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NIGERIA CIVIL AVIATION REGUATIONS

PART 2—PERSONNEL LICENSING

Introduction

Part 2 addresses the licensing of personnel. Article 32 of the Chicago Convention requires Nigeria to issue certificates of competency and licences or validate such certificates or licenses issued by other Contracting States to the pilot of every Nigerian-registered aircraft and to other members of the operating crew of every Nigerian-registered aircraft engaged in international navigation. The licensing of personnel in accordance with international standards promotes safe and regular aircraft operations.

Part 2 of the Regulations presents detailed personnel licensing requirements that meet the standards contained in ICAO *Annex* 1 and other national licences. the licensing and rating requirements cover the following personnel: pilots, flight instructors, flight engineers, flight dispatchers, aircraft maintenance engineers, air traffic controllers, air traffic safety electronics personnel, cabin crewmembers, parachute riggers, aviation repair specialists, aeronautical station operators and designees.

Part 2 also addresses medical assessments of flight crew and air traffic controllers and licences not addressed in ICAO *Annex* 1, such as air traffic safety electronics personnel, cabin crewmembers, parachute riggers, aviation repair specialists, and designees.

NIGERIA CIVIL AVIATION REGULATIONS

PART 2—PERSONNEL LICENSING



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NIGERIA CIVIL AVIATION REGULATIONS

PART 2—PERSONNEL LICENSING

2.1. General

2.1.1.1.—(a) This Part 2 Prescribes :

Applicability.

- (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.
 - **2.1.1.2**—(*a*) For the purpose of this Part 2, in addition to the Definitions set forth in Section 78 of the Civil Aviation Act 2006 and in Part 1 of the Regulations, and the following definitions shall apply:

Definitions.

- (1) Accredited Medical Conclusion—The conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.
- (2) Aeroplane—A power driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.
- (3) *Aircraft*—Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.
- (4) *Aircraft Avionics*—A term designating any electronic device-including its electrical part-for use in an aircraft, including radio, automatic flight control and instrument.
- (5) *Aircraft-category*—Classification of aircraft according to specified basic characteristics, *e.g.* aeroplane, helicopter, glider, free balloon.
- (6) 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.

- (7) Aircraft Certificated for Multi-Pilot Operation—A type of aircraft which the state of design has determined, during the certification process, can be operated safely with a minimum crew of two pilots. During the certification process, the Authority 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 it also might require the same aircraft be operated by more than one pilot under certain conditions, such as use in air transportation.
- (8) Aircraft required to be operated with a Co-Pilot—A type of aircraft that is required to be operated with a co-pilot, as specified in the flight manual or by the air operator certificate.
- (9) Aircraft-type of—All aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.
 - (10) Airman. This term refers to—
 - (i) Any individual who engages, as the person in command or as pilot, mechanic, or member of the crew, or who navigates an aircraft while the aircraft is underway;
 - (ii) Any individual in charge of the inspection, maintenance, overhauling, or repair of aircraft, and any individual in charge of the inspection, maintenance, overhauling, or repair of aircraft, aircraft engines, propellers, or appliances; or
 - (iii) Any individual who serves in the capacity of flight dispatcher.
- (10) *Airmanship*—The consistent use of good judgment and well-developed knowledge, skills and attitudes to accomplish flight objectives.
 - (11) Airship—A power-driven lighter-than-air aircraft.
- (12) Approved Maintenance Organization—An organization approved by a Contracting State, in accordance with the requirements of Annex 6, Part I, Chapter 8-Aeroplane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by that State.
- (13) *Approved Training*—Training conducted under special curricula and supervision approved by a Contracting State.
- (14) Approved Training Organization—An organization approved by and operating under the supervision of a Contracting State in accordance with the requirements of *Annex* 1 to perform approved training.

- (15) Authorised Aviation Medical Examiner—A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the Licensing Authority to conduct medical examination of fitness of applicants for licences or ratings for which medical requirement are prescribed.
- (16) ATS Surveillance Service—A term used to indicate a service provided directly by means of an ATS surveillance system.
- (17) ATS Surveillance System—A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.
 - (18) *Balloon*—A non-power-driven lighter-than-air aircraft.
- (19) Calendar Month—A period of a month beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered month (as January 1 through January 31 in the Gregorian Calendar).
- (20) 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).
- (21) Certify as Airworthy (to)—To certify that an aircraft or parts thereof comply with current airworthiness requirements after maintenance has been performed on the aircraft or parts thereof.
- (22) Commercial Air Transport Operation—An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.
- (23) *Competency*—A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.
- (24) Competency Element—An action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.
- (25) *Competency Unit*—A discrete function consisting of a number of competency elements.
- (26) *Complex Aeroplane*—An aeroplane that has retractable landing gear, flaps, and a controllable pitch propeller: or in the case of seaplane, flaps and a controllable pitch propeller.

