part.
- (b) The applicant shall meet the appropriate requirements of this Part for the aircraft rating, authorisation or endorsement sought.
- (c) When an applicant demonstrates skill and knowledge for the initial issue or re-issue of a pilot licence, the category and ratings appropriate to the class or type of aircraft used in the demonstration will be entered on the licence.
- (d) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorisation may be provided in writing to the licence holder by the CASAS in place of issuing the class or type rating in accordance with (a). This authorisation shall be limited in validity to the time needed to complete the specific flight.
- (e) 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 a flight, such limitation shall be endorsed on the rating.

2.3.2.2 CATEGORY RATINGS

- (a) The category of aircraft shall be endorsed on the licence as a rating.

- (b) Initial category rating.
- (1) An applicant for a pilot's licence, after successfully meeting all requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category, and if applicable, class or type rating endorsed on the licence.
- (c) Additional category ratings.
- (1) Any additional category rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the category rating is granted.
 - (2) The holder of a pilot licence seeking an additional category rating shall:
 - (i) meet the requirements of this Part appropriate to the privileges for which the category rating is sought;
 - (ii) have an endorsement in his/her logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
 - (iii) pass the required knowledge test unless the applicant holds an aeroplane, helicopter, powered-lift or airship category rating and is seeking an additional category rating from among those categories, at the same level of pilot licence at either the private or commercial levels; 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 licence, 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 licence as a rating.
- (b) Initial class rating.
- (1) An applicant for a pilot's licence, after successfully meeting all requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category, class, and if applicable, type rating endorsed on the licence.
- (c) Additional class ratings.
- (1) Any additional class rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the class rating is granted.
 - (2) The holder of a pilot licence seeking an additional class rating shall:
 - (i) meet the requirements of this Part appropriate to the privileges for which the class rating is sought;
 - (ii) have an endorsement in his/her logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
 - (iii) pass the required knowledge test unless the applicant holds a class rating within the same category of aircraft, at the same level of pilot licence at either the private or commercial levels; and
 - (iv) Pass the required skill test for the aircraft class rating being sought.
- (d) Privileges. Subject to compliance with the requirements specified in 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.**
- (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 licence, category and class rating; or
 - (ii) have completed 12 hours flight time within the 12 months preceding the expiry date if the pilot also holds a valid multi-engine class or type rating.
 - (2) For the renewal of a multi-engine class rating the pilot shall:
 - (i) within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the skill test that is applicable to the level of licence, category and class rating, and
 - (ii) have completed 10 route sectors within the 3 months preceding the expiry date.
 - (3) Where applicable the proficiency check shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.
 - (4) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.
- (g) **Re-issue.** If the class rating has expired the applicant shall:
- (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) Pass the required skill test for the 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 licence as a rating.
- (b) A pilot seeking an aircraft type rating to be added on a pilot licence; or the addition of an aircraft type rating that is accomplished concurrently with an additional aircraft category or class rating shall:
 - (1) Hold or concurrently obtain an instrument rating that is appropriate to the aircraft category, class or type rating sought;
 - (2) Have an endorsement in his or her logbook or training record from a authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
 - (3) Pass the required knowledge test unless the applicant holds a holds an aeroplane, helicopter, powered-lift or airship category rating on their pilot license;
 - (4) Pass the required knowledge and 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.
- (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 authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) pass the required skill test for the appropriate category, type and if applicable class of aircraft.

2.3.2.5 CATEGORY II AND III AUTHORISATION

- (a) The Authority will issue a Category II or Category III pilot authorisation by letter, to accompany the pilot's licence, when the pilot meets the requirements contained in paragraph and IS: 2.3.2.5.
- (b) General.
 - (1) A person, not flying under Part 8, may not act as pilot of an aircraft during Category II or III operations unless that person holds a Category II or III pilot authorisation for that category, class or type of aircraft.
 - (2) The applicant for a Category II or III pilot authorisation shall:
 - (i) hold a pilot licence with an instrument rating or an ATPL; and
 - (ii) hold a category and class or type rating for the aircraft for which the authorisation is sought.
- (c) Knowledge. The applicant for a Category II or III pilot authorisation shall have completed the theoretical knowledge instruction and demonstrated in a test the knowledge subjects as listed in IS 2.3.2.5.
- (d) Experience. The applicant for a Category II or III pilot authorisation shall have at least:
 - (1) 50 hours of night flight time as PIC;
 - (2) 75 hours of instrument time under actual or simulated instrument conditions; and
 - (3) 250 hours of cross-country flight time as PIC.
- (e) Flight instruction. The applicant for a Category II or III pilot authorisation shall have completed the flight instruction on the subjects listed in IS 2.3.2.5.
- (f) Skill. The applicant for a Category II or III pilot authorisation shall pass a skill test including the subjects 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 authorisation is 6 months.
- (h) Renewal. For the renewal of a Category II or III pilot authorisation the pilot shall have completed a proficiency check including the subjects 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 authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) pass the required skill test on the subjects listed in IS 2.3.2.5.

2.3.2.6 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 authorised 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 authorised instructor who certifies that person is proficient to operate a high performance aeroplane.

2.3.2.6 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 authorised 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 authorised instructor who certifies that person is proficient to operate a complex aeroplane.

2.3.2.7 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 authorised 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.
 - (2) Received and logged flight training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished flight training in 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.

2.3.3 STUDENT PILOTS, PILOT LICENCES, INSTRUMENT RATINGS**2.3.3.1 STUDENT PILOTS**

- (a) Age. The applicant for a student pilot authorisation shall be not less than 16 years of age.
- (b) Knowledge. The applicant for a student pilot authorisation shall receive and log ground training from an authorised instructor on the following subjects:
- (1) applicable sections of Part 2 and Part 8;

- (2) airspace rules and procedures for the airport 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 as listed in IS 2.3.3.1, 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 authorised instructor, on the manoeuvres and procedures as listed in IS 2.3.3.1 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) with the authority of an authorised flight instructor.

2.3.3.2 PRIVATE PILOT LICENCE – GENERAL REQUIREMENTS FOR THE AEROPLANE, HELICOPTER, POWERED LIFT, AIRSHIP, BALLOON AND GLIDER CATEGORIES

- (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 authorised instructor on the following subjects appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft to be included on the licence:
- (1) Air law:
 - 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:
 - Principles of operation and functioning of powerplants, systems and instruments;
 - Operating limitations of aeroplanes and the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;
 - For helicopter and powered lift, transmission (power-trains) where applicable;
 - For airship and balloon, physical properties of gases;
 - (3) Flight performance and planning:
 - effects of loading and mass distribution on flight characteristics; mass and balance calculations;
 - (iv) use and practical application of take-off or launching, landing and other performance data;
 - (v) 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 programmes 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 a 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 VFR;
- (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 authorised instructor who:
 - (i) conducted the training on the knowledge subjects; and
 - (ii) certifies that the person is prepared for the required knowledge test; and
 - (2) pass the required written knowledge test on the knowledge areas listed in item (b).
- (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; and
 - (2) have demonstrated by passing a skill test the ability to perform as pilot-in-command 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, and to
 - (i) recognise and manage threats;
 - (ii) operate the aircraft within its limitations;
 - (iii) complete all manoeuvres with smoothness and accuracy;
 - (iv) exercise good judgement and airmanship;
 - (v) apply aeronautical knowledge; 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 pilot-in-command or co-pilot of an aircraft within the appropriate aircraft category engaged in non-revenue flights.
- (h) Validity. Subject to compliance with the requirements specified in this Part. For renewal of the licence see paragraph 2.2.3.

2.3.3.2.1 EXPERIENCE AND FLIGHT INSTRUCTION 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 as pilot of aeroplanes. Credit for such experience shall be limited to a total of 5 hours if completed in under instruction in a flight simulator or flight procedures trainer approved by the Authority.
 - (2) The applicant shall have completed in aeroplanes not less than 10 hours of solo flight time under the supervision of an authorised flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.
 - (3) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as pilot-in-command 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 2.3.3.2.1. 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 totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.
 - (2) The instructor shall ensure that the applicant 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.
 - (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 licence 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 licence.

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

2.3.3.2.2 EXPERIENCE AND FLIGHT INSTRUCTION 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 as pilot of helicopters. A total of 5 hours may have been completed under instruction in a flight simulator or flight procedures trainer 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 totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.
 - (3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as pilot-in-command 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 applicable subsection of IS 2.3.3.2 appropriate to the category of aircraft. 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 totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
 - (iii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) control of the helicopter by external visual reference;
 - (v) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (vi) ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground;
 - (vii) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
 - (viii) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids including a flight of at least one hour;
 - (ix) emergency operations, including simulated helicopter equipment malfunctions; autorotative approach and landing; and
 - (x) operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology
 - (3) 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.

2.3.3.2.3 EXPERIENCE AND FLIGHT INSTRUCTION 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 authorised flight instructor, including
 - (i) five hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full stop landings at two different aerodromes shall be made.

- (b) Flight Instruction. The applicant shall have received not less than 20 hours dual instruction from an authorised instructor in at least the following areas:
- (1) Recognise threat and error management;
 - (2) Pre-flight operations, including mass and balance determination, powered lift inspection and servicing;
 - (3) Aerodrome and traffic operations, collision avoidance precautions and procedures;
 - (4) Control of the powered lift by external visual reference;
 - (5) Ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings – normal, out of wind and sloping 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 autorotative 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.

2.3.3.2.4 EXPERIENCE AND FLIGHT INSTRUCTION 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 totalling 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 authorised instructor in at least the following areas:
- (1) Pre-flight operations, including mass and balance determination, airships inspections and servicing;
 - (2) Ground reference manoeuvres;
 - (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
 - (5) Control of the airships by external visual reference;
 - (6) Take-offs and landings and go-around;
 - (7) Maximum performance (obstacle clearance) take-offs;
 - (8) Flight by reference solely to instruments, including the completion of a level 180 degree turn;
 - (9) Navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;
 - (10) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and
 - (11) Radiotelephony procedures and phraseology.

2.3.3.2.5 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL – BALLOON CATEGORY

- (a) Experience. The applicant for a PPL- balloon shall have completed not less than 8 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 authorised 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;
 - (9) Emergency procedures.

2.3.3.2.6 EXPERIENCE AND FLIGHT INSTRUCTION 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 authorised 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;
 - (9) emergency procedures.
- (c) Crediting of time in other aircraft categories. The holder of a pilot licence in the aeroplane category may be credited with 3 hours towards the 6 hours of flight time required for the glider licence

2.3.3.3 COMMERCIAL PILOT LICENSE

- (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 authorised instructor on the following subjects appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft to be included on the licence:
- (1) Air law:
 - (i) rules and regulations relevant to the holder of a CPL;
 - (ii) 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 the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;
 - (iii) use and serviceability checks of equipment and systems of appropriate aircraft;

- (iv) maintenance procedures for airframes, systems and powerplants of appropriate aircraft;
- (v) for helicopters and powered-lift, transmission (power-trains) where applicable;
- (vi) for airships and balloons, physical properties and practical application of gases
- (3) Flight performance and planning:
 - (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 operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures;
 - (iv) in the case of helicopter and powered-lift, effects of external loading;
- (4) Human performance:
 - (i) human performance relevant to the appropriate aircraft type;
 - (ii) principles of threat and error management;
- (5) Meteorology:
 - (i) interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
 - (ii) aeronautical meteorology; climatology of relevant areas 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;
- (6) Navigation:
 - (i) air navigation, including the use of aeronautical charts, instruments and navigation aids; understanding of the principles and characteristics of appropriate navigation systems; operation of air borne equipment
- (7) 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;
 - (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;
- (8) Principles of flight:
 - (i) principles of flight relating to the appropriate category of aircraft;
- (9) Radiotelephony
 - (i) communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure;
 - (ii) as further specified in IS 2.3.3.3 Appendix A.
- (d) Knowledge testing. The applicant for the CPL shall:
 - (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) conducted the training on the knowledge subjects; and

- (ii) certifies that the person is prepared for the required knowledge test; and
- (2) Pass the required knowledge test on the knowledge subjects listed in IS 2.3.3.3.
- (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 authorised instructor who certifies that the person is prepared for the required skill test; and
 - (2) shall have demonstrated by passing a skill test the ability to perform as pilot-in-command of an aeroplane, the areas of operation described in IS 2.3.3.3 , 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 judgement 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 pilot-in-command in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
 - (3) to act as pilot-in-command in commercial air transportation in an aircraft within the appropriate aircraft category certificated for single-pilot operation;
 - (4) to act as co-pilot in commercial air transportation 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. For renewal of the licence see 2.2.3.

2.3.3.3.1 EXPERIENCE AND FLIGHT INSTRUCTION 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 simulator or flight procedures trainer.
 - (2) The applicant shall have completed in aeroplanes not less than:
 - (i) 100 hours as pilot-in-command or, in the case of a course of approved training, 70 hours as pilot-in-command;
 - (ii) 20 hours of cross-country flight time as pilot-in-command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;
 - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;
 - (iv) if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.
 - (3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:

- (i) 10 hours as PIC in a category other than helicopters; or
 - (ii) 30 hours as pilot-in-command holding a PPL(H) on helicopters; or
 - (iii) 100 hours as pilot-in-command 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 simulator or flight procedures trainer.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
 - (iii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) control of the aeroplane by external visual reference;
 - (v) flight at critically slow airspeeds; 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.
 - (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.

2.3.3.3.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – HELICOPTER CATEGORY

- (a) Experience.
- (1) The applicant for a CPL(H) licence 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 simulator or flight procedures trainer.
 - (2) The applicant shall have completed in helicopters not less than:
 - (i) 35 hours as pilot-in-command;
 - (ii) 10 hours of cross-country flight time as pilot-in-command 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 licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.
 - (3) The holder of a pilot licence in the helicopter category may be credited towards the 150 hours of flight time as follows:
 - (i) 20 hours as pilot-in-command holding a PPL(A) in aeroplanes; or
 - (ii) 50 hours as pilot-in-command 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 under Part 3 on the subjects listed in IS 2.3.3.7 Appendix B.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
 - (iii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) control of the helicopter by external visual reference;
 - (v) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (vi) ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
 - (vii) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
 - (viii) hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
 - (ix) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
 - (x) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
 - (xi) abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing; and
 - (xii) operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology
 - (3) If the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation.

2.3.3.3.3 EXPERIENCE AND FLIGHT INSTRUCTION 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 totalling 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 pilot-in-command.
- (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 authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
- (1) Recognise and manage threats and errors 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 sloping 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 reversion to autorotation; autorotative 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.

2.3.3.3.4 EXPERIENCE AND FLIGHT INSTRUCTION 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 pilot-in-command or pilot-in-command 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 authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
- (1) Pre-flight operations, including mass and balance determination, airships inspection and servicing;
 - (2) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (3) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
 - (4) Control of the airships by external visual reference;

- (5) Recognition of leak;
- (6) Normal take-offs and landings;
- (7) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;
- (8) Flight under IFR;
- (9) Cross-country flying using visual reference, dead reckoning and, where applicable, radio navigation aids;
- (10) Emergency operations, including simulated airship equipment malfunctions;
- (11) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- (12) Communications procedures and phraseology.

2.3.3.3.5 EXPERIENCE AND FLIGHT INSTRUCTION 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 gas 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 authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
 - (1) Technical subjects;
 - (2) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;
 - (3) Pre-flight lesson on a manoeuvre to be performed in flight;
 - (4) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
 - (5) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
 - (6) Collision avoidance precautions;
 - (7) Control of a free balloon by external visual references;
 - (8) Recognition of and recovery from rapid descents;
 - (9) Navigation and cross-country flying using visual reference and dead reckoning;
 - (10) Approaches and landings, including ground handling;
 - (11) Emergency procedures; and

- (12) Post-flight procedures.

2.3.3.3.6 EXPERIENCE AND FLIGHT INSTRUCTION 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 authorised instructor in at least the following areas of operation to the level of performance required for a commercial pilot:
 - (1) Pre-flight preparation;
 - (2) Pre-flight procedures
 - (3) Aerodrome and glider port operations;
 - (4) Launches and landings;
 - (5) Performance speeds;
 - (6) Soaring techniques;
 - (7) Performance manoeuvres;
 - (8) Navigation
 - (9) Slow flight and stalls
 - (10) Emergency procedures; and
 - (11) Post-flight procedures.