- (27) Conversion—Conversion is the action taken by state in issuing its own licence on the basis of a licence issued by another contracting state for use on aircraft registered in State.
- (28) *Co-Pilot*—A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.
 - (29) Credit—Recognition of alternative means or prior qualifications.
- (30) *Cross-Country*. A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.
- (31) *Dual Instruction Time*—Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft
- (32) *Error*—An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.
- (33) *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 further errors or undesired states.
- (34) *Examiner*—Any person designated by the Authority to act as a representative of the Authority in examining, inspecting, and testing persons and aircraft for the purpose of issuing licences, ratings and certificates.
- (35) *Flight Crew Member*—A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.
- (36) *Flight Plan*—Specified information provided to air traffic services unit, relative to an intended flight or portion of a flight of an aircraft.
- (37) Flight Simulator 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;
 - (38)(i) Flight Simulator—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) Flight Procedures Trainer—Provides a realistic flight deck environment, and simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;

- (iii) Basic Instrument Flight Trainer—Equipped with appropriate instruments and simulates the flight deck environment of an aircraft in flight in instrument flight conditions.
- (39) *Flight Time-Aeroplanes*—The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.
- (40) *Flight Time–Helicopters*—The total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.
- (41) *Glider*—A non-power-driven heavier—than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.
- (42) *Glider Flight Time*—The total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight.
- (43) *Helicopter*—A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.
- (44) *Human Performance*—Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.
- (45) *Instrument Flight Time*—Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.
- (46) *Instrument Ground Time*—Time during which a pilot is practising, on the ground, simulated instrument flight in a flight simulation training device approved by the Licensing Authority.
 - (47) Instrument Time—Instrument flight time or instrument ground time.
- (48) *Licensing Authority*—The Authority designated by a Contracting State as responsible for the licensing of personnel.
- (49) *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.
- (50) Maintenance—The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

- (51) *Medical Assessment*—The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness.
- (52) *Medical Assessor*—A physician, appointed by the Licensing Authority, qualified and experienced in the practice of Aviation Medicine and competent in evaluating and assessing medical conditions of flight safety significance.
- (53) *Medical Certificate*—The evidence issued by the Authority 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.
- (54) *Medical Examiner*—A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the Licensing Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed.
- (55) *Night*—The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.
- (56) *Performance Criteria*—Simple, evaluative statements on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved.
- (57) *Pilot* (*to*)—To manipulate the flight controls of an aircraft during flight time.
- (58) *Pilot-In-Command*—The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.
- (59) *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, in accordance with a method of supervision acceptable to the Licensing Authority.
- (60) Powered-Lift—A heavier-than-air aircraft capable of vertical takeoff, vertical landing, and low-speed flight, which depends principally on engine-driven lift devices or engine thrust for the lift during these flight regimes and on non-rotating aerofoil(s) for lift during horizontal flight.

- (61) *Problematic Use of Substances*—The use of one or more psychoactive substances by aviation personnel in a way that: (a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or (b) causes or worsens an occupational, social, mental or physical problem or disorder.
- (62) *Psychoactive Substances*—Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psycho stimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.
- (63) *Quality System*—Documented organizational procedures and policies; internal audit of those policies and procedures; management review and recommendation for quality improvement.
- (64) *Rated Air Traffic Controller*—An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.
- (65) *Rating*—An authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence.
- (66) Re-issue of a Licence, Rating Authorization or Certificate— The administrative action taken after a licence, rating, authorization or certificate has lapsed that re-issues the privileges of the licence, rating, authorization or certificate for a further specified period consequent upon the fulfillment of specified requirements.
- (67) Rendering (a Licence) Valid—The action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence.
- (68) Renewal of Licence, Rating, Authorization or Certificate—The administrative action taken within the period of validity of a licence, rating, authorization or certificate that allows the holder to continue to exercise the privileges of a licence, rating, authorization or certificate for a further specified period consequent upon the fulfilment of specified requirements.
- (69) *Route Sector*—A flight comprising take-off, departure, cruise of not less than 15 minutes, arrival, approach and landing phases.
- (70) Safety Management System—A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures.

- (71) Sign a Maintenance Release (to)—To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in *Annex* 6.
- (72) *Significant*—In the context of the medical provisions in Chapter 6, significant means to a degree or of a nature that is likely to jeopardize flight safety.
- (73) *Solo Flight Time*—Flight time during which a student pilot is the sole occupant of an aircraft.
- (74) *State Safety Programme (SSP)*—An integrated set of regulations and activities aimed at improving safety.
 - (75) Synthetic flight Trainer—See flight simulation training device.
- (76) *Threat*—Events or errors that occur beyond the influence of an operational person, increase operational complexity and must be managed to maintain the margin of safety.
- (77) *Threat Management*—The process of detecting and responding to threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.
- (78) *Undesired Aircraft State*—Occurs when the flight crew places the aircraft in a situation of unnecessary risk.
- (79) *Validation*—The action taken by Nigeria 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 Nigeria.

Abbreviations.

- **2.1.1.3.**—(a) The Following Abbreviations are Used In Part 2:
- 1. A Aeroplane.
- 2. AAME Authorised Aviation Medical Examiner.
- 3. AIP Aeronautical Information Publication.
- 4. AME Aircraft Maintenance Engineer.
- 5. AR Aircraft Repair Specialist.
- 6. AS Airship.
- 7. ATCO Air Traffic Controller (Note: abbreviation ICAO A446).
- 8. ATPL Airline Transport Pilot Licence.
- 9. B Balloon.
- 10. CAT II Category II.
- 11. CAT III Category III.
- 12. CPL Commercial Pilot Licence.
- 13. CRM Crew Resource Management.
- 14. DAME Designated Aircraft Maintenance Examiner.

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15. DFDE
                   Designated Flight Dispatcher Examiner.
16. DFEE

    Designated Flight Engineer Examiner.

17. DMEE

    Designated Maintenance Engineer Examiner.

18. DPE

    Designated Pilot Examiner.

19. DPRE

    Designated Parachute Rigger Examiner.

20. FD

    Flight Dispatcher.

21. FE

    Flight Engineer.

22. FI

    Flight Instructor.

23. G
               — Glider.
24. H
               — Helicopter.
25. IA

    Inspection Authorisation.

26. ICAO

    International Civil Aviation Organisation.

27. IFR

    Instrument Flight Rules.

28. ILS

    Instrument Landing System.

29. MPA

    Multi-pilot Aeroplane.

30. MPH
                   Multi-pilot Helicopter.
               — Multi-crew Pilot Licence
31. MCPL
32. NOTAM — Notice to Airmen.
33. PIC

    Pilot-in-Command.

34. PL
               — Powered-Lift.
35. PPL
               — Private Pilot Licence.
36. RT

    Radiotelephony.

37. SMS

    Safety Management Systems.

38. SSP
               — State Safety Programme.
39. SPA
                   Single-pilot Aeroplane.
40. SPH
                   Single-pilot Helicopter.
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2.2. General requirements for Licences, Ratings, Authorisations, Certificates, Endorsements and Designations.

Visual Flight Rules.

- 2.2.1. Issue, renewal, and re-issue of licences, ratings, authorisations, designations, and certificates.
 - **2.2.1.1.**—(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:

41. VFR

(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) Multi-Crew Pilot licence (MPL)-aeroplane category;
- (iv) Airline Transport Pilot Licence (ATPL)-aeroplane, helicopter or powered-lift categories;
 - (2) Flight engineer licence.
 - (3) Flight dispatcher licence.
 - (4) Flight instructor licence.
 - (5) Ground instructor licence.
 - (6) Aircraft maintenance engineer licence.
 - (7) Aviation repair specialist licence.
 - (8) Parachute rigger licence.
 - (9) Air traffic controller licence.
 - (10) Aeronautical station operator licence.
 - (11) Air traffic safety electronics personnel licence.
 - (12) Cabin crew licence.
 - (13) Flight radio telephony operator's restricted licence.

Ratings.

- **2.2.1.2.**—(*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 shall be issued for those helicopters and powered-lifts 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.
- (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 Authority.
- (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.

- (5) Flight Instructor ratings:
- (i) The appropriate aircraft category, class, instrument and/or type rating according to the instruction to be taught.
- (6) 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:
 - (i) Basic.
 - (ii) Advanced.
 - (iii) Instrument.
 - (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) Turbo propeller powered.
 - (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 rating.
 - (3) Approach radar control rating.
 - (4) Approach precision radar control rating.
 - (5) Area control rating.
 - (6) Area radar control rating.
- (d) The Authority may issue the following ratings to place on an aircraft maintenance engineer 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 ratings as appropriate to place on an aviation repair specialist licence.
- (f) 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.
- (g) The Authority may issue ratings as appropriate to place on a flight dispatcher licence.
- (h) The Authority may issue ratings as appropriate to place on an Air Traffic Safety Electronics Personnel licence.
- (i) The Authority may issue ratings as appropriate to place on a Cabin Crew licence.

Authorisations.

2.2.1.3.—(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 training in a flight simulation training device.
- (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.
- (c) The Authority may issue the following authorisation to place on an AME licence when an applicant satisfactorily accomplishes the requirements in the Part for the authorisation sought:
 - (1) Inspection Authorisation.
- **2.2.1.4.**—(*a*) A Pilot may receive the following endorsements from an authorised instructor when he/she satisfactorily accomplishes the required training in this Part :

Endorsements.

- (1) Complex aeroplane endorsement.
- (2) High performance aeroplane endorsement.
- (3) High altitude aircraft endorsement.
- (b) An airman may receive an English language proficiency endorsement from the Authority when he/she satisfactorily meets the requirements of this Part.
- **2.2.1.5.**—(*a*) The Authority may issue the following medical certificates when an applicant satisfactorily accomplishes the requirements in this part for the medical certificate sought:

Certificates.

- (1) Medical Certificate Class 1 for CPL, ATPL, and flight instructor ratings and for DPEs;
- (2) Medical Certificate Class 2 for student pilot authorisation, PPL and cabin crew licences;
 - (3) Medical Certificate Class 3 for Air traffic controller licence.
 - (b) The Authority may issue the following certificates to pilots, AMEs and flight engineers holding a licence from another ICAO Contracting State.
 - (1) Validation certificates.
- (c) The Authority may issue certificates of designation to representatives of the Director-General of the Authority as identified in 2.2.1.6 below.

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Designation of Representatives of the Director General of Civil Aviation.

2.2.1.6.—(a) The Authority may issue the following designations to private persons to act on behalf of the Director General of the Authority, as specified in this Part:

- (1) DPE;
- (2) DFEE;
- (3) DFDE;
- (4) DAME;
- (5) DPRE;
- (6) AAME; or
- (7) Other designees as may be determined by the Authority.

Validity of Licences, Ratings, Authorisations and Certificates.

- **2.2.1.7.**—(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.
- (1) The holder of a licence, certificate, authorisation or designation shall not exercise privileges other than those granted by the licence, certificate, authorisation or designation.
- (2)(i) 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.
 - (ii) The Authority shall establish maintenance of competency and recent experience requirements for pilot licences and ratings based on a systematic approach to accident prevention and shall include a risk assessment process and analysis of current operations, including accident and incident data of Nigeria.
 - (c) Maintenance of competency shall be indicated in the airman's personal licence or record (e.g. logbook).
 - (d) The maintenance of competency of flight crewmembers, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Part 8.
 - (e) The validity period of a licence is 5 years.
 - (f) Upon application of the licence holder, the Authority may renew a licence within the 5 years validity period after initial issue of a rating provided the ratings related to the licence and the medical certificate are valid.

- (g) 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.
- (h) Medical fitness. Applicants for the following licences and authorisations shall hold a medical certificate issued under this part in order for their licence or authorisation to be valid:
 - (1) Student pilot authorisation.
 - (2) Pilot licence.
 - (3) Flight engineer licence.
 - (4) Flight instructor rating.
 - (5) Designated pilot examiner (DPE).
 - (6) Designated flight engineer examiner.
 - (7) Air traffic controller licence.
- (*i*) The Authority having issued a licence shall ensure that other Contracting States are enabled to be satisfied as to the validity of the licence.
- *Note* 1—Flight crew members may, to the extent deemed feasible by the Authority, demonstrate their continuing competency in flight simulation training devices approved by the Authority.
- **2.2.2.**—(a)(i) 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.