2.3.3.4 AIRLINE TRANSPORT PILOT LICENCE – GENERAL REQUIREMENTS FOR THE AEROPLANE, HELICOPTER, AND POWERED-LIFT CATEGORIES

- (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 authorised instructor on the following subjects appropriate to the privileges of the airline transport pilot licence and to the category of aircraft intended to be included on the licence:
 - (1) Air law:
 - (i) rules and regulations relevant to the holder of an ATPL; rules of the air; appropriate 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 and planning:
 - (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;
 - (v) Human performance:
 - (vi) human performance relevant to the appropriate aircraft category;
 - (vii) principles of threat and error management;
- (4) 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; jet streams;
- (5) 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;
- (6) Operation 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;
- (7) Principles of flight:
 - (i) principles of flight relating to the appropriate aircraft category;
- (8) 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 authorised instructor who:
 - (i) conducted the training on the knowledge subjects; and
 - (ii) certifies that the person is prepared for the required knowledge test; and
 - (2) Pass the required written knowledge test on the knowledge subjects listed in item (c) 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 authorised 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 pilot-in-command 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 this Part, 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 pilot-in-command in a multi-engined aircraft.
 - (3) have demonstrated by passing a skill test the ability to perform the areas of operation described in IS 2.3.3.4 Appendix B, 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 recognise 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 judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and
 - (vi) communicate effectively with the other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including

allocation of pilot tasks, crew cooperation, adherence to 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 pilot-in-command 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. For renewal of the licence see 2.2.3.

2.3.3.4.1 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL - AEROPLANE CATEGORY

(a) Experience.

- (1) The applicant for an ATPL (A) shall have completed not less than 1500 hours of flight time as a pilot of aeroplanes of which a maximum of 100 hours may have been completed in a flight simulator. The applicant shall have completed in aeroplanes not less than:
 - (i) 250 hours, either as pilot-in-command, or made up by not less than 100 hours as pilot-in-command and the necessary additional flight time as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command; provided that the method of supervision employed is acceptable to the CASAS;
 - (ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is acceptable to the CASAS;
 - (iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
 - (iv) 100 hours of night flight as pilot-in-command or as co-pilot.
 - (2) Holders of a CPL(H) will be credited with 50% of their helicopter flight time as pilot-in-command towards the flight time required in (1).
 - (3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.2.4 Appendix B.
 - (4) 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.

2.3.3.4.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL - HELICOPTER CATEGORY

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 pilot-in-command, or made up by not less than 100 hours as pilot-in-command and the necessary additional flight time as co-pilot performing, under the

- supervision of the pilot-in-command, the duties and functions of a pilot-in-command; provided that the method of supervision employed is acceptable to the CASAS;
- (ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is acceptable to the CASAS;
 - (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 pilot-in-command or as co-pilot.
- (2) Holders of a CPL(A) will be credited with 50 percent of their aeroplane flight time as pilot-in-command towards the flight time required in (1).
 - (3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.2.4 Appendix B.
 - (4) The applicant for an ATPL(H) shall be the holder of a CPL(H) issued under this Part.
- (c) Flight Instruction. The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.

2.3.3.4.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL - POWERED-LIFT CATEGORY

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 pilot-in-command, or made up by not less than 100 hours as pilot-in-command and the necessary additional flight time as co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of pilot-in-command, 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 pilot-in-command or as co-pilot performing under supervision of the pilot-in-command 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; and
 - (iv) 25 hours of night time as pilot-in-command 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.
- (d) 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.

2.3.3.5 INSTRUMENT RATING

- (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 licence 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 authorised 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:
 - (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) Operation 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 authorized instructor who:
 - (i) conducted the training on the knowledge subjects;
 - (ii) certifies that the person is prepared for the required knowledge test; and
 - (2) pass the required knowledge test on the knowledge subjects listed in item (c) above.
- (e) Experience.
- (1) The applicant for an IR shall hold a pilot license with an aircraft category and class rating, if applicable, for the instrument rating sought
 - (2) The applicant shall have completed not less than:

- (i) 50 hours of cross-country flight time as pilot-in-command of aircraft in categories acceptable to the CASAS, 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 authorised instructor.
- (f) 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 authorised 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;
 - (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 authorised 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.
- (g) Skill. The applicant for an IR shall:
- (1) have received an endorsement from an authorised 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 the areas of operation described in IS 2.3.3.5, with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:
 - (i) operate the aeroplane within its limitations;
 - (ii) complete all manoeuvres with smoothness and accuracy;
 - (iii) exercise good judgement 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;
 - (vi) understand and apply crew coordination and incapacitation procedures; and
 - (vii) communicate effectively with the other flight crew members
 - (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 2.3.3.5, if the privileges of the instrument rating are to be exercised on such aircraft.

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).

- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of an IR is 1 year.
- (i) 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 2.3.3.5.
 - (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 2.3.3.5.
 - (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.
- (j) Re-issue. If the instrument rating has been expired the applicant shall:
 - (1) have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) pass the required skill test on the subjects listed in IS 2.3.3.5.

2.3.4 INSTRUCTORS FOR PILOT LICENSING

2.3.4.1 GENERAL

- (a) Applicability
 - (1) This Section prescribes the requirements for the issuance of instructor licences, ratings or authorisations, the conditions under which those ratings and authorisations are necessary, and the privileges and limitations on those ratings and authorisations.
 - (2) The following instructor licences and authorisations are issued under this part:
 - (i) Flight Instructor licence;
 - (ii) Ground Instructor licence;
 - (iii) Instructor Authorisation for Synthetic Flight Training
- (b) Knowledge for Fundamentals of Instruction
 - (1) In addition to specific requirements listed in this section, and except as identified in (2) below, applicants for instructor licences, ratings and authorisations shall have received and logged training from an authorised instructor on the fundamentals of instructing and have passed a knowledge test on the following areas of instructing:
 - (i) techniques of applied instruction;
 - (ii) assessment of student performance in those subjects in which ground instruction is given;
 - (iii) the learning process;
 - (iv) elements of effective teaching;
 - (v) student evaluation and testing, training philosophies;
 - (vi) training programme development;
 - (vii) lesson planning
 - (viii) classroom instructional techniques;
 - (ix) use of training aids, including flight simulation training devices as appropriate;
 - (x) analysis and correction of student errors;
 - (xi) human performance relevant to flight instruction;
 - (xii) hazards involved in simulating system failures and malfunctions in the aircraft; and

- (xiii) principles of threat and error management.
- (2) The following applicants do not need to comply with paragraph (1) of this subsection –
 - (i) The holder of an instructor licence issued under this part who has already passed the knowledge test in the areas of instructing;
 - (ii) The holder of a current teacher's certificate issued by a national or local authority that authorises the person to teach at a secondary educational level or higher; or
 - (iii) A person who provides evidence of an equivalent level of experience acceptable to the Authority.

2.3.4.2 FLIGHT INSTRUCTOR LICENCE

- (a) Age. The applicant for a flight instructor licence shall be not less than 18 years of age
- (b) Medical Fitness. The applicant for a flight instructor licence shall have a Class 1 medical certificate.
- (c) Knowledge.
 - (1) Receive and log training from an authorised instructor and pass a flight instructor knowledge test on:
 - (i) The aeronautical knowledge areas for a student, private and commercial pilot license applicable to the aircraft category for which flight instructor privileges are sought;
 - (ii) The aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought; and
 - (2) Meet the requirements for fundamentals of knowledge instruction as listed in 2.3.4.1(b).
- (d) Experience. The applicant shall hold a licence 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 licence in the aeroplane category – hold either a CPL or ATPL aeroplane category with instruments rating and appropriate class and/ or type ratings;
 - (2) For an instructor licence in the powered-lift category – hold either a CPL or ATPL powered-lift category with instrument rating as applicable, class or type rating;
 - (3) For an instructor licence in the helicopter category – hold either a CPL or ATPL helicopter category and any applicable class or type rating.
 - (4) For an instructor licence in the balloon category – hold a CPL balloon category with applicable class rating;
 - (5) For an instructor licence in the airship category – hold a CPL airship category and any applicable ratings;
 - (6) For an instructor licence in the glider category – hold a CPL glider category and any applicable ratings; and
 - (7) For an instructor instrument rating licence – hold an IR in the appropriate category of aircraft.
- (e) Flight Instruction. Receive flight instruction from an authorised instructor in the areas of:
 - (1) Flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
 - (2) Have practised 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 authorised 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 licence sought on the areas of operation in IS 2.3.4.2 in an—
Aircraft that is representative of the category of aircraft, and if applicable class and/or type, for the aircraft rating sought; or

Approved flight simulation training device that is representative of the category, and if applicable class and/or type of aircraft for the licence and rating sought, and used in accordance with an approved course at an ATO certified under Part 3.

- (g) Privileges, limitations and qualifications.
- (1) A flight instructor is authorised within the limitations of that person's flight instructor licence, and pilot license and ratings, to give training and endorsements that are required for, and relate to:
 - (i) A student pilot authorisation;
 - (ii) A pilot license;
 - (iii) A flight instructor licence;
 - (iv) A ground instructor licence;
 - (v) An aircraft category rating;
 - (vi) An aircraft class rating;
 - (vii) An instrument rating;
 - (viii) proficiency check or recency of experience requirement;
 - (ix) A knowledge test; and
 - (x) A skill test.
 - (2) A flight instructor shall observe the limitations and qualifications of his/her licence as specified in IS: 2.3.4.2.8.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of instructor licence is 2 years.
- (i) Renewal. A flight instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder—
- (1) Passes a skill test for—
 - (i) Renewal of the 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 licence.
 - (3) If a flight instructor accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her flight instructor licence—
 - (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 licence has expired, the applicant shall:
- (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test, and

- (2) Pass the prescribed skill test.

- (k) Additional Flight Instructor licences. An applicant for an additional flight instructor licence shall meet the requirements listed in 2.3.4.2 that apply to the flight instructor rating sought.
- (l) Flight Instructor Limitations and Qualifications. The holder of a flight instructor licence shall observe the limitations and qualifications applicable to flight instructors, as given in IS 2.3.4.2.

- (m) 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 licence that instructor has endorsed for solo flight privileges, and the date of the endorsement; and
 - (ii) The name of each person that instructor has endorsed for a knowledge test or skill test, and a record of the kind of test, the date, and the results; and
 - (3) Retain the records required by this subsection for at least 3 years.

2.3.4.3 INSTRUCTOR AUTHORISATION FOR SYNTHETIC FLIGHT TRAINING

- (a) Former holders of professional pilot licenses, having instructional experience can apply for an authorisation to provide flight instruction in a synthetic flight trainer, provided the applicant has at least 2 years experience as instructor in synthetic flight trainers.
 - (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 authorisation privileges are sought, the ability to instruct in those areas in which ground instruction is to be given.
 - (2) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an authorisation are to carry out synthetic flight training instruction 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 authorisation for synthetic flight training is 2 years.

2.3.4.4 GROUND INSTRUCTOR AUTHORISATION

- (a) Age. The applicant for a ground instructor licence shall be at least 18 years of age.
- (b) Knowledge.
 - (1) Receive and log training from an authorised instructor and pass a knowledge test on the aeronautical knowledge areas appropriate to the aircraft category, for the licence and ratings below as applicable—
 - (i) For a basic rating, the knowledge for a student and private pilot licence 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 2.3.4.1(b).
- (c) Privileges. The holder of a ground instructor licence may exercise the privileges appropriate to the licence and rating held.
 - (1) A person who holds a ground instructor licence with a basic rating is authorised to provide—
 - (i) Ground training in the aeronautical knowledge areas required for the issuance of a student pilot authorisation or 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 licence with an advanced rating is authorised to provide—
 - (i) Ground training in the aeronautical knowledge areas required for the issuance of any licence or rating;
 - (ii) Ground training required for any flight review; and
 - (iii) A recommendation for a knowledge test required for the issuance of any licence.
- (3) A person who holds an instrument ground instructor rating is authorised 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 authorised, within the limitations of the licence 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.
- (d) Currency Requirements.
 - (1) The holder of a ground instructor license may not perform the duties of a ground instructor unless, within the preceding 12 months—
 - (i) The person has served for at least 3 months as a ground instructor; or
 - (ii) The person has received an endorsement from an authorised ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in this part for the authorisation and rating.

2.3.5 DESIGNATED PILOT EXAMINERS

2.3.5.1 GENERAL REQUIREMENTS

- (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 licence 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 Organisation;
 - (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 licence/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 of 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 CASAS who holds a current and valid licence with appropriate category, and if applicable class and type ratings, in the areas of operation contained in IS 2.3.5.1.
- (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 licence, and if applicable, class/type ratings appropriate to the designation;
 - (ii) flight instructor licence 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 licence 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 2 years.
- (i) Renewal.
 - (1) Renewal will be at the discretion of the CASAS.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS: 2.3.5.1
- (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.

2.3.5.2 EXPERIENCE REQUIREMENTS FOR DPE – FOR PRIVATE PILOT EXAMINER

2.3.5.2.1 EXPERIENCE: DPE- PRIVATE PILOT AEROPLANE CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL(A), appropriate class rating(s) and in IR(A);
 - (2) A valid flight instructor licence 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 aeroplanes which includes at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought.

2.3.5.2.3 EXPERIENCE: DPE- PRIVATE PILOT HELICOPTER CATEGORY

The applicant shall have at least:

- (5) A CPL(H), appropriate class rating(s);
- (6) A valid flight instructor licence with a helicopter category and appropriate class rating(s).
- (7) 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;
- (8) 200 hours as a flight instructor in helicopters, as appropriate for the designation sought.

2.3.5.2.4 EXPERIENCE: DPE- PRIVATE PILOT POWERED-LIFT CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL powered-lift category with an instrument powered-lift rating;
 - (2) A valid flight instructor licence 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.

2.3.5.2.5 EXPERIENCE: DPE- PRIVATE PILOT AIRSHIP CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL airship category and any applicable class rating(s);
 - (2) A valid flight instructor licence with a 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.

2.3.5.2.6 EXPERIENCE: DPE- PRIVATE PILOT BALLOON CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL balloon category and applicable class rating(s);
 - (2) A valid flight instructor licence 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.

2.3.5.2.7 EXPERIENCE: DPE- PRIVATE PILOT GLIDER CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL glider category rating;
 - (2) A valid flight instructor licence 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.

2.3.5.3 EXPERIENCE REQUIREMENTS FOR DPE – FOR COMMERCIAL PILOT EXAMINER

2.3.5.3.1 EXPERIENCE: DPE- COMMERCIAL AND INSTRUMENT RATING – AEROPLANE CATEGORY

The examiner applicant shall have at least:

- (5) A commercial pilot licence with an aeroplane category rating, appropriate class rating(s) and an Instrument –Aeroplane rating.
- (6) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.
- (7) 2,000 hours as PIC, which includes as 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 if 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;
- (8) 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.

2.3.5.3.2 EXPERIENCE: DPE- COMMERCIAL AND INSTRUMENT RATING – HELICOPTER CATEGORY

- (a) The examiner applicant shall have at least:
 - (1) A commercial pilot licence with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.
 - (2) A valid flight instructor certificate with an helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year;
 - (ii) 500 hours in the class of aeroplane for which the designation is sought;
 - (iii) 100 hours if instrument flight time in actual or simulated conditions; and
 - (iv) 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.

2.3.5.3.3 EXPERIENCE: DPE- COMMERCIAL AND INSTRUMENT RATING – POWERED-LIFT CATEGORY

- (a) The examiner applicant shall have at least:
 - (1) A commercial pilot licence 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 as 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 if 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.

2.3.5.3.4 EXPERIENCE: DPE- COMMERCIAL– HELICOPTER CATEGORY

- (a) The examiner applicant shall have at least:
 - (1) A commercial pilot licence with a helicopter category rating

- (2) A valid flight instructor certificate with an helicopter category rating;
- (3) 2,000 hours as PIC, which includes as 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 –
 - (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) 50 hours of instrument flight instruction in helicopters.

2.3.5.3.5 EXPERIENCE: DPE- COMMERCIAL– AIRSHIP CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL with airship category rating and any applicable class rating(s);
 - (2) A valid flight instructor licence 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.

2.3.5.3.6 EXPERIENCE: DPE- COMMERCIAL– BALLOON CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL balloon category and applicable class rating(s);
 - (2) A valid flight instructor licence 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 licence with balloon category rating and applicable class rating for at least 1 year prior to designation; and
 - (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.

2.3.5.3.7 EXPERIENCE: DPE- COMMERCIAL LICENCE– GLIDER CATEGORY

- (a) The applicant shall have at least:
 - (1) A CPL with glider category rating;
 - (2) A valid flight instructor licence 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.