Language Proficiency.

- (ii) Flight engineers, and glider and free balloon pilots shall have the ability to speak and understand the English language used for radiotelephony communications.
- (iii) Pilots, flight navigators required to use the radiotelephone aboard an aircraft, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the English language used for radiotelephony communications to the level specified in the language proficiency requirements in IS 2.2.2.
- (b) The airmen identified in item (a) above shall demonstrate the ability to speak and understand the language used for radiotelephony communications in the English language to at least the Operational Level (Level 4) with the aim to speak at the Expert Level (Level 6) as specified in the language proficiency requirements in IS 2.2.2. The Authority will endorse as appropriate the licence of an airmen identified in item (a) who has demonstrated

the ability to speak and understand the language used for radiotelephony communications in the English language to at least the Operational Level (Level 4).

- (c) The language proficiency of airmen identified in item (a) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level as follows:
- (1) Those demonstrating language proficiency at the Operational Level (Level 4) shall be evaluated at intervals not greater than 3 years;
- (2) Those demonstrating language proficiency at the Extended Level (Level 5) shall be evaluated at intervals not greater than 6 years; and
- (3) Those demonstrating language proficiency at the Expert Level (Level 6) shall be exempt from further language evaluation.
- (d) Implementing Standard IS 2.2.2 contains the detailed requirements for language proficiency.

2.2.3. Credit for Military Competency

Credit for Military Pilots.

- **2.2.3.1.**—(*a*) 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 2.2.3.1 may apply, on the basis of his or her military training, for :
 - (1) A CPL;
 - (2) A rating in the category and class of aircraft for which that military pilot is qualified;
 - (3) An instrument rating with the appropriate category rating for which that military pilot is qualified; and
 - (4) A type rating, if appropriate.
- (b) The testing required by a military pilot seeking a licence or rating is as follows:
- (1) If the applicant has been on active flight status within the past 12 months of application; pass a knowledge test on:
 - (i) Air law;
 - (ii) Aeronautical weather codes;
 - (iii) Flight performance and planning; and
 - (iv) Human performance.

- (2) If the applicant has not been on active flight status within the past 12 months of application, pass both a knowledge and skill test.
- **2.2.3.2.**—(a) The Authority shall grant to an applicant for a senior parachute rigger licence that licence if he or she passes a knowledge test on the regulations of Subpart 2.10 and presents satisfactory documentary evidence that he or she—

Credit for Military Parachute Rigars.

- (1) Is a member or Civilian Employee of an Armed Force of Nigeria, 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 paragraph 2.10.1.4 of these regulations.
- **2.2.4.** Validation and Conversion of Foreign Licences, Ratings, Authorisations and Certificates
 - **2.2.4.1.**—(a) General requirements for validation.

Validation of Flight Crew Licences.

- (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 Nigeria.
- (2) The applicant for the validation certificate shall present to the Authority 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 Authority evidence that he/she holds either a current medical certificate issued under Part 2 or a current medical certificate issued by the Contracting State that issued the applicant's 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 Authority evidence of language proficiency in English as specified in 2.2.2 or shall demonstrate to the Authority the language proficiency skills as specified in 2.2.2.

- (i) The validation shall be limited for use on Nigeria registered aircraft for use within Nigeria if the pilot is not proficient in the English language, as required by 2.2.2.
- (5) The Authority 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 Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.
- (7) The Authority may issue a validation certificate which will be valid for 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, MPL, ATPL or FE privileges. In addition to the requirements in item (a) above, the applicant for a validation certificate for either a PPL/IR, CPL, CPL/IR, MPL, ATPL or FE privileges, shall have the relevant foreign licence and meet the following requirements:
- (1) The applicant for the validation certificate shall demonstrate to the satisfaction of the Authority the knowledge relevant to the licence to be validated of:
 - (i) Air Law; (see IS: 2.2.4.1 (c)(1)).
- (2) the applicant for the validation certificate may be required to 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; and
- (3) Comply with the experience requirements set out in the table contained in IS: 2.2.4.1(c)(3).

Conversion of Flightcrew Licences. **2.2.4.2.**—(a) Conversion of a foreign pilot licence for issuance of a PPL by Nigeria. 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 Nigeria provided the following requirements are met.

- (1) The holder shall:
- (i) Present to the Authority the foreign licence, evidence of experience required by presenting the record (e.g. logbook) and current medical certificate;
- (*ii*) Present to the Authority evidence of proficiency in English language as specified in 2.2.2 or shall demonstrate to the Authority the language proficiency skills as specified in 2.2.2;
 - (iii) Obtain a Class 2 medical certificate issued under this Part;
- (iv) Demonstrate to the satisfaction of the Authority the knowledge of Air Law; and
 - (v) Complete a PPL skill test.
- (2) The Authority 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, MPL, 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, MPL, 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 Nigeria provided the following requirements are met:
- (1) The applicant is the holder of a current validation certificate issued under 2.2.4.1;
- (2) The applicant has completed 200 flight hours in a Nigerian registered aircraft which are operated by an operator established in Nigeria exercising the privileges granted by the validation certificate;
- (3) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 200 flight hours by presenting the record (*e.g.* logbook); and
- (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.

Validation of Flightcrew Licences by Reliance upon the Licensing System of Another Contracting State.