2.3.5.4 EXPERIENCE: DPE FOR AIRLINE TRANSPORT PILOT LICENCES

2.3.5.4.1 EXPERIENCE: DPE – AIRLINE TRANSPORT PILOT – AEROPLANE CATEGORY

- (a) The examiner applicant shall have at least:

- (1) An airline transport pilot licence 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 as 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; and
 - (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; and
 - (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).

2.3.5.4.2 EXPERIENCE: DPE- AIRLINE TRANSPORT PILOT LICENCE – HELICOPTER CATEGORY

- (a) The examiner applicant shall have at least:
 - (1) An airline transport pilot licence 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 as least:
 - (i) 1,200 hours in helicopters, of which 100 hours were accrued within the past year;
 - (ii) 100 hours if 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.

2.3.5.4.3 EXPERIENCE: DPE- AIRLINE TRANSPORT PILOT – POWERED-LIFT CATEGORY

- (a) The examiner applicant shall have at least:
 - (1) An airline transport pilot licence 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 as 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.

2.4 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 licence 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 SURINAME unless a valid licence 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 authorisation may be provided in writing to the licence holder by the CASAS in place of issuing the class or type rating in accordance with this Part. This authorisation 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 licence and class rating, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence or rating.
- (d) An applicant for renewal or re-issue of an FE licence and class rating shall meet the requirements as are specified for the licence and rating in this Part.

2.4.3 *Authority to act as a flight crew member.*

- (a) A person shall not act as a flight crew member of an aircraft registered in SURINAME unless a valid licence 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 licence and class rating for the aircraft to be flown.

2.4.4 *Flight Engineer Licence and Class Rating Requirements*

2.4.4.1 FLIGHT ENGINEER RATINGS

- (a) The Authority may issue the following class ratings to be placed on a flight engineer's licence when the applicant completes the requirements in this Part for the rating sought:
 - (1) Reciprocating engine powered;
 - (2) Turbopropeller 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.

2.4.4.2 FLIGHT ENGINEER LICENCE

- (a) Age. The applicant for a flight engineer licence and class rating shall be not less than 18 years of age.

- (b) Medical. The applicant for a flight engineer licence and class rating shall have a Class 1 medical certificate.
- (c) Knowledge. The applicant for a flight engineer licence and class rating shall receive and log ground training from an authorised instructor on the following subjects:
- (1) Air law:
 - (i) rules and regulations relevant to the holder of a flight engineer licence; 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; 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;
 - (i) Use and practical application of performance data including procedures for cruise control
 - (4) Human performance:
 - (i) human performance relevant to the flight engineer;

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 authorised instructor who:
 - (i) conducted the training on the knowledge subjects;
 - (ii) certifies that the person is prepared for the required knowledge test; and
 - (2) pass the required knowledge test.
- (e) Experience.
 - (1) The applicant for a flight engineer licence and class rating shall have completed under the supervision of a person accepted by the CASAS 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 CASAS 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

as further specified in IS 2.4.4.
 - (4) The applicant shall have completed a CRM course as listed in IS 2.3.2.4 Appendix B.
- (f) Skill. The applicant for a flight engineer licence and class rating shall:
 - (1) have received an endorsement from an authorised 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 licence, and to
 - (i) use aircraft systems within the aircraft's capabilities and limitations;
 - (ii) exercise good judgement 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 crew members.

- (3) Requirements for the skill test are given at IS 2.4.4.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight engineer licence 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, on the basis of those requirements specified in 2.4.4 (b) and (d) which are applicable to the safe operation of that type of aircraft.
- (h) Validity. Subject to compliance with the requirements specified in this Part the validity period of an FE is 1 year. For renewal of the licence see IS 2.2.3.

2.4.4.3 RECENT EXPERIENCE REQUIREMENTS

- (a) No person holding a flight engineer licence and class rating shall act exercise the privileges of the flight engineer licence unless he/she has completed within the past 12 months—
 - (1) at least 30 route sectors, to include take-offs and landing as flight engineer on the applicable aeroplane class, of which no more than 15 sectors may be completed in a flight simulation training device, or
 - (2) refresher training acceptable to the Authority.

2.4.5 Instructors for Flight Engineer Licenses

2.4.5.1 REQUIREMENTS FOR FLIGHT ENGINEER INSTRUCTOR LICENCE AND CLASS RATING

- (a) Age. An applicant for a flight engineer instructor licence and class rating shall be at least 18 years of age.
- (b) Medical. An applicant for a flight engineer instructor licence shall hold a Class 1 medical certificate.
- (c) Knowledge.
 - (1) An applicant for a flight engineer instructor licence shall have received and logged training from an authorised instructor on the fundamentals of instructing and have passed a knowledge test on the following areas of instructing:
 - (i) techniques of applied instruction;
 - (ii) assessment of student performance in those subjects in which ground instruction is given;
 - (iii) the learning process;
 - (iv) elements of effective teaching;
 - (v) student evaluation and testing, training philosophies;
 - (vi) training programme development;
 - (vii) lesson planning
 - (viii) classroom instructional techniques;
 - (ix) use of training aids, including flight simulation training devices as appropriate;
 - (x) analysis and correction of student errors;
 - (xi) human performance relevant to flight instruction;
 - (xii) hazards involved in simulating system failures and malfunctions in the aircraft; and
 - (xiii) principles of threat and error management.
 - (2) The following applicants do not need to comply with paragraph (1) of this subsection –
 - (i) The holder of an instructor licence issued under this part who has already passed the knowledge test in the areas of instructing;
 - (ii) The holder of a current teacher's certificate issued by a national or local authority that authorises the person to teach at a secondary educational level or higher; or
 - (iii) A person who provides evidence of an equivalent level of experience acceptable to the Authority.

Experience. The applicant for a flight engineer instructor licence and class rating shall hold at least a current and valid flight engineer licence and class rating for which the instructor licence is sought.

Flight Instruction. Received flight instruction from an authorised instructor in the areas of:

Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and

Have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

Privileges. The privileges of a flight engineer instructor licence and class rating are to give flight and ground instruction to flight engineer licence applicants and to endorse those applicants for a knowledge or skill test as applicable.

Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer instructor licence is 2 years.

Renewal. A flight engineer instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date –

Conducted at least one of the following parts of an approved course for a flight engineer licence or class rating:

(iv) One simulator session of at least 3 hours; or

(v) One flight exercise of at least 1 hour including at least 2 take-offs and landings; or

(3) Received refresher training acceptable to the Authority.

(i) **Reissue.** If the flight engineer instructor licence 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: 2.4.4.2.

2.4.5.2 INSTRUCTOR AUTHORISATION FOR SYNTHETIC FLIGHT TRAINING

(a) Former holders of flight engineer licences, having instructional experience may apply for an authorisation to provide flight instruction in a flight simulation training device, provide the applicant has at least 2 years 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 authorisation privileges are sought, the ability to instruct in those areas in which ground instruction is to be given.

(2) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of an authorisation are to carry out synthetic flight training instruction 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 authorisation for synthetic flight training is 2 years.

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 1 medical certificate.

(c) **Eligibility.** An applicant for a designated flight engineer examiner shall:

(1) Hold at least the flight engineer licence and class rating for which examining authority is sought;

(2) Have held a flight engineer instructor licence or company flight engineer check airman authorisation for preferably at least 1 year;

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

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

- (5) Have flight engineer licence/class ratings and flight engineer instructor licence or check airman authorisation that have 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 licence/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: 2.4.6.1 conducted by an inspector of the CASAS who holds a current and valid flight engineer licence 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 licence 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 licence 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 2 years.
- (i) Renewal.
 - (1) Renewal will be at the discretion of the CASAS.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS: 2.4.6.1.
- (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.

2.5 FLIGHT NAVIGATOR LICENCE

2.5.1 *Applicability*

- (a) This section prescribes the requirements for the issue, renewal and re-issue of a flight navigator licence.

2.5.2 *General rule concerning Flight Navigator Licences*

- (a) A person shall not act as a flight navigator of an aircraft registered in SURINAME unless a valid licence 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 licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence.
- (c) An applicant shall for renewal or re-issue of a flight navigator licence, meet the requirements as are specified for that licence in this Part.

2.5.3 *Authority to act as a flight crew member.*

- (a) A person shall not act as a flight crew member of an aircraft registered in SURINAME unless a valid licence 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 licence.

2.5.4 *Flight navigator licence*

- (a) Age. The applicant for a flight navigator licence shall be not less than 18 years of age.
- (b) *Medical:* The applicant for a flight navigator licence shall have a Class 1 medical certificate.
- (c) Knowledge. The applicant for a flight navigator licence shall receive and log ground training from an authorised 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 licence; 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;
 - (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;

Note: guidance material to design training programs on human performance 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;

- (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;
 - (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 licence shall 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; and
 - (2) pass the required knowledge test on the subjects listed in item (c).
- (e) Experience. The applicant for a flight navigator licence:
 - (1) Shall present satisfactory evidence, such as a logbook or records of an air operator certificated under Part 9 of these regulations, 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 CASAS, 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 licence towards the 200 hours of flight time required in item 2.
- (f) Skill. The applicant shall have demonstrated by passing the required skill test on the items in IS: 2.5.4 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 licence, and to:
 - (1) exercise good judgement and airmanship;
 - (2) apply aeronautical knowledge;
 - (3) perform all duties as part of an integrated crew; and

- (4) communicate effectively with the other flight crew members.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight navigator licence 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 licence is 2 years. The licence shall become invalid when the flight navigator has ceased to exercise the privileges of the licence for a period of 6 months. The licence shall remain invalid until the flight navigator's ability to exercise the privileges of the licence has been re-established. For renewal of the licence see IS 2.2.3.

2.5.5 Designated Flight Navigator Examiners

2.5.5.1 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 licence 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 licence 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 licence rating for which designation is sought.
- (e) Skill test. The applicant for a designated flight navigator examiner shall pass a skill test on the items listed in IS: 2.5.6.1 conducted by an inspector of the CASAS who holds a current and valid flight navigator licence.
- (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 licence; and
 - (ii) Class 1 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 licence 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 2 years.
- (i) Renewal.
 - (1) Renewal will be at the discretion of the CASAS.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS: 2.6.5.1.

2.6 AIRCRAFT MAINTENANCE LICENCING

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 authorisations for:
- (1) Aviation Maintenance Technicians
 - (2) Aviation Repair Specialists
 - (3) Parachute riggers

2.6.2 Aviation Maintenance Technicians

Note: The term “Aviation Maintenance Technician” is used in this section, but under ICAO Annex 1, 4.2, the terms “Aviation Maintenance Engineer and “Aviation Maintenance Mechanic” are accepted with equal validity. In addition, these Regulations use the term “Licensed Mechanic” where the maintenance function is performed by individuals not working for an Approved Maintenance Organisation (AMO).

2.6.2.1 APPLICABILITY

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 English language 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; and
 - (4) Pass all of the prescribed tests for the license and rating sought, within a period of 24 months.

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 aircraft maintenance technician/engineer/mechanic licence shall have pass a

knowledge test covering at least the following areas:

- (1) Air law and airworthiness requirements:
 - (i) rules and regulations relevant to an aircraft maintenance technician licence holder including applicable airworthiness requirements governing certification and continuing airworthiness of aircraft and approved aircraft maintenance organization and procedures;
- (2) Natural science and aircraft general knowledge
 - (i) basic mathematics; units of measurement; fundamental principles and theory of physics and chemistry applicable to aircraft maintenance;
- (3) Aircraft engineering
 - (i) characteristics and applications of the materials of aircraft construction including principles of construction and functioning of aircraft structures, fastening techniques; powerplants and their associated systems; mechanical, fluid, electrical and electronic power sources; aircraft instrument and display systems; aircraft control systems; and airborne navigation and communication systems;
- (4) Aircraft maintenance :
 - (i) tasks required to ensure the continuing airworthiness of an aircraft including 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 and limitations relevant to the duties of an aircraft maintenance licence holder;

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) Airframe Maintenance practices and materials
 - (2) Airframe systems and structures-fixed wing
 - (3) Airframe systems and structures-rotary wing
 - (4) Airship systems and structures
- (b) The applicant for a powerplant rating shall pass a knowledge test covering at least the following areas:
 - (1) Piston engines
 - (2) Propellers
 - (3) Gas turbine engines
 - (4) Fuel systems
- (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
- (d) The applicant shall pass each section of the test before applying for the oral and practical 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 training in an ATO.

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.

(b) Approved Training. Each applicant for an AMT license relying on completion of training in an Approved Training Organization 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, plus 12 months practical work experience.
- (5) Airframe, Powerplant and Avionics ratings – 42 months in an ATO, plus 12 months practical work experience.

2.6.2.7 SKILL REQUIREMENTS

Each applicant for an AMT license or rating must pass an oral and a skill test on the license or rating he seeks. The tests cover the applicant's basic skill in performing practical projects on the subjects covered by the written 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 repair specialist (ARS) 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) A 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 authorised to perform maintenance, preventative maintenance, or modifications under an equivalent system in accordance with 9.4.1.3(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

The duration of the AMT license is two years.

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 b
 - (v) been engaged in any combination of paragraphs (a)(1)(i) through (a)(1)(iv) of this subsection; and

2.6.2.11 DISPLAY OF LICENSE

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 authorised representative of the Director CASAS.

2.6.3 *Aviation Repair Specialist*

2.6.3.1 **APPLICABILITY**

This Subpart prescribes the requirements for issuance of Aviation Repair Specialists (ARS) licenses and ratings, and the conditions under which those licenses and ratings are necessary.

2.6.3.2 **AVIATION REPAIR SPECIALIST LICENSES: ELIGIBILITY**

- (a) An applicant for an aviation repair specialist license and shall—
- (1) Be at least 18 years of age;
 - (2) Demonstrate the ability to read, write, speak, and understand the English language 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) Be 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 a approved maintenance organisation certificated under Part 6 or a 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;
 - (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.
 - (8) This section does not apply to the issuance of an aviation repair specialist license (experimental aircraft builder) under [2.6.3.5](#).

2.6.3.3 **RATINGS**

- (a) Except as specified in [2.6.3.6](#), the following ratings may be issued under this subpart:
- (1) Propeller
 - (2) Computer
 - (3) Instrument
 - (4) Accessory
 - (5) Components
 - (6) Welding
 - (7) Non Destructive Testing (NDT)
 - (8) Other as may be designated by the Authority
- (b) At no instance shall an aviation repair specialist 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 approved maintenance organisation shall coincide with the rating(s) issued at the approved maintenance organisation 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 repair specialist license be issued a rating in which the AMO has not been issued.
- (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 authorisations 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 authorisation to perform and approve for return to service maintenance under an equivalent system in Part 9, an aviation repair specialist license should correspond to the speciality 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.

2.6.3.4 AVIATION REPAIR SPECIALIST LICENSES: PRIVILEGES AND LIMITATIONS

- (a) An aviation repair specialist may perform or supervise the maintenance, preventive maintenance, or alteration of aircraft, airframes, aircraft engines, propellers, appliances, components, and parts appropriate to the designated speciality 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 authorised to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with [9.4.1.3\(a\)](#).
- (b) An aviation repair specialist may not perform or supervise duties unless the aviation repair specialist understands the current instructions of the employing certificate holder and the instructions for continued airworthiness, which relate to the specific operations concerned.
- (c) An aviation repair specialist license must be surrendered to the Authority at the time the license holder leaves the employ of the AMO or the AOC holder.

2.6.3.5 AVIATION REPAIR SPECIALIST LICENSES: EXPERIMENTAL AIRCRAFT BUILDER – ELIGIBILITY, PRIVILEGES AND LIMITATIONS

- (a) To be eligible for a aviation repair specialist license (experimental aircraft builder), an individual shall;
 - (1) Be at least 18 years of age;
 - (2) Be the primary builder of the aircraft to which the privileges of the license are applicable;
 - (3) Show to the satisfaction of the Authority that the individual has the requisite skill to determine whether the aircraft is in a condition for safe operations; and
 - (4) Be a citizen of the SURINAME or an individual citizen of a foreign country who has lawfully been admitted for permanent residence in SURINAME.
- (b) The holder of an aviation repair specialist license (experimental aircraft builder) may perform condition inspections on the aircraft constructed by the holder in accordance with the operating limitations of that aircraft.
- (c) Section [2.6.3.3](#) does not apply to the holder of an aviation repair specialist license (experimental aircraft builder) while performing under that license.

2.6.3.6 AVIATION REPAIR SPECIALIST LICENSES: EXPERIMENTAL AIRCRAFT BUILDER – RATINGS

- (a) The following rating will be issued under this subpart:
 - (1) Experimental Aircraft Builder
- (b) The following information shall be required to follow the rating:

- (1) Aircraft Make.
- (2) Aircraft Model.
- (3) Aircraft Serial Number.
- (4) Certification Date of Aircraft.

2.6.3.7 DISPLAY OF LICENSE

Each person who holds a aviation repair specialist 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 authorised representative of the Director , or local law enforcement officer.

2.6.4 Parachute Riggers

2.6.4.1 APPLICABILITY

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.

2.6.4.2 ELIGIBILITY REQUIREMENTS: GENERAL

- (a) To be eligible for a parachute rigger license, a person shall—
 - (1) Be at least 18 years of age; and
 - (2) Except as provided in [2.1.2.7](#), be able to read, speak, write, and understand the English language.
 - (3) Comply with the sections of this subpart that apply to the license and type rating he or she seeks.

2.6.4.3 LICENSE REQUIRED

- (a) No person may pack, maintain, or alter any personnel-carrying parachute intended for emergency use in connection with civil aircraft of SURINAME unless he or she holds an appropriate current license and type rating issued under this Subpart and complies with [2.6.4.10](#) through [2.6.4.13](#).
- (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 SURINAME 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 authorised representative of the Director CASAS.
- (e) The following parachute rigger licenses are issued under this part:
 - (1) Senior parachute rigger.
 - (2) Master parachute rigger.
- (f) Sections [2.6.4.10](#) through [2.6.4.13](#) do not apply to parachutes packed, maintained, or altered for the use of the armed forces.

2.6.4.4 SENIOR PARACHUTE RIGGER LICENSE: EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS

- (a) Except as provided in [2.6.4.5](#) an applicant for a senior parachute rigger license shall—

- (1) Present evidence satisfactory to the Authority that he or she has packed at least 20 parachutes of each type for which he or she seeks a rating, in accordance with the manufacturer's instructions and under the supervision of a licensed parachute rigger holding a rating for that type or a person holding an appropriate military rating;
- (2) Pass a knowledge test, with respect to a parachute applicable to at least one type parachute appropriate to the type rating sought, on—
 - (i) Construction, packing, and maintenance;
 - (ii) The manufacturer's instructions;
 - (iii) The regulations of this Subpart; and
- (3) Pass an oral and skill test showing the ability to pack and maintain at least one type of parachute appropriate to the type rating sought. See IS 2.6.4.4 for a listing of skill test subjects.

2.6.4.5 MILITARY RIGGERS OR FORMER MILITARY RIGGERS: SPECIAL LICENSING RULE

(a) Notwithstanding 2.6.4.4, the Authority shall grant to an applicant for a parachute rigger license that license if he or she passes a knowledge test on the regulations of this Subpart and presents satisfactory documentary evidence that he or she—

- (1) Is a member or civilian employee of an armed force of SURINAME, is a civilian employee of a regular armed force of a foreign country, or has, within the 12 months before he applies, been honourably 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 2.6.4.4.

2.6.4.6 MASTER PARACHUTE RIGGER LICENSE: EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS

(a) 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 an oral and skill test showing the ability to pack and maintain two types of parachutes appropriate to the type ratings sought. See IS 2.6.4.4 for a listing of skill test subjects.

2.6.4.7 TYPE RATINGS

(a) The following type ratings are issued under this subpart:

- (1) Seat.
- (2) Back.
- (3) Chest.

- (4) Lap.
- (b) The holder of a parachute rigger license who qualifies for a senior parachute rigger license is entitled to have placed on the senior parachute rigger license the ratings that were on the parachute rigger license.

2.6.4.8 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 practical 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.

2.6.4.9 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 [2.6.4.10](#) through [2.6.4.13](#) (related to facilities, equipment, performance standards, records, recent experience, and seal) in packing, maintaining, or altering (if authorised) the main parachute of a dual parachute pack to be used for intentional jumping.

2.6.4.10 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.

2.6.4.11 PERFORMANCE STANDARDS

- (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 authorised 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.

2.6.4.12 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.

2.6.4.13. 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.

2.6.4.14 DURATION OF PARACHUTE RIGGER LICENSE

The duration of the Parachute Rigger license is two years.

2.6.4.15 DISPLAY OF LICENSE

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 authorised representative of the Director CASAS.

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 licence and ratings.

2.7.2 General

- (a) An applicant shall, before being issued with an air traffic controllers licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence or rating.
- (b) An applicant shall for renewal or re-issue of a licence, rating or authorisation meet the requirements as are specified for that licence, rating or authorisation.

2.7.3 Air traffic controller licence and ratings

2.7.3.1 AIR TRAFFIC CONTROLLER LICENCE

- (a) Age. The applicant for an air traffic controller licence shall be not less than 21 years of age.
- (b) Medical. The applicant for an air traffic controller licence shall hold a Class 3 medical certificate issued under this Part.
- (c) Knowledge. The applicant for an air traffic controller licence shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an air traffic controller licence:

- (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: human performance relevant to air traffic control;

Note: Guidance material to design training programs on human performance 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 licence shall:
 - (1) have received an endorsement for the knowledge test from an authorized instructor who:

- (i) conducted the training on the knowledge areas;
- (ii) certifies that the person is prepared for the required knowledge test; and
- (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 2.7.4 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 licence is 2 years. For renewal of the licence see 2.2.3.

2.7.3.2 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; and
 - (6) area control surveillance rating.
- (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; and
 - (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; and
 - (viii) emergency and search and rescue plans; and
 - (3) approach control surveillance, approach precision radar control rating and area control surveillance rating. 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
 - (2) pass the required knowledge test.
- (d) Experience. The applicant for an air traffic controller licence 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, approach radar, area or area radar control 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; and
 - (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 CASAS. 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; and
 - (3) if the privileges of the approach radar control rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator (PPI) 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, judgement and performance required to provide a safe, orderly and expeditious control service.
- (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 licence with the following applicable rating(s) shall be:
 - (i) aerodrome control rating: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated;
 - (ii) approach control rating: to provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;
 - (iii) approach radar control rating: to provide and/or supervise the provision of approach control service with the use of radar or other surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;
 - (A) 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 licence holder is rated;
 - (v) area control rating: to provide and/or supervise the provision of area control service within the control area or portion thereof, for which the licence holder is rated; and
 - (vi) area radar control rating: to provide and/or supervise the provision of area control service with the use of radar, within the control area or portion thereof, for which the licence holder is rated.
 - (2) Before exercising the privileges indicated in (d)(1), the licence holder shall be familiar with all pertinent and current information.

- (3) A holder of an air traffic controller licence and ratings(s) shall not provide instruction in an operational environment unless the licence holder has received proper authorisation from the Authority.
- (g) Validity of ratings. A rating shall become invalid when an 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

Note: The licence can also be specified as Flight dispatcher licence.

2.8.1 Applicability

- (a) This section prescribes the requirements for the issue, renewal and re-issue of a flight operations officer licence.

2.8.2 General

- (a) An applicant shall, before being issued with a flight operations officer licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence.
- (b) An applicant shall for renewal or re-issue of a licence meet the requirements as are specified for that licence.

2.8.3 Flight operations officer licence

- (a) Age. The applicant for a flight operations officer licence shall be not less than 21 years of age.
- (b) Knowledge. The applicant for a flight operations officer licence shall receive and log training from an authorised 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 licence; 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;
 - (iii) minimum equipment list;
 - (3) Flight performance calculation and planning procedures:
 - (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;
 - (iv) basic principles of computer-assisted planning systems;
 - (4) Human performance:
 - (i) human performance relevant to dispatch duties;

Note: Guidance material to design training programs on human performance 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;
 - (v) Principles of flight: principles of flight relating to the appropriate category of aircraft;
- (8) Radio communication:
 - (i) procedures for communicating with aircraft and relevant ground stations.
- (c) The applicant for the Flight Operations Officer licence shall:
 - (1) have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) conducted the training on the knowledge areas;
 - (ii) certifies that the person is prepared for the required knowledge test; and
 - (2) pass the required knowledge test.
- (d) Experience.
 - (1) The applicant for a flight operations officer licence 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 crew member in air transportation; or
 - (B) a meteorologist in an organisation 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; or
 - (ii) at least one year as an assistant in the dispatching of air transport; or
 - (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 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 neighbourhood 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 licence.
- (f) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight operations officer licence 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 licence is 2 years. A licence shall become invalid when a flight operations officer has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the flight operations officer's ability to exercise the privileges of the licence has been re-established. For renewal of the licence see 2.2.3.

2.9 AERONAUTICAL STATION OPERATOR LICENCES

Note: This licence 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 licence.

2.9.2 General

- (a) An applicant shall, before being issued with an aeronautical station operator licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence.
- (b) An applicant shall for renewal or re-issue of a licence, rating or authorisation meet the requirements as are specified for that licence.

2.9.3 Aeronautical station operator licence

- (a) Age. The applicant for an aeronautical station operator licence shall be not less than 18 years of age.
- (b) Knowledge. The applicant for an aeronautical station operator licence shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges of an aeronautical station operator:
 - (1) General Knowledge:
 - (i) air traffic services provided within SURINAME;
 - (2) Operational Procedures:
 - (i) radiotelephony procedures; phraseology; telecommunication network;
 - (3) Rules and regulations:
 - (i) rules and regulations applicable to the aeronautical station operator;
 - (4) Telecommunication equipment:
 - (i) principles, use and limitations of telecommunication equipment in an aeronautical station
- (c) Knowledge testing. An applicant for an aeronautical station operator licence shall
 - (1) have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) conducted the training on the knowledge areas;
 - (ii) certifies that the person is prepared for the required knowledge test; and
 - (2) pass the required knowledge test.
- (d) Experience. The applicant for an aeronautical station operator licence 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 licence 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 licence shall be to act as an operator in an aeronautical station. Before exercising the privileges of the licence, 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 licence is two years. A licence shall become invalid when an aeronautical station operator has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the aeronautical station operator's ability to exercise the privileges of the licence has been re-established. For renewal of the licence see 2.2.3.

2.10 MEDICAL PROVISIONS FOR LICENSING

2.10.1 GENERAL

2.10.1.1 APPLICABILITY

This Section prescribes the requirements and procedures for issuing, renewing and re-issuing Class 1, Class 2 and Class 3 medical certificates.

2.10.1.2 MEDICAL FITNESS

- (a) The applicants for a flight crew licence and air traffic controller licence 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 licence unless they hold a current medical certificate appropriate to the licence.

2.10.1.3 AVIATION MEDICAL EXAMINERS (AME)

- (a) Subject to compliance with the requirements specified in this Part, the CASAS will designate and authorize 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 licences or ratings specified in this Part. AMEs may be designated outside of Suriname.
- (b) AMEs shall have had, or shall receive:
 - (1) Basic training in aviation medicine for Class 2 and 3 medical examinations on the subjects listed in IS 2.10.1.3. Appendix A; and
 - (2) Advance training in aviation medicine for Class 1 medical examinations on the subjects listed in IS 2.10.1.3 Appendix B.
- (c) AMEs shall acquire knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.
- (d) 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. Re-authorization will be at the discretion of the CASAS.
- (e) Having completed the medical examination of an applicant in accordance with this Section, the AME shall coordinate the results of the examination and submit a signed report, or equivalent, to the Licensing Authority, in accordance with its requirements, detailing the results of the examination and evaluating the findings with regard to medical fitness.
- (f) If the medical examination is carried out by a constituted group of AMEs, the head of the group will be appointed by the CASAS, who will be responsible for coordinating the results of the examination and signing the report.
- (g) The CASAS shall use the services of medical assessor(s) to evaluate reports submitted to the Licensing Authority to enable the Authority to audit Medical Assessments..
- (h) The medical examiner shall be required to submit medical information to the Licensing Authority to enable the Authority to audit Medical Assessments.

Note.- *The purpose of such auditing is to ensure that medical examiners meet applicable standards for good practice.*

- (i) The CASAS retains the right to reconsider any action of an AME.
- (j) Medical confidentiality shall be respected at all times.
- (k) All medical reports and records shall be securely held with accessibility restricted to authorized personnel.
- (l) When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials of the Licensing Authority.

2.10.1.4 AVIATION MEDICAL EXAMINATIONS

- (a) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the AME a declaration stating whether they have previously undergone such an examination and, if so, the date, place and result of the last examination. They shall indicate to the examiner whether a Medical Assessment has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension.
- (b) Each applicant for a medical certificate shall provide the AME with a personally certified statement of medical facts concerning personal, familial and hereditary history.
- (c) Each applicant for a medical certificate shall produce proof of identification.
- (d) Any false declaration to an AME made by an applicant for a licence or rating shall be reported to the Licensing Authority for such action as may be considered appropriate.
- (e) The applicant shall complete the appropriate application form as detailed in IS 2.10.1.4.

2.10.1.5 SPECIAL CIRCUMSTANCES

- (a) If the medical requirements prescribed in Part 2 for a particular licence are not met, the appropriate medical certificate will not be issued, renewed or 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 licence 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 licence is endorsed by the CASAS with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.
- (b) The AME shall report to the CASAS any individual case where, in the AME's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardize flight safety.

2.10.1.6 DECREASE OF MEDICAL FITNESS

Holders of licences provided for in this Part shall not exercise the privileges of their licences and related ratings at any time when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise these privileges.

- (1) A licence holder should inform the Licensing Authority of confirmed pregnancy or any decrease in medical fitness of a duration of more than 20 days or which requires continued treatment with prescribed medication or which has required hospital treatment.

2.10.1.7 USE OF PSYCHOACTIVE SUBSTANCES

- (a) Holders of licences provided for in this Part shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.
- (b) Holders of licences provided for in this Part shall not engage in any problematic use of substances.

Note: See ICAO Manual on Prevention of Problematic Use of Substances in the Aviation Workplace (Doc 9654)

2.10.1.8 MEDICAL CERTIFICATES

- (a) The medical certificate shall be in a form and manner prescribed by the CASAS. The items required on the licence are indicated in IS 2.10.1.8

(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 CASAS will issue the Class 1, 2 and 3 medical certificate.
- (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 2.10.1.5.

(c) Validity:

- (1) The validity period of the medical certificate is:
- (i) 12 months for the Class 1 for the CPL, ATPL and flight engineer licence.
- (ii) 24 months for the Class 2 for the PPL, glider pilot licence and free balloon pilot licence
- (iii) 24 months for the Class 3 for the air traffic controller licence;
- (iv) When the holders have passed their 40th birthday:
- (A) the 24th month interval specified for the PPL, glider pilot licence, free balloon and air traffic controller licence will be reduced to 12 months; and
- (B) the 12 month interval specified for the CPL and ATPL will be reduced to 6 months.
- (2) For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. For any renewal or re-issuance of a medical certificate, based on a medical examination that takes place during the period of validity of the current medical certificate, but no more than 45 days before its expiry date, the new period of validity shall begin on that date. For any renewal or re-issuance, based on a medical examination taking place after the expiry date or earlier than 45 days before the expiry date, the new period of validity shall begin on the date of the examination.

(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 certificate will be done by the CASAS.
- (3) Re-issue of the Class 1, 2 and 3 medical certificate will be done by the CASAS.

- (e) Limitation or denial
 - (1) The CASAS 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 CASAS may in accordance with 2.2.10 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.

2.10.2 MEDICAL REQUIREMENTS

REQUIREMENTS FOR MEDICAL CERTIFICATES

2.10.2.1.1 GENERAL

An applicant for a Medical Certificate issued in accordance with the this Part, shall undergo a medical examination based on the following requirements:

- (a) *physical and mental;*
- (b) *visual and colour perception; and*
- (c) *hearing.*

2.10.2.1.2 PHYSICAL AND MENTAL REQUIREMENTS

An applicant for any class of Medical Assessment shall be required to be free from:

- (a) any abnormality, congenital or acquired; or
- (b) any active, latent, acute or chronic disability; or
- (c) any wound, injury or sequelae from operation; or
- (d) any effect or side-effect of any prescribed or non-prescribed therapeutic; diagnostic or preventive 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.

Note.—Use of herbal medication and alternative treatment modalities requires particular attention to possible side-effects.

2.10.2.1.3 VISUAL ACUITY TEST REQUIREMENTS

- (a) The methods in use for the measurement of visual acuity are likely to lead to differing evaluations. To achieve uniformity, therefore, Contracting States shall ensure that equivalence in the methods of evaluation be obtained
- (b) Visual acuity tests must be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m²).
- (c) 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.

2.10.2.1.4 COLOUR PERCEPTION REQUIREMENTS

- (a) Contracting States shall use such methods of examination as will guarantee reliable testing of colour perception.
- (b) The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.