- **2.2.4.3.**—(a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2 the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign licence and current medical certificate, provided:
 - (1) The licence is issued by another ICAO Contracting State;
- (2) The Authority is convinced that the licence has been issued on the basis of at least Part 2;
- (3) There is an agreement between the Authority and the other Contracting State about recognition of licences and, if applicable, keeping the licences and ratings current and valid; and
- (4) The applicant for the validation certificate shall demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (i) Air law;
 - (b) The applicant for the validation certificate shall present to the Authority the :
- (1) Foreign licence and evidence of the currency of the licence by presenting the record (e.g. logbook).
- (2) Medical certificate relevant to the licence to be validated, provided that the foreign medical certificate meets the requirements of Part 2.
- (3) Evidence of language proficiency in English as specified in paragraph 2.2.2 or shall demonstrate to the Authority the language skills as specified in paragraph 2.2.2.
 - (c) The Authority will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the State of Licence issue prior to issuing the validation.
 - (*d*) The Authority may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings, authorisations and medical certificate remains valid.
 - (e) The IS 2.2.4.3 contains procedures for validation of flightcrew licences by reliance upon the licensing system of another ICAO Contracting State.

Conversion

- **2.2.4.4.**—(*a*) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2 the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:
 - (1) The licence is issued by another ICAO Contracting State;
 - (2) The Authority is convinced that the licence has been issued on the basis of at least Part 2; and
 - (3) There is an agreement between the Authority and the other Contracting State about recognition of licences.
 - (b) The applicant for the conversion shall present to the Authority the :
 - (1) Foreign licence and evidence of the currency of the licence by presenting the record (*e.g.* logbook);
 - (2) Medical certificate relevant to the licence if the medical certificate is to be converted or medical certificated issued under Part 2 relevant to the licence sought; and
 - (3) Evidence of language proficiency in English as specified in paragraph 2.2.2 or shall demonstrate to the Authority the language skills as specified in paragraph 2.2.2.
- (c) The applicant shall demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (1) Air law;
- (d) The Authority will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the State of Licence issue prior to issuing the validation.
- (*e*) The IS 2.2.4.4 contains procedures conversion of flightcrew licences by reliance upon the licensing system of another ICAO Contracting State.
- **2.2.4.5.**—(a) The requirements stated in 2.2.4.1 shall not apply where Nigerian-registered aircraft 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 personnel licencing responsibility pursuant to an agreement with Nigeria under Article 83 bis of the Chicago Convention.

Flightcrew Licences by Reliance upon the Licensing System of Another Contracting State.

Validation in Case of Leased, Chartered or Interchanged Aircraft.

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Temporary Validation of Non-NigeriaN Pilot Licences Held by Manufacturer Pilots.

- **2.2.4.6.**—(a) In circumstances where validation of a non-Nigerian 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:
- (c) 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;
- (*d*) Demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (1) Air law;
 - (2) Aeronautical weather codes;
 - (3) Flight performance and planning; and
 - (4) Human performance.
- (e) Provide evidence of language proficiency in the English language as specified in paragraph 2.2.2 or shall demonstrate to the Authority the language skills as specified in paragraph 2.2.2.
- (f)Be employed by an aircraft manufacturer or Approved Training Organisation located outside Nigeria performing training on behalf of an aircraft manufacturer; and
- (g) 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 Nigeria, delivery or ferry flights, initial line flying, flight demonstrations or test flights.
- (h) Whenever conducting or supervising line flying, the pilot shall also be required to meet the relevant requirements of Part 8.
- (i) The Authority will verify the authenticity of the licence, ratings, authorisations and medical certificate with the State of licence issue prior to issuing the temporary validation.
 - (*j*)The duration of the temporary validation shall be for one year.

- **2.2.4.7.**—(a) General requirements for validation.
- (1) A person who holds a current and valid AME 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 Nigeria.
- (2) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record.
- (3) The applicant for the validation certificate shall demonstrate to the Authority evidence of proficiency in English language.
- (4) The Authority will verify the authenticity of the licence, ratings authorisations with the state of licence issue prior to issuing the validation.
- (5) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.
- (6) The Authority may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings or authorisations remains valid.
- (b) The applicant for the validation certificate shall demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (1) Air Law;
 - (2) Applicable Airworthiness requirements governing certification and continuing airworthiness; and
 - (3) Approved maintenance organisations and procedures.
- (c) The applicant for the validation certificate may be required to 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; and
 - (d) Have a minimum of four years AME experience.
- **2.2.4.8.**—(a) General requirements for conversion. A person who holds a current and valid AME licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for conversion of such licence for use on aircraft registered in Nigeria provided the following requirements are met:

Conversion of Aircraft Maintenance engineer Licences.

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

Validation of Aircraft Maintenance engineer Licences.

- (2) The applicant for the conversion shall demonstrate to the Authority evidence of proficiency in English language.
- (3) Demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (i) Air Law;
 - (ii) Applicable Airworthiness requirements governing certification and continuing airworthiness;
 - (iii) Approved maintenance organisations and procedures; and
 - (iv) Human Performance;
- (4) The applicant for the validation certificate may be required to 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; and
 - (5) Have a minimum of four years AME experience.
 - (i) The Authority will verify the authenticity of the licence, ratings authorisations with the state of licence issue prior to issuing the converted licence.
 - (ii) The Authority will only convert ratings or authorisations on the foreign licence together with the conversion of a licence.
 - (iii) The validation will be for one year provided that the underlying foreign AME licence remains current and valid.
- (b) Conversion of AME licences that have been validated in accordance with 2.2.4.7. The holder of a current and valid AME licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with 2.2.4.7 and can show evidence of 12 months performing maintenance on aircraft registered in Nigeria may convert his/her AME licence with no further formality.

Validation of AME Licences by Reliance upon the Licensing System of Another Contracting

- **2.2.4.9.**—(*a*) Notwithstanding paragraphs 2.2.4.7 and 2.2.4.8 the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AME, provided:
 - (1) The licence is issued by another ICAO Contracting State;
 - (2) The Authority had determined that the licence has been issued on the basis of at least Part 2;
 - (3) There is an agreement between the Authority and the other Contracting State about recognition of licences and, if applicable, keeping the licences and ratings current and valid; and

- (4) The applicant for the validation certificate shall demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (i) Air law;
 - (ii) Applicable Airworthiness requirements governing certification and continuing airworthiness; and
 - (iii) Approved maintenance organisations and procedures.
- (5) The applicant for the validation certificate shall present to the Authority the :
 - (*i*) Foreign licence and evidence of the currency of the licence by presenting the personal record.
- (6) The applicant for the conversion shall demonstrate to the Authority evidence of proficiency in English language.
- (b) The Authority will verify the authenticity of the licence, ratings, with the State of Licence issue prior to issuing the validation.
- (c) The Authority may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings, and authorisations remain valid
- (d) The IS 2.2.4.9 contains procedures for validation of AME licences by reliance upon the licensing system of another ICAO Contracting State.
- **2.2.4.10.**—(*a*) Notwithstanding paragraphs 2.2.4.7 and 2.2.4.8 of these regulations the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:
 - (1) The licence is issued by another ICAO Contracting State;
 - (2) The Authority is convinced that the licence has been issued on the basis of at least Part 2 of these regulations; and
 - (3) There is an agreement between the Authority and the other Contracting State about recognition of licences.
 - (b) The applicant for the conversion shall present to the Authority the :
 - (1) Foreign licence; and
 - (2) Evidence of the currency of the licence by presenting the personal record (e.g. logbook).
- (c) The applicant for the conversion shall demonstrate to the Authority evidence of proficiency in English language.

Conversion of AME Licences by Reliance upon the Licensing System of Another Contracting State.

- (d) The applicant shall demonstrate to the satisfaction of the Authority the knowledge of the following elements relevant to the licence to be validated:
 - (1) Air law;
 - (2) Natural Science and aircraft general knowledge;
 - (3) Aircraft Engineering;
 - (4) Aircraft Maintenance; and
 - (5) Human Factors.
 - (e) The Authority will verify the authenticity of the licence, ratings and authorisations with the State of Licence issue prior to issuing the validation.
 - (f) The IS 2.2.4.10 contains procedures conversion of AME licences by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.11.—(a) General requirements for validation.

- (1) A person who holds a current and valid Flight Dispatcher 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 Nigeria.
- (2) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record.
- (3) The applicant for the validation certificate shall demonstrate to the Authority evidence of proficiency in English language.
- (4) The Authority will verify the authenticity of the licence, ratings authorisations with the state of licence issue prior to issuing the validation.
- (5) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence
- (6) The Authority may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings or authorisations remains valid.
 - (b) The applicant for the validation certificate shall demonstrate to the satisfaction of the Authority by passing the knowledge test covering the following elements relevant to the licence to be validated:
 - (1) Air law;
 - (2) Aeronautical weather codes;
 - (3) Flight performance and planning;

Validation of Flight Dispatcher Licences.

- (4) Human performance; and
- (5) Any other knowledge area considered necessary by the Authority.
- (c) The applicant for the validation certificate may be required to 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.
- **2.2.4.12.**—(a) General requirements for conversion. A person who holds a current and valid Flight Dispatcher licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for conversion of such licence for use on aircraft registered in Nigeria provided the following requirements are met:

Conversion of Flight Dispatcher Licences.

- (1) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the experience required by presenting the personal record.
- (2) The applicant for the conversion shall demonstrate to the Authority evidence of proficiency in English language.
- (3) Demonstrate to the satisfaction of the Authority by passing the knowledge covering the following elements relevant to the licence.
 - (i) Air Law;
 - (ii) Aeronautical weather codes;
 - (iii) Flight performance and planning;
 - (iv) Human Performance; and
 - (v) Any other knowledge area considered necessary by the Authority.
- (4) The applicant may be required to complete a skill test for the relevant licence and ratings that he or she wants to be converted relevant to the privileges of the licence held;
- (5) The Authority will verify the authenticity of the licence, ratings authorisations with the state of licence issue prior to issuing the converted licence.
- (6) The Authority will only convert ratings or authorisations on the foreign licence together with the conversion of a licence.
- (7) Conversion of Flight Dispatcher licences that have been validated in accordance with 2.2.4.11. The holder of a current and valid Flight Dispatcher licence issued by another Contracting State in accordance with ICAO *Annex* 1 who has a validation in accordance with 2.2.4.11 and can show evidence of 12 months exercising the privileges of the validation certificate on aircraft registered in Nigeria may convert his/her Flight Dispacher licence with no further formality.

2.2.5. Training and Testing Requirements.

Documentation of Training and Aeronautical Experience.

- **2.2.5.1.**—(*a*) Each person shall document and record the following in a manner acceptable to the Authority :
- (1) Training and/or experience used to meet the requirements for a licence, rating, endorsement and/or authorisation of Part 2 of these Regulations; and
- (2) The experience required to show the maintaining of recency of aeronautical experience according to the requirements of Part 2 of these Regulations.

Training Conducted in an Approved Training Organisation.

- **2.2.5.2**—(a) The Authority may provide for some reduction in the experience requirements or an alternate means of compliance with 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 ensure 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.

Use of Flight Simulation Training Devices (Synthetic Flight Trainers).