- (c) 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).
- (d) An applicant obtaining a satisfactory result as prescribed by the CASAS shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the following restriction: valid daytime only.

Note. Guidance on suitable methods of assessing colour vision is contained in the Manual of Civil Aviation medicine (Doc 8984).

Sunglasses worn during the exercise of the privileges of the licence or rating should be non-polarizing and of a neutral grey tint.

2.10.2.1.5 HEARING TEST REQUIREMENTS

Contracting states shall use methods of examination as will guarantee reliable testing of hearing.

- (a) Applicants shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.
- (b) Applicants for Class 1 medical Assessment shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every five years up to the age of 40 years, and thereafter not less than once every two years.
 - (1) Alternatively, other methods providing equivalent results may be used.
- (c) Applicants for Class 3 Medical Assessments shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years.
 - (1) Alternatively, other methods providing equivalent results may be used.
- (d) Applicants for Class 2 Medical Assessment should be tested by pure-tone audiometry at first issue of the Assessment and, after the age of 50 years, not less than once every two years.
- (e) At medical examinations, other than those mentioned in b, c and d where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice test.

Note 1: The reference zero for calibration of pure-tone audiometers used for applying 2.10.2.2.4 (a) and 2.10.2.4.4 (a) is that of the pertinent Standards of the current edition of the Audiometric Test Methods, published by the International Organization for Standardization (ISO).

Note 2: For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(A).

Note 3: For the purposes of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from point of output (lower lip of speaker) is c. 60 db(A) and that of a whispered voice c. 45 db(A). At 2 m from the speaker, the sound level 6 db(A) lower.

Note 4: Guidance on assessment of applicants who use hearing aids is contained in the Manual of Civil Aviation Medicine (Doc 8984)

Note 5: Attention is called to 2.6.1.5.1 and 2.10.1.5.1 on requirements for the issue of instrument rating to applicants who hold a private pilot licence..

CLASS 1 MEDICAL ASSESSMENT**2.10.2.2.1 CERTIFICATE ISSUE AND RENEWAL**

- (a) An applicant for a CPL aeroplane or helicopter, ATPL aeroplane or helicopter, Flight Engineer or Flight Navigator licence shall undergo an initial medical examination for the issue of a Class 1 Medical Certificate.
- (b) Except where otherwise stated in this subpart, holders of CPL aeroplane or helicopter, ATPL aeroplane or helicopter, Flight Engineer or Flight Navigator licence shall have their Class 1 Medical Certificate renewed at intervals not exceeding those specified in 2.10.1.8. (b).
- (c) A Class 1 Medical Certificate will be issued when the applicant complies with the requirements of this Part.

2.10.2.2.2 PHYSICAL AND MENTAL REQUIREMENTS

- a) 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.
- b) The applicant shall have no established medical history or clinical diagnosis of:

- (1) An organic mental disorder ;
- (2) A mental or behavioural disorder due to use of psychoactive substances ; this includes dependence syndrome induced by alcohol or other psychoactive substances ;
- (3) Schizophrenia or a schizotypal or delusional disorder
- (4) A mood (affective) disorder;
- (5) a neurotic, stress-related or somatoform disorder;
- (6) a behavioural syndrome associated with physiological disturbances or physical factors;
- (7) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
- (8) mental retardation;
- (9) a disorder of psychological development;
- (10) a behavioural or emotional disorder, with onset in childhood or adolescence; or
- (11) a mental disorder not otherwise specified;

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

Note : Mental and behavioural disorders are defined in accordance with clinical descriptions and diagnostic guidelines of the World Health Organisations as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition--- Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessments.

- c) The applicant shall have no established medical history or clinical diagnosis of any of the following:
- (1) a progressive or non-progressive disease of the nervous system, the effects of which, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (2) epilepsy; or
 - (3) any disturbance of consciousness without satisfactory medical explanation of cause;
- (d) The applicant shall not have suffered any head injury, the effects of which, are likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (e) 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 licence and rating privileges.

(1) 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 applicant's licence or rating privileges.

(2) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or ratings privileges.

Note.—Guidance on cardiovascular evaluation is contained in the Manual of Civil Aviation Medicine (Doc 8989).

(f) Electrocardiography shall form part of the heart examination for the first issue of a Medical Certificate .

(1) Electrocardiography shall be included in re-examinations of applicants over the age of 50 no less frequently than annually.

(2) Electrocardiography should be included in re-examinations of applicants between the ages of 30 and 50 no less frequently than every two years.

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 contained in the Manual of Civil Aviation Medicine (Doc 8984).

(g) The systolic and diastolic blood pressures shall be within normal limits.

(1) The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

Note 1: Guidance on the subject is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(h) There shall be no significant functional nor structural abnormality of the circulatory system.

(i) There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.

(1) - Chest radiography should form part of the initial examination.

Note.- Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.

(j) Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(k) Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(1) The use of drugs for the control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

Note.- Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation Medicine. (ICAO Doc 8984).

(l) Applicants with active pulmonary tuberculosis shall be assessed as unfit.

(1) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as unfit.

Note 1: Guidance on assessment of respiratory diseases is contained in the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: Guidance on hazards of the medication and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(m) Applicants with significant impairment of function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

(1) Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.

(n) Applicants with sequelae of disease of, or surgical intervention on, any part of the digestive tract or its adnexae, likely to cause incapacitation in flight, in particular any obstructions due to structure or compression, shall be assessed as unfit.

(1) 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 assessor, having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacitation in flight.

(o) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

(p) Applicants with insulin treated diabetes mellitus shall be assessed as unfit.

(1) Applicants with non-insulin treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

Note.- Guidance on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(q) Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

Note.- Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment.

(r) Applicants with renal or genito-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

(1) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

Note.- Guidance on urine examination and evaluation of abnormalities are contained in the Manual of Civil Aviation Medicine (Doc 8984)

(s) Applicants with sequelae of disease of or surgical procedures on the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and assesses not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(1) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(t) Applicants with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

(1) Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides evidence of clinical disease.

Note 1.- Evaluation of applicants who are seropositive for human immunodeficiency virus (HIV) requires particular attention to their mental state, including the psychological effects of the diagnosis.

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).

(u) Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

(v) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.

(1) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with (v), 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.

(w) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practise and has been determined that she is able to safely exercise the privileges of her licence and ratings.

(x) 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 applicants licence and rating privileges

Note.- Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(y) 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 licence and rating privileges.

(z) There shall be:

- (1) no disturbance of vestibular function;
- (2) no significant dysfunction of the Eustachian tubes; and
- (3) no unhealed perforation of the tympanic membranes.

(z 1) A single dry perforation of the tympanic membrane need not render the applicant unfit.

Note.- Guidance on testing of vestibular function is contained in Manual of Civil Aviation Medicine (Doc 8984).

- (aa) There shall be:
- 1) no nasal obstruction; and
 - 2) no malformation nor any disease of buccal cavity or upper respiratory tract which is likely to interfere with safe exercise of the applicant's licence and rating privileges.
- (bb) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

2.10.2.2.3 VISUAL REQUIREMENTS

The medical examination shall be based on the following requirements.

- (a) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor 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 licence and rating privileges.
- (b) 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:
- (1) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (2) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

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 CASAS. 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.

- (c) Applicants may use contact lenses to meet the requirement of (b) provided that:
- (1) the lenses are monofocal and non-tinted;
 - (2) the lenses are well tolerated; and
 - (3) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

- (d) 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.

- (1) 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 under the provisions of 2.10.1.5 is contained in the Manual of Civil Aviation Medicine (Doc 8984).

- (e) 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 licence and rating privileges.
- (f) 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 licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: N5 and N14 refer to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: An applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read 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.

- (1) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
- (g) The applicant shall be required to have normal fields of vision.
- (h) The applicant shall be required to have normal binocular function.
 - (1) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.10.2.2.4 HEARING REQUIREMENTS

- (a) 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.

(1) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.

Note 1.- It is important that the background noise is representative of the noise in the cockpit of the type of aircraft for which the applicant's licence and ratings are valid.

Note 2.- In the speech material for discrimination testing, both aviation relevant phrases and phonetically balanced words are normally used.

- (b) Alternatively, a practical hearing test conducted in flight in the cockpit of aircraft of the type for which the applicant's licence and ratings are valid may be used.

CLASS 2 MEDICAL ASSESSMENT

2.10.2.3.1 CERTIFICATE ISSUE AND RENEWAL

- (a) An applicant for a PPL(A),PPL(H), a Glider Pilot licence or a Free balloon Pilot licence shall undergo an initial medical examination for the issue of a Class 2 Medical Certificate.
- (b) Except where otherwise stated in this subpart, holders of a PPL(A), PPL(H), a Glider Pilot licence or a Free balloon Pilot licence shall have their Class 2 Medical Certificate renewed at intervals not exceeding those specified in 2.10.1.8. (b).
- (c) When the Licensing Authority is satisfied that the requirements of this section and the general provisions of 6.1 and 6.2 have been met, a Class 2 Medical Certificate shall be issued to the applicant .

2.10.2.3.2 PHYSICAL AND MENTAL REQUIREMENTS

The medical examination shall be based on the following requirements.

- (a) 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.
- (b) The applicant shall have no established medical history or clinical diagnosis of:
 - (1) An organic mental disorder ;
 - (2) A mental or behavioural disorder due to psychoactive substance use ; this includes dependence syndrome induced by alcohol or other psychoactive substances ;
 - (3) schizophrenia or schizotypal or delusional disorder;
 - (4) a mood (affective) disorder;
 - (5) a neurotic, stress- related or somatoform disorder;
 - (6) a behavioural syndrome associated with physiological disturbances or physical factors;
 - (7) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
 - (8) mental retardation;
 - (9) a disorder of psychological development;
 - (10) a behavioural or emotional disorder, with onset in childhood or adolescence; or
 - (11) a mental disorder not otherwise specified;

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

Note.- Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organisation as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition- Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be used for their application to medical assessment.

- (c) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (1) a progressive or non-progressive disease of the nervous system, the effects of which, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (2) epilepsy;
 - (3) any disturbance of consciousness without satisfactory medical explanation of cause;
- (d) The applicant shall not have suffered any head injury, the effects of which, are likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (e) 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 licence and rating privileges.
 - (1) 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 the best medical practice and is assessed not likely to interfere with the safe exercise of the applicants licence or rating privileges.

(2) 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 applicants licence or rating privileges.

Note.- Guidance on cardiovascular evaluation is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(f) Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment after the age of 40 years.

(1) Electrocardiography shall be included in re-examination of applicants after the age of 50 no less than every two years.

(2) Electrocardiography¹ should form part of the heart examination for the first issue of a Medical Assessment.

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 contained in the Manual of Civil Aviation Medicine (Doc 8984).

(g) The systolic and diastolic blood pressures shall be within normal limits.

(1) The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

Note.- Guidance on the subject is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(h) There shall be no significant functional nor structural abnormality of the circulatory system.

(i) There shall be no 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.

(1) Chest radiography should form a part of the initial and periodic examinations in cases where asymptomatic pulmonary disease can be expected.

(j) Applicants 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 practise and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(k) Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

(1) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

Note.- Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(L) Applicants with active pulmonary tuberculosis, shall be assessed as unfit.

(1) Applicants with quiescent or healed lesions, known to be tuberculous or presumably tuberculous in origin, may be assessed as unfit.

Note 1: Guidance on assessment of respiratory diseases is contained in the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: Guidance on hazards of the medications is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(m) Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.

(1) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

(n) Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacitation in flight, in particular any obstructions due to structure or compression, shall be assessed as unfit.

(1) 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 assessor, having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacitation in flight.

(o) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

(p) Applicants with insulin treated diabetes mellitus shall be assessed as unfit.

(1) 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 applicant's licence and rating privileges.

Note.- Guidance on assessment of diabetic applicants is contained in Manual of Civil Aviation Medicine (Doc 8984).

(q) Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

Note.- Sickle cell trait and other haemoglobinopathic trait are usually compatible with fit assessment..

(r) Applicants with renal or genito- urinary disease shall be assessed as unfit; unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

(1) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

Note.- Guidance on urine examination and evaluation of abnormalities are contained in the Manual of Civil Aviation Medicine.(Doc. 8984)

(s) Applicants with sequelae of disease of, or surgical procedures on, the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(1) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated

(t) Applicants with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

(1) Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

Note 1.- Evaluation of applicants who are seropositive for human immunodeficiency virus (HIV) requires particular attention to their mental state, including the psychological effects of the diagnosis.

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)

(u) Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

(v) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and contained medical supervision indicate a low-risk uncomplicated pregnancy.

(1) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with 6.4.2.22, 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.

(w) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

(x) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which are likely to interfere with the safe exercise of the applicants licence and rating privileges.

Note.- Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(y) 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 licence and rating privileges.

(z) There shall be:

- 1) no disturbance of the vestibular function;
- 2) no significant dysfunction of the Eustachian tubes; and
- 3) no unhealed perforation of the tympanic membranes.

(i) 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 Manual of Civil Aviation Medicine (Doc 8984)

(aa) There shall be:

- 1) no nasal obstruction; and
- 2) no malformation nor any disease of the buccal cavity or upper respiratory tract; which is likely to interfere with the safe exercise of the applicants licence privileges.

- (bb) Applicants with stuttering and other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

2.10.2.3.3 VISUAL REQUIREMENTS

The medical examination shall be based on the following requirements.

- (a) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor 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 licence and rating privileges.
- (b) 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:
- (1) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (2) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the CASAS. 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.

- (c) Applicants may use contact lenses to meet the requirement of (b) provided that:
- (1) the lenses are monofocal and non-tinted;
 - (2) the lenses are well tolerated; and
 - (3) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

- (d) 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.

- (e) 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 under the provisions of 2.10.1.5 is contained in the Manual of Civil Aviation Medicine (Doc 8984).

- (f) 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 licence and rating privileges.
- (g) 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. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: 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.

- (1) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
- (h) The applicant shall be required to have normal fields of vision.
- (i) The applicant shall be required to have normal binocular function.
- (1) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.10.2.3.4 HEARING REQUIREMENTS

Note.- Attention is called to 2.6.1.5.1 and 2.10.1.5.1 on requirements for the issue of instrument rating to applicants who hold a private pilot licence.

- (a) The medical examination shall be based on the following requirements.
 - (1) Applicant who are unable 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, shall be assessed as unfit.
 - (2) When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35dB at any of the frequencies 500, 1000 or 2000Hz, shall be assessed as unfit.
 - (3) An applicant who does not meet the requirements in 6.4.4.1 or 6.4.4.2 should undergo further testing in accordance with 6.3.4.1.1

2.10.2.4 CLASS 3 MEDICAL ASSESSMENT

2.10.2.4.1 CERTIFICATE ISSUE AND RENEWAL

- (a) An applicant for an Air Traffic Controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Certificate.
- (b) Except where otherwise stated in this subpart, holders of an Air Traffic Controller licence shall have their Class 3 Medical Certificate renewed at intervals not exceeding those specified in 2.10.1.8. (b).
- (c) When the licensing authority is satisfied that the requirements of this section and the general provisions of 6.1 have been met, a Class 3 Medical Certificate shall be issued to the applicant ..

2.10.2.4.2 PHYSICAL AND MENTAL REQUIREMENTS

- (a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable to perform assigned duties safely.
- (b) The applicant shall have no established medical history or clinical diagnosis of:
 - (1) An organic mental disorder ;
 - (2) A mental or behavioural disorder due to psychoactive substance use ; this includes dependence syndrome induced by alcohol or other psychoactive substances ;
 - (3) Schizophrenia or schizotypal or delusional disorder ;
 - (4) A mood (affective) disorder;
 - (5) A neurotic, stress-related or somatoform disorder;
 - (6) A behavioural syndrome associated with physiological disturbances or physical factors;
 - (7) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
 - (8) Mental retardation;
 - (9) A disorder of psychological development;
 - (10) A behavioural or emotional disorder, with onset in childhood or adolescence; or
 - (11) A mental disorder not otherwise specified;

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

Note.- Mental and behavioural 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 Behavioural Disorders, WHO 1992. This document contains detailed descriptions of diagnostic requirements which may be useful for their application to medical assessment.

- (c) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (1) a progressive or non-progressive disease of the nervous system, the effects of which, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (2) epilepsy; or
 - (3) any disturbance of consciousness without satisfactory medical explanation of cause;
- (d) The applicant shall not have suffered any head injury, the effects of which, are likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (e) 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 licence and rating privileges.
 - (1) 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 licence and rating privileges.

(2) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.