- **2.2.5.3.**—(a) Except as specified in paragraph (b) of this subsection, no airman may receive credit for use of any flight simulation training device for satisfying any training, testing, or checking requirement of this part unless that flight simulator or flight training device is approved by the Authority for—
 - (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 flight simulation training device shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, and heading reference) as those of the aircraft used by the operator.

- (1) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.
- (2) Operators that have standard instruments shall use simulators that have standard instruments.
- (3) Operators shall not conduct differences training on variant training on aircraft that have electronic glass displays with aircraft that have standard instruments.
- (c) The Authority may approve a device other than a flight simulation training device for specific purposes.
- (d) The use of a synthetic flight trainer for performing training, testing and checking for which a flight crewmember is to receive credit, shall be approved by the Authority, which shall ensure that the synthetic flight trainer is appropriate to the task.
- (e) The Authority shall not permit a person to carry out instruction on a flight simulation training device required for the issue of a pilot licence or rating unless such person holds or has held an appropriate licence or has appropriate flight training and flight experience and has received proper authorization from the Authority.
- **2.2.5.4.**—(*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 Authority.
 - and Skill
 Tests and
 Checks:
 Time, Place,
 Designated.
 Persons and
 Format.

Knowledge

- (b) The knowledge test shall 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.
- **2.2.5.5**—(*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.
- (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;

Knowledge and Skill Tests and Checks-Prerequisites, Passing Grades and Retesting After Failure.

- (2) Signature;
- (3) Date of birth, which shows the applicant meets or will meet the age requirements of Part 2 for the licence sought before the expiration date of the airman knowledge test report; and
- (4) Actual residential address, if different from the applicant's mailing address.
- (d) The Authority shall 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 calendarmonth 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 crewmember 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.

- (g) Cheating or other unauthorised conduct.
 - (a) An applicant for a knowledge test may not:
 - (1) Copy or intentionally remove any knowledge test;
 - (2) Give to another applicant or receive from another applicant any part or copy of a knowledge test;
 - (3) Give assistance on , or receive assistance on a knowledge test during the period that test is being given;
 - (4) Take any part of a knowledge test on behalf of another person;
 - (5) Be represented by, or represent another person for a knowledge test:
 - (6) Use any material or aid during the time the test is being given, unless specifically authorized to do so by the Authority; and
 - (7) Intentionally cause, assist, or participate in any act prohibited by this paragraph.
- (b) An applicant who the Authority finds has committed an act prohibited by paragraph (a) of this section is prohibited, for 1 year after the date of committing that act, from:
 - (1) Applying for any licence, rating, or authorization issued under part 2 of these Regulations; and
 - (2) Applying for and taking any test under part 2 these Regulations;
 - (3) Any licence or rating held by the applicant may be suspended or revoked if the Authority finds that person has committed an act prohibited by this section.
- **2.2.5.6.**—(a) The Authority may rely on the training and/or testing system administered by another Contracting State as the basis for its own approved training curriculum, including the administration of written and/or skill test requirements for airman licences provided that the Authority has an agreement with the other Contracting State whose training and/or testing system is used.

Training and Testing in another Contracting State.

Reliance on

(b) The applicant shall apply for and receive written approval from the Authority prior to receiving training and/or testing in a system administered by another Contracting State.

Instructor Requirements -General.

- **2.2.6.**—(a) All applicants for instructor licences and ratings or authorisations shall, in addition to specific requirements contained in this Part, 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:
 - (1) Techniques of applied instruction;
- (2) Assessment of student performance in those subjects in which ground instruction is given;
 - (3) The learning process;
 - (4) Elements of effective teaching;
 - (5) Student evaluation and testing, training philosophies;
 - (6) Training programme development;
 - (7) Lesson planning;
 - (8) Classroom instructional techniques;
- (9) Use of training aids, including flight simulation training devices as appropriate;
 - (10) Analysis and correction of student errors;
 - (11) Human performance relevant to flight instruction;
- (12) Hazards involved in simulating system failures and malfunctions in the aircraft; and
 - (13) Principles of threat and error management.
 - (b) The following applicants do not need to comply with paragraph (a) of this subsection—
 - (1) The holder of an instructor licence or authorisation issued under this part who has already passed the knowledge test in the areas of instructing;
 - (2) The holder of a current teacher's certificate issued by a national or local authority that authorises the person to teach at a secondary educational level or higher; or
 - (3) A person who provides evidence of an equivalent level of experience acceptable to the Authority.

2.2.7.—(a) The Authority may designate private individuals to act as representatives of the Director General of the Authority in examining, inspecting, and testing persons and aircraft for the purpose of issuing airmen and aircraft licences, ratings and certificates.

Designated Examiners.

- (b) The specific requirements for each type of designated examiner are contained in the appropriate licensing section of Part 2 related to the licensing requirements of the persons to be examined.
- (c) The Authority will issue each designated examiner a certificate of designated authority and a designee identification card specifying the kinds of designation for which the individual is qualified and the duration of the designation.
- **2.2.8.**—(*a*) The licence shall be made of a suitable material as listed in ICAO *Annex* 1 : 5.1.2.

Specifications and Format of the Licence.

- (b) The licence format shall be in a form and manner prescribed by the Authority.
 - (c) The items required on the licence are indicated in IS 2.2.8.
 - (d) The licence shall contain the expiration date of the licence and ratings.
 - (e) The licence shall be issued in the English language.
- 2.2.9. Suspension or Revocation of a Licence, Rating, Authorisation or Certificate.
- **2.2.9.1.**—(a) If, in accordance with the Civil Aviation Act 2006 the Authority determines that the interests of safety require that a license, rating, authorisation or certificate must be suspended, the Authority may act as follows:

Suspension of a Licence, Rating Authorisation or Validation Certificate

- (1) If the Authority discovers facts indicating either a lack of competency or lack of qualification, the Authority may, require an applicant for or the holder of any license, rating, 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 Authority may suspend the validity of any such license, rating, authorisation and/or validation certificate pending the results of such retesting.
- (2) 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 Part 1:1.3.