Note: Guidance on cardiovascular evaluation is contained in the Manual of Civil Aviation Medicine (Doc 8984)

(f) Electrocardiography shall form part of the heart examination for the first issue of a Medical Certificate.

(1) Electrocardiography shall be included in re-examinations of applicants after the age of 50 no less frequently than every two years.

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 contained in the Manual of Civil Aviation Medicine (Doc 8984).

(g) The systolic and diastolic blood pressures shall be within normal limits.

(1) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence privileges.

Note.- Guidance on the subject is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(h) There shall be no significant functional nor structural abnormality of the circulatory system.

(i) There shall be no disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms.

Note.- Chest radiography is usually not necessary but may be indicated in cases where asymptomatic pulmonary disease can be expected.

(j) Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

(k) Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms shall be assessed as unfit.

(1) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

Note.- Guidance on hazards of medications is contained in the Manual of Civil Aviation Medicine (Doc 8984).

(l) Applicants with active pulmonary tuberculosis shall be assessed as unfit.

(1) Applicants with quiescent or healed lesions, known to be tuberculous or presumably tuberculous in origin, may be assessed as fit.

Note 1.- Guidance on assessments of respiratory disease is contained in the Manual of Civil Aviation Medicine (Doc 8984).

Note 2.- Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation of Medicine (Doc 8984).

(m) Applicants with significant impairment of the function of gastrointestinal tract or its adnexae, shall be assessed as unfit.

(n) Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation, in particular any obstructions due to stricture or compression, shall be assessed as unfit

(1) 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 assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation.

(o) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

(p) Applicants with insulin treated diabetes mellitus shall be assessed as unfit.

(1) Applicants with non-insulin treated diabetes shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges

Note.- Guidance on assessment of diabetic applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984)..

(q) Applicants with diseases of 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 their licence and rating privileges.

(r) Applicants with renal or genito-urinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

(1) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

Note.- Guidance on urine examination and evaluation of abnormalities are contained in the Manual of Civil Aviation Medicine (Doc 8984).

(s) Applicants with sequelae of disease of, or surgical procedures on the kidneys or the genito-urinary tract, in particular 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 licence and rating privileges.

(1) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

(t) Applicants with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

(1) Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

Note 1.- Evaluation of applicants who are seropositive for human immunodeficiency virus (HIV) requires particular attention to their mental state, including the psychological effects of the diagnosis.

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)

(u) Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

(v) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.

(1) During the gestational period, precautions should be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications.

(2) For applicants with low-risk uncomplicated pregnancy, evaluated and supervised in accordance with y, the fit assessment should be limited to the period until the end of the 34th week of gestation.

(w) Following confinement or termination of pregnancy the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and rating privileges.

(x) 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 licence and rating privileges.

Note.- Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.

(y) 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 licence and rating privileges.

(z) There shall be no malformation nor any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

- (aa) Applicants with stuttering or other speech defects sufficiently to cause impairment of speech communication shall be assessed as unfit.

2.10.2.4.3 VISUAL REQUIREMENTS

The medical examination shall be based on the following requirements.

- (a) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor 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 licence and rating privileges.
- (b) 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:
- (1) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (2) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the CASAS. 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.

- (c) Applicants may use contact lenses to meet the requirement of (b) provided that:
- (1) the lenses are monofocal and non-tinted;
 - (2) the lenses are well tolerated; and
 - (3) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

Note: Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.

- (d) 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.

- (e) 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 under the provisions of 2.10.1.5 is contained in the Manual of Civil Aviation Medicine (Doc 8984).

- (f) 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 licence and rating privileges.
- (g) 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 correction already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the

privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

Note 1: N5 and N14 refer to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).

Note 2: An applicant who needs near correction to meet the requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read radar screens, visual displays and written or printed material, and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties. However it should be realized that single-vision near correction significantly reduces distant visual acuity.

Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the airtraffic control duties the applicant is likely to perform.

(1) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.

- (h) The applicant shall be required to have normal fields of vision.
- (i) The applicant shall be required to have normal binocular function.
 - (1) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.10.2.4.4 HEARING REQUIREMENTS

- (a) 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.

(1) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.

Note 1.- The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4800 Hz (speech frequency range) is adequately represented.

Note 2.- In the speech material for discrimination testing, both aviation relevant phrases and phonetically balanced words are normally used.

- (2) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.

CIVIL AVIATION REGULATIONS

SURINAME

PART 2 – IMPLEMENTING STANDARDS

SURINAME

VERSION 4.0

June 2006

IS 2.2.1 Issue, renewal and re-issue of licences, ratings, authorisations, designations and certificates

- (a) Issue, renewal and re-issue of licences, ratings, authorisations, designations and certificates will take place when the applicant meets the requirements of Part 2 for issue, renewal and re-issue for these licences, ratings authorisations and certificates.
- (b) Issue, renewal and re-issue of licences, ratings, authorisations, designations and certificates will be performed by the CASAS.
- (c) Application for the issue, renewal and re-issue of licences, ratings, authorisations, designations or certificates by the CASAS shall be done by submitting to the CASAS a properly filled out form, which form can be obtained from the CASAS. This form must be submitted to the CASAS at least 14 days before the expiry date.

IS 2.2.4.3 PROCEDURES FOR VALIDATION AND CONVERSION OF LICENCES OR CERTIFICATES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE.

- (a) The CASAS that issues a converted licence based on a licence or certificate from another Contracting State remains responsible for the converted licence.
- (b) The CASAS should, before making the agreement mentioned in 2.2.4.3 (a)(3) be convinced, that the other Contracting State issues licences or certificates 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 SURINAME, or from another Contracting State delegated by the authority of State, 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 State. 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.
- (d) An Air Law test must be arranged if the Air Law system of SURINAME is different from the Air Law system from the other Contracting State.
- (e) Renewal and re-issue of the validation certificate or the converted licences and ratings:
 - (1) when examiners are available in SURINAME to perform proficiency checks for the renewal of rating(s) or skill tests for the re-issue of the licence or rating(s), these tests/checks will be performed by the authorized examiners of SURINAME;
 - (2) when examiners are not available in SURINAME to perform proficiency checks for the renewal of the rating(s) or skill test for the re-issue of the licence or rating(s), the availability of examiners for these tests/checks from the other Contracting State can be arranged in the agreement mentioned in 2.2.4.3 (a)(3).
- (f) Application for the validation certificate and the conversion of a licence or certificate from another Contracting State shall be done by submitting to the CASAS a properly filled out form, which form can be obtained from the CASAS.
- (g) The valid licence or certificate from the other Contracting State and the record (e.g. logbook) must be presented to the CASAS
- (h) The applicant shall hold a medical certificate relevant to the licence or certificate applied for and this medical certificate will be issued by the CASAS, when the applicant complies with the requirements of this Part. 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 2.2.5.1 CREDIT FOR MILITARY PILOTS

- (a) Requirements for a military pilot to meet the requirements of 2.2.5.1.

- (b) Military pilots on active flying status within the past 12 months. The holder of a military pilot licence (or certificate) who has been on active flying status within the 12 months 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 licence (or certificate) on active flying status in an armed force of SURINAME.
- (c) Aircraft category, class and type ratings. The CASAS may issue to the holder of a military pilot licence (or certificate) an aircraft category, class or type rating to a commercial pilot licence if the pilot present documentary evidence that shows satisfactory accomplishment of:
- (1) A military pilot check and instrument proficiency check of SURINAME 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 licence (or certificate) may apply for an aeroplane or helicopter instrument rating to be added to his or her commercial pilot licence 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 SURINAME in the aircraft category for the instrument rating sought; and
 - (2) Received authorisation from an armed force of SURINAME to conduct IFR flights on airways in that aircraft category and class for the instrument rating sought.
- (e) Aircraft type rating. The CASAS will issue an aircraft type rating only for aircraft types that the CASAS has certified for civil operations.
- (f) Aircraft type rating placed on an airline transport pilot licence. The CASAS may issue to the holder of a military pilot licence (or certificate) who holds an airline transport pilot licence 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 licence level; and
 - (2) Passed an official military pilot of SURINAME 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 CASAS 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 SURINAME;
 - (3) At least one of the following:
 - (i) An order of an armed force of SURINAME 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 SURINAME 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 SURINAME.
 - (5) An official armed force of SURINAME 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 2.2.7 Language proficiency

- (a) General
- (1) To meet the language proficiency requirements contained in 2.2.7, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the CASAS, 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. Manages the speaker/listener relationship effectively.
- (6) Expert Level (Level 6)
- (i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
 - (ii) Structure: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.

- (iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.
- (iv) Fluency: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to 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 2.2.9 Format of the licence

- (a) The following details shall appear on the licence and the numbering scheme shall be in Roman numerals:
 - I) Name of State (in bold type);
 - II) Title of licence (in very bold type);
 - III) Serial number of the licence, in Arabic numerals;
 - IV) Name of holder in full (in Roman alphabet also if script of national language is other than Roman)
 - IVa) and date of birth;
 - V) Address of holder;
 - VI) Nationality of holder;
 - VII) Signature of holder;
 - VIII) CASAS and, where appropriate, all conditions under which the licence is issued;
 - IX) Certification concerning validity and authorisation;
 - X) Signature of officer issuing the licence and the date of such issue;
 - XI) Seal or stamp of CASAS issuing licence;
 - 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 an endorsement of language proficiency;
 - XIV) Any other details desired by SURINAME in issuing the licence.

Note: Item (6) Nationality is presumed to be citizenship of the licence 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 2.2.6.1 and 2.3.1.6, each person shall enter the following information for each flight or lesson logged:
 - (1) Personal details:
 - (i) Name and 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 synthetic flight trainer session:
 - (i) Type and qualification number of flight trainer
 - (ii) Synthetic flight trainer instruction
 - (iii) Date

- (iv) Total time of session
- (4) 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 licence may log as PIC time all that flight time during which that person is:
 - (A) The sole manipulator of the controls of an aircraft for which the pilot is rated; and
 - (B) Acting as PIC of an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.
 - (ii) An 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 synthetic flight trainer.
 - (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 AUTHORISATION

- (a) The Authority will issue a Category II or Category III pilot authorisation by letter, as a part of an applicant's instrument rating or airline transport pilot certificate.
- (b) Upon original issue the authorisation 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 authorisation document.
- (c) To remove the limitations on a Category II or Category III pilot authorisation—
 - (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 authorisation.
- (d) An authorisation holder or an applicant for an authorisation may use a flight simulator or flight training device if it is approved by the Authority for such use, to meet the experience requirement of paragraph (e)

of this subsection, or for the practical test required by Part 2 for a Category II or a Category III pilot authorisation, as applicable.

- (e) Category II: practical test requirements.
- (1) An applicant for the following authorisations shall pass a skill test:
 - (i) Issuance or renewal of a Category II pilot authorisation.
 - (ii) The addition of another type aircraft to a Category II pilot authorisation.
 - (2) To be eligible for the skill test for an authorisation under this subsection, an applicant shall—
 - (i) Meet the requirements of 2.3.2.5; and
 - (ii) If the applicant has not passed a practical test for this authorisation during the 12 calendar months preceding the month of the test—
 - Meet the requirements of 8.4.1.10; and
 - 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 authorised for Category II operations;
 - (iii) To the decision height authorised 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—
 - Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and
 - 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 authorisation 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 authorisation is sought or in an approved flight simulator that—
 - Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and
 - 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 authorisation 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 authorisation 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 authorisation.
 - (ii) The addition of another type of aircraft to a Category III pilot authorisation.
 - (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 authorisation during the 12 calendar months preceding the month of the test,
 - Meet the requirements of [8.4.1.10](#) and [8.10.1.20](#), [8.10.1.32](#); and
 - 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 authorised for Category III operations;
 - (iv) To the alert height or decision height, as applicable, authorised 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—
 - Represents an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought; and

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—
 - Unexpected deterioration of conditions to less than minimum RVR during approach, flare, and rollout;
 - Demonstration of expected visual references with weather at minimum conditions;
 - The expected sequence of visual cues during an approach in which visibility is at or above landing minima; and
 - 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 authorisation 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 authorisation is sought, or in an approved flight simulator that—
 - Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and
 - 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 authorisation 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 authorisation 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 2.3.2.4 APPENDIX A: CLASS/TYPE RATING (SPA AND MPA) – KNOWLEDGE

- (a) The knowledge instruction and test for the type rating for multi-pilot - aeroplane shall include the following subjects:
 - (1) Aeroplane structure and equipment, normal operation of systems and malfunctions
 - (i) Dimensions
 - (ii) Engine including auxiliary power unit
 - (iii) Fuel system
 - (iv) Pressurisation and air-conditioning
 - (v) Ice protection, windshield wipers and rain repellent
 - (vi) Hydraulic systems
 - (vii) Landing gear
 - (viii) Flight controls, lift devices
 - (ix) Electrical power supply
 - (x) Flight instruments, communication, radar and navigation equipment
 - (xi) Cockpit, cabin and cargo compartment
 - (xii) Emergency equipment
 - (2) Limitations:
 - (i) General limitations
 - (ii) Engine limitations
 - (iii) System limitations
 - (iv) Minimum equipment list
 - (3) Performance, flight planning and monitoring
 - (4) Load, balance and servicing
 - (i) Load and balance
 - (ii) Servicing on the ground
 - (5) Emergency procedures
 - (6) Special requirements for extension of a type rating for instrument approaches down to a decision height of less than 200 ft (60m)

- (i) Airborne and ground equipment: technical requirements, operational requirements, operational reliability, fail operational, fail-passive, equipment reliability, operating procedures, preparatory measures, operational downgrading, communications
- (ii) Procedures and limitations: operational procedures, crew co-ordination
- (7) Special requirements for “glass cockpit” aeroplane with electronic flight instrument systems (e.g. EFIS, EICAS)
- (8) Flight Management systems (FMS)

IS 2.3.2.4 APPENDIX B: FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK - CRM

- (a) The flight instruction, skill test and proficiency for CRM for the multi-pilot type rating – aeroplane and helicopter shall include the following subjects:
 - (1) The training programme:
 - (i) An initial indoctrination/awareness segment;
 - (ii) A method to provide recurrent practice and feedback; and
 - (iii) A method of providing continuing reinforcement
 - (2) Topics to be contained in an initial CRM training course:
 - (i) Communications processes and decision behaviour;
 - (ii) Internal and external influences on interpersonal communications;
 - (iii) Barriers to communication;
 - (iv) Listening skills;
 - (v) Decision making skills
 - (vi) Effective briefings;
 - (vii) Developing open communications;
 - (viii) Inquiry, advocacy and assertion training;
 - (ix) Crew self-critique;
 - (x) Conflict resolution;
 - (xi) Team building and maintenance;
 - (xii) Leadership and followership training;
 - (xiii) Interpersonal relationships;
 - (xiv) Workload management;
 - (xv) Situational awareness
 - (xvi) How to prepare, plan and monitor task completions;
 - (xvii) Workload distribution;
 - (xviii) Distraction avoidance;
 - (xix) Individual factors; and
 - (xx) Stress reduction.

IS 2.3.3.1 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING

- (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 2.3.3.1.1 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 pre-flight planning and preparation, powerplant operation and aircraft systems
 - (2) Taxiing, or surface operations, including runups
 - (3) Take-offs and landings, including normal and crosswind
 - (4) Straight and level flight and turns in both directions
 - (5) Climbs and climbing turns
 - (6) Aerodrome traffic patterns including entry and departure procedures
 - (7) Collision avoidance, windshear avoidance and wake turbulence avoidance
 - (8) Descents, with and without turns, using high and low drag configurations
 - (9) Flight at various airspeeds 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 2.3.3.1.2 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 pre-flight planning and preparation, powerplant operation and aircraft systems;
 - (2) Taxiing, or surface operations, including runups;
 - (3) Take-offs and landings, including normal and crosswind;
 - (4) Straight and level flight and turns in both directions;
 - (5) Climbs and climbing turns;
 - (6) Aerodrome traffic patterns including entry and departure procedures;
 - (7) Collision avoidance, windshear avoidance and wake turbulence avoidance;
 - (8) Descents, with and without turns, using high and low drag configurations
 - (9) Flight at various airspeeds;
 - (10) Emergency procedures and equipment malfunctions;
 - (11) Ground reference manoeuvres;
 - (12) Approaches to the landing area;
 - (13) Hovering and hovering turns
 - (14) Go-arounds;
 - (15) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to hover
 - (16) Rapid decelerations
 - (17) Simulated one-engine-inoperative approaches and landings for multi-engine helicopters (ME)

IS 2.3.3.1.3 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 pre-flight planning and preparation, powerplant operation and aircraft systems;
 - (2) Taxiing, or surface operations, including runups;
 - (3) Take-offs and landings, including normal and crosswind;
 - (4) Straight and level flight and turns in both directions;
 - (5) Climbs and climbing turns;
 - (6) Aerodrome traffic patterns including entry and departure procedures;
 - (7) Collision avoidance, windshear avoidance and wake turbulence avoidance;
 - (8) Descents, with and without 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; and
 - (17) Simulated one-engine-inoperative approaches and landings for multi-engine powered-lift (ME)

IS 2.3.3.1.4 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 pre-flight planning and preparation, powerplant operation and aircraft systems;
 - (2) Taxiing, or surface operations, including runups;
 - (3) Take-offs and landings, including normal and crosswind;
 - (4) Straight and level flight and turns in both directions;
 - (5) Climbs and climbing turns;
 - (6) Aerodrome traffic patterns including entry and departure procedures;
 - (7) Collision avoidance, windshear avoidance and wake turbulence avoidance;
 - (8) Descents, with and without 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; and
 - (13) Landings with positive and with negative static trim.

IS 2.3.3.1.5 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 pre-flight 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 2.3.3.1.6 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 pre-flight 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 2.3.3.2 PRIVATE PILOT: FLIGHT INSTRUCTION AND SKILL TEST

IS 2.3.3.2.1 PRIVATE PILOT LICENCE: AEROPLANE CATEGORY – FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the single-engine and multi-engine private pilot licence – aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 1: When (SE) is indicated the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraph is only for multi-engine. When nothing is indicated the item or paragraph is for single-engine and multi-engine.

Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated the item is for land and seaplanes.

- (1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Licences and documents
 - (ii) Airworthiness requirements
 - (iii) Weather information
 - (iv) Cross-country flight planning
 - (v) National airspace system
 - (vi) Performance and limitations
 - (vii) Operation of system
 - (viii) Principles of flight
 - (ix) Water and Seaplane Characteristics (S)
 - (x) Seaplane bases, maritime rules and aids to marine navigation (S)
 - (xi) Aeromedical factors
- (2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection
 - (ii) Cockpit management
 - (iii) Engine Starting
 - (iv) Taxiing (L)
 - (v) Taxiing and Sailing (S)
 - (vi) Before take-off 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) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--
 - (i) Normal and crosswind take-off and climb
 - (ii) Normal and crosswind approach and landing
 - (iii) Soft-field take-off and climb (SE) (L)
 - (iv) Soft-field approach and landing (SE) (L)
 - (v) Short-field (Confined area (S)) take-off and maximum performance climb
 - (vi) Short-field approach (Confined area (S)) and landing
 - (vii) Glassy Water take-off and climb (S)
 - (viii) Glassy water approach and landing (S)
 - (ix) Rough water take-off 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 take-off before V_{mc} (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) V_{mc} 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 2.3.3.2.2 PRIVATE PILOT LICENCE: HELICOPTER CATEGORY – FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the private pilot licence - helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

- (1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Licences and documents
 - (ii) Weather information
 - (iii) Cross-country flight planning
 - (iv) National airspace system
 - (v) Performance and limitations
 - (vi) Operation of system
 - (vii) Minimum equipment list
 - (viii) Aeromedical factors
- (2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection
 - (ii) Cockpit management
 - (iii) Engine Starting and rotor engagement
 - (iv) Before take-off 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 take-off and landing
 - (ii) Slope operations
 - (iii) Surface taxi
 - (iv) Hover taxi
 - (v) Air taxi
- (5) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--
 - (i) Normal and crosswind take-off and climb
 - (ii) Normal and crosswind approach
 - (iii) Maximum performance take-off and climb
 - (iv) Steep approach
 - (v) Rolling take-off
 - (vi) Shallow approach and running/roll-on landing
 - (vii) Go-around
- (6) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks--
 - (i) Rapid deceleration
 - (ii) Straight in autorotation
- (7) Navigation; including the applicant's knowledge and performance of the following tasks--
 - (i) Pilotage and dead reckoning
 - (ii) Radio navigation and radar services
 - (iii) Diversion
 - (iv) Lost procedures
- (8) Emergency operations; including the applicant's knowledge and performance of the following tasks--

- (i) Power failure at a hover
- (ii) Power failure at altitude
- (iii) Systems and equipment malfunctions
- (iv) Settling-with-power
- (v) Low rotor RPM recovery
- (vi) Dynamic rollover
- (vii) Ground resonance
- (viii) Low G conditions
- (ix) Emergency equipment and survival gear
- (9) Night operation; including the applicant's knowledge and performance of the following tasks--
 - (i) Physiological aspects of night flying
 - (ii) Lighting and equipment for night flying
- (10) Post-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) After landing and securing

IS 2.3.3.2.3 PRIVATE PILOT LICENCE: POWERED-LIFT CATEGORY– FLIGHT INSTRUCTION AND SKILL TEST

Reserved.

IS 2.3.3.2.4 PRIVATE PILOT LICENCE: AIRSHIP CATEGORY– FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the private pilot licence- airship category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight 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) Pre-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Pre-flight inspection;
 - (ii) Cockpit management;
 - (iii) Engine starting;
 - (iv) Unmasting and positioning for takeoff
 - (v) Ground handling
 - (vi) Before takeoff check.
 - (3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals;
 - (ii) Traffic patterns
 - (iii) Airport and runway markings and lighting.
 - (4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
 - (i) Ground weigh-off;
 - (ii) Up-ship takeoff;

- (iii) Wheel takeoff;
 - (iv) Approach and landing;
 - (v) Go-around.
- (5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight
 - (ii) Ascents and descents;
 - (iii) Level turns;
 - (iv) In-flight weigh-off
 - (v) Manual pressure control;
 - (vi) Static and dynamic trim.
 - (6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Rectangular course;
 - (ii) Turns around a point.
 - (7) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Pilotage and dead reckoning;
 - (ii) Navigation systems and radar services;
 - (iii) Diversion;
 - (iv) Lost procedures.
 - (8) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Engine fire during flight;
 - (ii) Envelope emergencies
 - (iii) Free ballooning;
 - (iv) Ditching and emergency landing;
 - (v) Systems and equipment malfunctions.
 - (9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Masting;
 - (ii) Post-masting.

IS 2.3.3.2.5 PRIVATE PILOT LICENCE: BALLOON CATEGORY – FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the private pilot licence – balloon category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight 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) Pre-flight 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) Pre-flight 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;
 - (iv) Contour flying;
 - (v) Obstacle clearance;
 - (vi) Tethering;
 - (vii) Winter flying;
 - (viii) Mountain flying.
 - (6) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Navigation.
 - (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) Refueling.

IS 2.3.3.2.6 PRIVATE PILOT LICENCE – GLIDER CATEGORY – FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the private pilot licence – glider category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Operation of systems;
 - (iv) Performance and limitations;
 - (v) Aeromedical factors.

- (2) Pre-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Assembly;
 - (ii) Ground handling;
 - (iii) Pre-flight 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 2.3.3.3 COMMERCIAL PILOT LICENCE: FLIGHT INSTRUCTION AND SKILL TEST

IS 2.3.3.3.1 COMMERCIAL PILOT LICENCE: AEROPLANE CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and 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) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Licences and documents
 - (ii) Airworthiness requirements
 - (iii) Weather information
 - (iv) Cross-country flight planning
 - (v) National airspace system
 - (vi) Performance and limitations
 - (vii) Operation of system
 - (viii) Principles of flight (ME)
 - (ix) Water and Seaplane characteristics (S)
 - (x) Seaplane bases, maritime rules and aids to marine navigation (S)
 - (xi) Aeromedical factors
- (2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection
 - (ii) Cockpit management
 - (iii) Engine Starting

- (iv) Taxiing (L)
- (v) Taxiing and sailing (S)
- (vi) Before take-off 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) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--
 - (i) Normal and crosswind take-off and climb
 - (ii) Normal and crosswind approach and landing
 - (iii) Soft-field take-off and climb (SE)
 - (iv) Soft-field approach and landing (SE)
 - (v) Short-field (Confined area (S)) take-off and maximum performance climb
 - (vi) Short-field (Confined area (S)) approach and landing
 - (vii) Glassy water take-off and climb (S)
 - (viii) Glassy water approach and landing (S)
 - (ix) Rough water take-off 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 take-off before V_{mc} (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 2.3.3.3.2 COMMERCIAL PILOT LICENCE HELICOPTER CATEGORY – FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the commercial pilot licence – helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Licences and documents
 - (ii) Weather information
 - (iii) Cross-country flight planning
 - (iv) National airspace system
 - (v) Performance and limitations
 - (vi) Operation of system
 - (vii) Minimum equipment list
 - (viii) Aeromedical factors
 - (ix) Physiological aspects of night flying
 - (x) Lighting and equipment for night flying
 - (2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection
 - (ii) Cockpit management
 - (iii) Engine Starting and rotor engagement
 - (iv) Before take-off 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 take-off and landing
- (ii) Slope operations
- (iii) Surface taxi
- (iv) Hover taxi
- (v) Air taxi
- (5) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--
 - (i) Normal and crosswind take-off and climb
 - (ii) Normal and crosswind approach and landing
 - (iii) Maximum performance take-off and climb
 - (iv) Steep approach
 - (v) Rolling take-off
 - (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 2.3.3.3.3 COMMERCIAL PILOT LICENCE – POWERED-LIFT CATEGORY: FLIGHT INSTRUCTION AND SKILL TEST

Reserved.

IS 2.3.3.3.4 COMMERCIAL PILOT LICENCE – AIRSHIP CATEGORY: FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the commercial pilot licence – airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Technical subjects, including the applicant's knowledge and performance of the following tasks—
 - (i) Aeromedical factors;
 - (ii) Visual scanning and collision avoidance;
 - (iii) Use of distractions during flight training;
 - (iv) Principles of flight;
 - (v) Airship weight-off, ballast, and trim;
 - (vi) Night operations;
 - (vii) Regulations and publications;
 - (viii) National airspace system;
 - (ix) Logbook entries and licence endorsement.
 - (2) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Cross-country flight planning;
 - (iv) Performance and limitations;
 - (v) Operations of systems.
 - (3) Pre-flight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvre lesson.
 - (4) Pre-flight 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) Mastig;
 - (ii) Post-masting.

IS 2.3.3.3.5 COMMERCIAL PILOT LICENCE – BALLOON CATEGORY: FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the commercial pilot licence – 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 licence endorsement;
- (2) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Flight planning;
 - (iv) Performance and limitations;
 - (v) Operations of systems.
- (3) Pre-flight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvre lesson.
- (4) Pre-flight 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) Pre-flight 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 2.3.3.3.5 COMMERCIAL PILOT LICENCE – GLIDLER CATEGORY: FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the commercial pilot licence – glider category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Operation of systems;
 - (iv) Performance and limitations;
 - (v) Aeromedical factors.
 - (2) Pre-flight procedures, including the applicant's knowledge and performance of the following tasks—

- (i) Assembly;
 - (ii) Ground handling;
 - (iii) Pre-flight 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 2.3.3.4.1 AIRLINE TRANSPORT PILOT LICENCE AND AIRCRAFT TYPE RATING: AEROPLANE CATEGORY- FLIGHT INSTRUCTION AND SKILL TEST

- (a) The flight instruction and skill test for the airline transport pilot licence - aeroplanes shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Equipment examination
 - (ii) Performance and limitations
 - (2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection
 - (ii) Powerplant start
 - (iii) Taxiing
 - (iv) Before takeoff checks
 - (3) Take-offs and departure phase; including the applicant's knowledge and performance of the following tasks--
 - (i) Normal takeoffs with different flap settings, including expedited take-off
 - (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.
- (7) Normal and abnormal procedures
- (8) Emergency procedures
- (9) Post-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) After landing procedures
 - (ii) Parking and securing

**IS 2.3.3.4.2 AIRLINE TRANSPORT PILOT LICENCE AND AIRCRAFT TYPE RATING: HELICOPTER CATEGORY --
FLIGHT ISTRUCTION AND SKILL TEST**

- (a) The flight instruction and skill test for the airline transport pilot licence for helicopters shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
 - (1) Pre-flight preparations and checks; including the applicant's knowledge and performance of the following tasks--
 - (i) Equipment examination
 - (ii) Performance and limitations
 - (2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection
 - (ii) Powerplant startt
 - (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--
 - After landing procedures
 - Parking and securing

IS 2.3.3.4.3 AIRLINE TRANSPORT PILOT LICENCE AND AIRCRAFT TYPE RATING: POWERED-LIFT CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

Reserved.

IS 2.3.3.5 INSTRUMENT RATING - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

- (a) The flight instruction, 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) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Weather information
 - (ii) Cross-country flight planning
- (2) Pre-flight 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
- (6) Instrument approach procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Non-precision instrument approach
 - (ii) Precision ILS instrument approach
 - (iii) Missed approach
 - (iv) Circling approach
 - (v) Landing from a straight-in or circling approach
- (7) 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
- (8) Post-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Checking instruments and equipment

IS 2.3.4.2: FLIGHT INSTRUCTOR - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

IS 2.3.4.2.1: FLIGHT INSTRUCTOR: AEROPLANE CATEGORY - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

- (a) The flight instruction, 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:

Notes:

(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.

(2) When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated the item is for land and seaplanes.

- (1) Fundamentals of instruction; including the applicant's knowledge and performance of the following tasks--
 - (i) The learning process
 - (ii) The teaching process
 - (iii) Teaching methods

- (iv) Evaluation
 - (v) Flight instructor characteristics and responsibilities
 - (vi) Human factors
 - (vii) Planning instructional activity
- (2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--
- (i) Aeromedical factors
 - (ii) Visual Scanning and collision avoidance
 - (iii) Principles of flight
 - (iv) Aeroplane flight controls
 - (v) Aeroplane weight and balance
 - (vi) Navigation and flight planning
 - (vii) Night operations
 - (viii) High altitude operations
 - (ix) Regulations and publications
 - (x) Use of minimum equipment list
 - (xi) National airspace system
 - (xii) Navigation aids and radar services
 - (xiii) Logbook entries and licence endorsements
 - (xiv) Water and seaplane characteristics (S)
 - (xv) Seaplane bases, rules and aids to marine navigation (S)
- (3) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
- (i) Licences and documents
 - (ii) Weather information
 - (iii) Operation of systems (SE)
 - (iv) Performance and limitations (SE)
 - (v) Airworthiness requirements
- (4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--
- (i) Manoeuvre lesson
- (5) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
- (i) Pre-flight inspection
 - (ii) Cockpit management
 - (iii) Engine starting
 - (iv) Taxiing (L)
 - (v) Taxiing (S)
 - (vi) Sailing (S)
 - (vii) Before take-off 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) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--
- (i) Normal and crosswind take-off and climb

- (ii) Short field (Confined area (S)) take-off and maximum performance climb
 - (iii) Soft field take-off and climb (SE)
 - (iv) Glossy water take-off and climb (S)
 - (v) Rough water take-off and climb (S)
 - (vi) Normal and crosswind approach and landing
 - (vii) Slip to a landing (SE)
 - (viii) Go-around/rejected landing
 - (ix) Short field (Confined area (S)) approach and landing
 - (x) Soft field approach and landing (SEL)
 - (xi) Power-off 180 degrees accuracy approach and landing (SEL)
 - (xii) Glassy water approach and landing (S)
 - (xiii) Rough water approach and landing (S)
- (8) Fundamentals of flight; including the applicant's knowledge and performance of the following tasks--
- (i) Straight-and-level flight;
 - (ii) Level turns;
 - (iii) Straight climbs and climbing turns;
 - (iv) Straight descents and descending turns.
- (9) Performance manoeuvres ; including the applicant's knowledge and performance of the following tasks--
- (i) Steep turns;
 - (ii) Steep spirals (SE);
 - (iii) Chandelles (SE);
 - (iv) Lazy eights (SE).
- (10) Ground reference manoeuvres; including the applicant's knowledge and performance of the following tasks--
- (i) Rectangular course;
 - (ii) S-turns across a road;
 - (iii) Turns around a point;
 - (iv) Eights on pylons (SE).
- (11) Slow flight, stalls and spins; including the applicant's knowledge and performance of the following tasks--
- (i) Manoeuvring during slow flight;
 - (ii) Power-on stalls (proficiency);
 - (iii) Power-off stalls (proficiency);
 - (iv) Crossed-control stalls (demonstration) (SE);
 - (v) Elevator trim stalls (demonstration) (SE);
 - (vi) Secondary stalls (demonstration) (SE);
 - (vii) Spins (SEL).
- (12) Basic instrument manoeuvres; including the applicant's knowledge and performance of the following tasks--
- (i) Straight-and-level flight;
 - (ii) Constant airspeed climbs;
 - (iii) Constant airspeed descents;
 - (iv) Turns to headings;
 - (v) Recovery from unusual flight attitudes.
- (13) Emergency operations (SE); including the applicant's knowledge and performance of the following tasks--

- (i) Emergency approach and landing (simulated);
 - (ii) Systems and equipment malfunctions;
 - (iii) Emergency equipment and survival gear.
- (14) Emergency operations (ME); including the applicant's knowledge and performance of the following tasks--
- (i) Systems and equipment malfunctions;
 - (ii) Engine failure during take-off before V_{mc};
 - (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) V_{mc} 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).

IS 2.3.4.2.2: FLIGHT INSTRUCTOR: HELICOPTER CATEGORY - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

(a) The flight instruction, 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) Aero medical factors;
 - (ii) Visual Scanning and collision avoidance;
 - (iii) Use of distractions during flight training;
 - (iv) Principles of flight;
 - (v) Helicopter flight controls;

- (vi) Helicopter weight and balance;
 - (vii) Navigation and flight planning;
 - (viii) Night operations;
 - (ix) Regulations and publications;
 - (x) Use of minimum equipment list;
 - (xi) National airspace system;
 - (xii) Logbook entries and licence endorsements;
- (3) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
- (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Operation of systems;
 - (iv) Performance and limitations;
 - (v) Airworthiness requirements.
- (4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--
- (i) Manoeuvre lesson.
- (5) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
- (i) Pre-flight inspection;
 - (ii) Cockpit management;
 - (iii) Engine starting and rotor engagement;
 - (iv) Before take-off 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 take-off 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;
 - (viii) 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.

IS 2.3.4.2.3: FLIGHT INSTRUCTOR: POWERED-LIFT CATEGORY - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

Reserved.

IS 2.3.4.2.4: FLIGHT INSTRUCTOR: AIRSHIP CATEGORY - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

(a) The flight instruction, 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 licence endorsement.
- (3) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—
- (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Cross-country flight planning;
 - (iv) Performance and limitations;
 - (v) Operations of systems.
- (4) Pre-flight lesson on a manoeuvre to be performed in flight, including the applicant's and performance of the following tasks—
- (i) Manoeuvre lesson.
- (5) Pre-flight procedures, including the applicant's knowledge and performance of the following tasks—
- (i) Pre-flight 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) Mastings;
 - (ii) Post-masting.

IS 2.3.4.2.5: FLIGHT INSTRUCTOR: BALLOON CATEGORY - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

Note: When (BH) is indicated, the item is for hot air balloons only. When (BG) is indicated, the item is for gas balloons.

- (a) The flight instruction, skill test and proficiency check for the flight instructor licence 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:
 - (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 licence endorsement.
 - (3) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Cross-country flight planning;
 - (iv) Performance and limitations;

- (v) Operations of systems.
- (4) Pre-flight lesson on a manoeuvre to be performed in flight, including the applicant's and performance of the following tasks—
 - (i) Manoeuvre lesson.
- (5) Pre-flight 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) Pre-flight 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.
- (9) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Navigation.
- (10) 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.
- (11) 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 2.3.4.2.6: FLIGHT INSTRUCTOR: GLIDER CATEGORY - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK.

- (a) The flight instruction, 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 licence endorsements.
 - (3) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--
 - (i) Licences and documents;
 - (ii) Weather information;
 - (iii) Operation of systems;
 - (iv) Performance and limitations.
 - (4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--
 - (i) Manoeuvre lesson.
 - (5) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Assembly;
 - (ii) Ground handling;
 - (iii) Pre-flight 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.

IS 2.3.4.2.7: FLIGHT INSTRUCTOR FOR INSTRUMENT RATINGS (A, H, AND PL) – FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

- (a) The flight instruction, 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:

Notes:

(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.

(2) When (A) is indicated the item or paragraph is only for Aeroplane. When (H) is indicated the item or paragraph is only for Helicopter. When nothing is indicated the item and the paragraph are for all categories.

- (1) Fundamentals of instructing; including the applicant's knowledge and performance of the following tasks--
 - (i) The learning process
 - (ii) Human behaviour and effective communication
 - (iii) The teaching process
 - (iv) Teaching methods
 - (v) Critique and evaluation
 - (vi) Flight instructor characteristics and responsibilities
 - (vii) Planning instructional activity
- (2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--
 - (i) Aircraft flight instruments and navigation equipment
 - (ii) Aeromedical factors
 - (iii) Regulations and publications related to IFR operations
 - (iv) Logbook entries related to instrument instruction
- (3) Pre-flight 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) Pre-flight 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

IS 2.3.4.2: APPENDIX C: INSTRUCTOR RATING FOR ADDITIONAL TYPE RATINGS – FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

- (a) The flight instruction, 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) Take-off checks
 - (D) Instrument take-off, transition to instruments after lift off

- (E) Engine failure during take-off between V1 and V2 (Aeroplane)
- (F) Aborted take-off prior to reaching V1 (A)
- (G) High mach buffeting, specific flight characteristics (if necessary) (A)
- (H) Take-off with engine failure prior to TDP or DPATO or shortly after TDP or DPATO (Helicopter)
- (I) Steep turns
- (J) Recovery from approach to stall/take-off, 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 III operations, if applicable; including the applicant's knowledge and performance of the following tasks--
 - (A) Precision approaches, automatic with auto-throttle and flight director go-around caused by aircraft or ground equipment deficiencies
 - (B) Go-around caused by weather conditions
 - (C) Go-around at DH caused by offset position from centreline
 - (D) One of the CAT II/CAT III approaches must lead to a landing
- (iv) Aircraft; including the applicant's knowledge and performance of the following tasks--
 - (A) Familiarisation with controls during outside checks
 - (B) Use of checklist, setting of radios and navigation aids, starting engines
 - (C) Taxiing
 - (D) Take-off
 - (E) Engine failure during take-off short after V2, after reaching climb out attitude (Aeroplane)
 - (F) Engine failure during take-off 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: 2.3.4.2.8 FLIGHT INSTRUCTOR LIMITATIONS AND QUALIFICATIONS

- (a) Each 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 licence 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 a—
- (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 [2.1.4.6](#); or
 - (v) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of [8.10.1.5](#).
- (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
 - (B) 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.
 - (C) Meets the eligibility requirements prescribed in [2.2.6.2](#);
 - (D) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as a flight instructor; and
 - (E) 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, authorisation, 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 IFO and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other.

IS 2.3.5.1 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 CASAS 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) CASAS inspector evaluates the pilot examiner applicant testing an actual pilot applicant for a licence or rating.
 - (i) The CASAS will arrange for the pilot examiner applicant to conduct a skill test for an actual pilot applicant for a licence or rating appropriate to the examiner designation sought, and the CASAS inspector will observe the test from within the aircraft.
 - (ii) The CASAS 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 CASAS inspector concerning the pilot examiner applicant's performance with the pilot applicant will be held in private.
 - (iv) At the conclusion of the skill test for the actual pilot licence or rating:
 - (A) If the applicant has passed the skill test, the pilot examiner applicant will fill out the appropriate documentation for the pilot applicant while the CASAS inspector observes. The CASAS inspector will sign any documentation needed.
 - (B) If the pilot applicant does not pass the skill test, the CASAS inspector will complete and sign the appropriate document needed.
 - (2) CASAS inspector playing the role of pilot applicant for a skill test.
 - (i) The CASAS 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 CASAS inspector answers a question incorrectly to test whether the pilot examiner applicant recognizes an incorrect answer, the incorrect response must be obviously wrong.
 - (3) CASAS inspector gives a flight skill test to the pilot examiner applicant.
 - (i) The CASAS 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 CASAS inspector will evaluate the pilot examiner applicant's plan of action for completeness and efficiency.

IS 2.3.3.11 EXAMINERS

- (a) The ground training for examiners shall at least include:
- (1) Examiner duties, functions and responsibilities
 - (2) Applicable regulations and procedures;
 - (3) Appropriate methods, procedures and techniques for conducting the required tests and checks;
 - (4) Proper evaluation of student performance including the detection of:

- (i) Improper and insufficient training, and
 - (ii) Personal characteristics of an applicant that could adversely affect safety;
 - (5) Appropriate corrective action in the case of unsatisfactory tests and checks; and
 - (6) Approved methods, procedures and limitations for performing the required normal, abnormal and emergency procedures in the aircraft.
- (b) The flight training shall include:
- (1) Training and practice in conducting flight evaluation (from the left and right pilot seats for pilot examiners) in the required normal, abnormal and emergency procedures to ensure competence to conduct the flight tests and checks;
 - (2) The potential results of improper, untimely or non-execution of safety measures during an evaluation; and
 - (3) The safety measures (to be taken from either pilot seat for pilot check examiners) for emergency situations that are likely to develop during an evaluation.
- (c) The flight training for examiners (simulator) shall include:
- (1) Training and practice in conducting flight checks in the required normal, abnormal and emergency procedures to ensure competence to conduct the evaluations tests and checks required by this Part (this training and practice shall be accomplished in a flight simulator, a flight procedures trainer or flight training device.
 - (2) Training in the operation of flight simulators, flight procedures trainers, or flight training devices, or in all three, to ensure competence to conduct the evaluations required by this Part.

IS 2.4.4 FLIGHT ENGINEER - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

- (a) The flight instruction, skill test and proficiency check for the flight engineer licence 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) Pre-flight 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) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--
 - (i) Pre-flight inspection and cockpit setup
 - (ii) Pre-flight 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) Take-off
 - (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) Take-off
 - (ii) In-flight

- (iii) During approach and landing
- (iv) Engine systems monitoring
- (6) Postflight procedures
 - (i) After landing
 - (ii) Parking and securing

IS 2.4.6.1 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 CASAS 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) CASAS inspector evaluates the flight engineer examiner applicant testing an actual flight engineer applicant for a licence and class rating or proficiency check.
 - (i) The CASAS will arrange for the flight engineer examiner applicant to conduct a skill test for an actual flight engineer applicant for a licence or added rating or proficiency check appropriate to the examiner designation sought, and the CASAS inspector will observe the test from within the aircraft or flight simulation training device as applicable.
 - (ii) The CASAS 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 CASAS inspector concerning the flight engineer examiner applicant's performance with the flight engineer applicant will be held in private.
 - (iv) At the conclusion of the skill test for the actual flight engineer licence or added class rating 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 flight engineer applicant while the CASAS inspector observes. The CASAS inspector will sign any documentation needed.
 - (B) If the flight engineer applicant does not pass the skill test or proficiency check, the CASAS inspector will complete and sign the appropriate document needed.
 - (2) CASAS inspector playing the role of flight engineer applicant for a skill test.
 - (i) The CASAS 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.
 - (ii) If the CASAS 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) CASAS inspector gives a flight skill test to the flight engineer examiner applicant.
 - (i) The CASAS 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 CASAS inspector will evaluate the flight engineer examiner applicant's plan of action for completeness and efficiency.

IS 2.5.4 FLIGHT NAVIGATOR - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

- (a) The flight instruction, skill test and proficiency check for the flight navigator licence shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:

IS 2.5.6. 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 CASAS 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) CASAS inspector evaluates the flight navigator examiner applicant testing an actual flight navigator applicant for a licence or proficiency check.
 - (i) The CASAS will arrange for the flight navigator examiner applicant to conduct a skill test for an actual flight navigator applicant for a licence or proficiency check, and the CASAS inspector will observe the test from within the aircraft or flight simulation training device as applicable.
 - (ii) The CASAS inspector will evaluate the flight navigator examiner applicant's performance while the flight navigator examiner applicant evaluates the flight navigator licence or proficiency check applicant.
 - (iii) Any discussion between the flight navigation examiner applicant and the CASAS 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 licence 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 CASAS inspector observes. The CASAS inspector will sign any documentation needed.
 - (B) If the pilot applicant does not pass the skill test or proficiency check, the CASAS inspector will complete and sign the appropriate document needed.
 - (2) CASAS inspector playing the role of flight navigator applicant for a skill test.
 - (i) The CASAS 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 CASAS 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) CASAS inspector gives a flight skill test to the flight navigator examiner applicant.
 - (i) The CASAS 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 CASAS inspector will evaluate the flight navigator examiner applicant's plan of action for completeness and efficiency.

IS 2.6.2.7. AIRCRAFT MAINTENANCE TECHNICIAN LICENCE SKILL TEST

- (a) Each applicant for a Aviation Maintenance Technician license or rating shall pass an oral and practical test appropriate to the rating(s) sought. The tests cover the applicants 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) 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) lines and fittings
 - (3) materials and processes
 - (4) ground operations and servicing
 - (5) cleaning and corrosion control
 - (6) mathematics
 - (7) maintenance forms and records
 - (8) maintenance publications
 - (9) physics
 - (10) mechanic privileges and limitations

IS 2.6.2.7.(A). SKILL REQUIREMENTS FOR THE AMT AIRFRAME RATING.

- (a) The skill test for the airframe rating shall test the applicant's knowledge and performance in at least the following areas of operation:
- (1) assembly and rigging
 - (2) airframe inspection
 - (3) aircraft landing gear systems
 - (4) hydraulic and pneumatic systems
 - (5) cabin atmosphere control systems
 - (6) aircraft instrument systems
 - (7) communication and navigation systems
 - (8) fuel systems
 - (9) aircraft electrical systems
 - (10) position and warning systems
 - (11) ice and rain control systems
 - (12) fire protection systems
 - (13) Job/task documentation and control practices.

IS 2.6.2.7.(B). SKILL REQUIREMENTS FOR THE AMT POWERPLANT RATING.

- (a) The skill test for the powerplant rating shall test the applicant's knowledge and performance in at least the following areas of operation:
- (1) powerplant electrical systems
 - (2) lubrication systems
 - (3) ignition and starting systems
 - (4) fuel metering
 - (5) engine fuel systems
 - (6) induction and engine airflow systems
 - (7) engine cooling systems
 - (8) engine exhaust and reverser systems
 - (9) propellers
 - (10) auxiliary power units
 - (11) Job/task documentation and control practices.

IS 2.6.2.7(c). SKILL REQUIREMENTS FOR THE AMT AVIONICS RATING.

- (a) 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 – autoflight
 - (4) Avionics – radio
 - (5) Repair, maintenance and function testing of aircraft systems/components – avionics
 - (6) Job/task documentation and control practices.

IS 2.8.3 SKILL TEST FOR THE FLIGHT OPERATIONS OFFICE LICENCE

- (a) The skill test for the flight operations officer licence shall test the applicant's knowledge and performance in at least the following areas of operation:
- (1) Flight planning/dispatch release, including the applicants' knowledge and performance of the following tasks—
 - (i) Regulatory requirements;
 - (ii) Meteorology
 - (iii) Weather observations, analysis, and forecasts
 - (iv) Weather related hazards;
 - (v) Aircraft systems, performance, and limitations;
 - (vi) Navigation and aircraft navigation systems;
 - (vii) Practical dispatch applications;
 - (viii) Manuals, handbooks and other written guidance.
 - (2) Pre-flight, 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 APPENDIX A – BASIC TRAINING IN AVIATION MEDICINE FOR AMES

- (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) Otorinolaryngology
- (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

IS 2.10.1.3 APPENDIX B – ADVANCED TRAINING IN AVIATION MEDICINE FOR AMEs

(a) Advanced training in aviation medicine for AMEs shall include the following:

- (1) Pilot working environment
- (2) Aerospace physiology
- (3) Ophthalmology
- (4) Otorinolaryngology
- (5) Cardiology and general medicine
- (6) Neurology/Psychiatry
- (7) Human factors in aviation
- (8) Tropical medicine
- (9) Hygiene
- (10) Space medicine

IS 2.10.1.8 MEDICAL CERTIFICATE

(a) The following details shall appear on the medical certificate:

- (i) Name of State
- (ii) Licence No.
- (iii) Name of holder in full (in Roman alphabet also if script of national language is other than Roman);
- (iv) Date of birth
- (v) Address of holder
- (vi) Nationality of holder
- (vii) Signature of holder
- (viii) Medical certificate Class 1, 2, or 3
- (ix) Issuing CASAS
- (x) Validity
- (xi) Limitations
- (xii) Date of issue and signature of issuing officer

Initial medical examination		
Date:		
State:		
Date (YDM) of:	Last	Next
Extended Medical Examination		
Medical (general) examination		
Electrocardiogram		
Audiogram		