- (3) After notifying the person involved, in writing, stating the reasons for such action, the Authority may also suspend the validity of any license, rating, 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 affected.
- (4) 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 Authority all licenses or validation certificates in his or her possession that are subject to the suspension within 8 days of receiving the notification of the order. If the person fails to surrender the documents under suspension, the Authority may revoke all such certificate(s) held by that person.
- (5) When a suspension is limited to one or more ratings mentioned on the license or validation certificate, the Authority shall provide the person involved with a new license or validation certificate omitting all ratings which are subject to the suspension.
 - (6) The Authority may cancel a suspension in the following cases :
 - (i) If person under suspension has taken and passed the knowledge or practical tests required for any license, rating, or 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.
- (7) Once the suspension has been cancelled, other than by revocation, the Authority shall issue the person involved a new license or validation certificate.

Suspension of a Medical Certificate.

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

- (b) The 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 shall be notified in writing of a suspension stating the reasons for that suspension.
- (*d*) The person holding the suspended medical certificate shall surrender the medical certificate in his or her possession to the Authority within 7 days after the date of receiving the notification.
- (e) In cases in which the medical fitness of the person involved allows it, the Authority may provide the person with a suspended medical certificate of a particular class with a new medical certificate of a lower class.
- (f) A suspension may be lifted if the medical examination intended in (a) has been passed satisfactorily. If a suspension is lifted, the person involved shall receive a new medical certificate unless the medical certificate was revoked.
- **2.2.9.3**—(*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.
- Revocation of Licences, Ratings Authorisations or Certificates.
- (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 Authority 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 Authority.
- (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 Authority 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

Applicability.

- **2.3.1.1.**—(*a*) This Section prescribes the requirements for the issue, renewal and re-issue, if applicable, of pilot licences, ratings and authorisations.
- (b) A person shall not act either as pilot-in-command or as co-pilot of an aircraft in any of the following categories unless that person is the holder of a pilot licence issued in accordance with the provisions of this Section :
 - (1) aeroplane.
 - (2) airship of a volume of more than 4 600 cubic metres.
 - (3) free balloon.
 - (4) glider.
 - (5) helicopter.
 - (6) powered-lift.

General Rule Concerning Licences, Ratings and Authorisations.

- **2.3.1.2.**—(*a*)(*i*) An applicant shall, before being issued with any pilot 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.
- (ii) An applicant for any pilot licence or rating shall demonstrate, in a manner determined by the Authority, such requirements for knowledge and skill as are specified for that licence or rating.
- (b) A person shall not act either as PIC or as co-pilot of an aircraft in any of the categories unless that person is the holder of a pilot 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.

Authority to Act as a Flight crew member.

- **2.3.1.3.**—(*a*) A person shall not act as a pilot flight crewmember of an aircraft registered in Nigeria 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.
- (c)During a skill test, the applicant acts as PIC but the safety pilot will intervene in safety situations.

2.3.1.4.—(a) A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction and PIC flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.

Crediting of Flight Time.

- (b) The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by Nigeria 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. Nigeria may authorise that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in a multi-crew operation.
- (c) The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated to be operated with a co-pilot, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- (d) The holder of a pilot licence, when acting as PIC under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- **2.3.1.5.**—(*a*) No person who holds a pilot licence issued under this Part shall serve as a PIC in single pilot operations on a civil aircraft of Nigerian 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 Nigerian 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.

Limitation of Privileges of Pilots who have Attained their 60th Birthday and Curtailment of Privileges of Pilots who have Attained their 65th Birthday.

2.3.1.6.—*Note*: For commercial air transport operations, see Nig. CARs 8:8.4.

eet the Proficiency
Requirements

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

Non-Commercial Air

Recent Experience

No person shall operate as PIC of an aircraft unless, that pilot has within 24 months, accomplished a flight review that includes:

Transport Operations.

(1) A review of the current general operating and flight rules of Nig. CARs Part 8;

- (2) A review of those manoeuvres and procedures that, at the discretion of the person giving the review are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot licence;
- (3) A proficiency check in the appropriate aircraft for the licence, ratings or authorisations held, unless within the past 12 months, the pilot has satisfactorily completed one of the following—
 - (*i*) A pilot proficiency check or practical test conducted by a designated examiner, for a pilot certificate, rating, or operating privilege.
 - (ii) A practical test conducted by a designated examiner for the issuance of a flight instructor certificate, an additional rating on a flight instructor certificate, renewal of a flight instructor certificate, or reinstatement of a flight instructor certificate; and
- (4) A logbook endorsement from an authorised instructor who gave the review, certifying that the person has satisfactorily completed the review required in (*i*) and (*ii*) above and completed the applicable proficiency check.
 - (a) Aircraft type certificated for more than one pilot.
 - (1) No person may act as PIC of an aircraft type certified for more than one pilot or a turbojet aircraft unless, since the beginning of the past 12 calendar months, he or she has passed a proficiency check in an aircraft, or in a flight simulation training device approved for the purpose, with a designated examiner.
 - (2) No person may act as co-pilot of an aircraft type certified for more than one pilot unless, since the beginning of the past 12 calendar-months, he or she has logged 3 takeoff and landings as the sole manipulator of the controls in the aircraft of the same type, or in a flight simulation training device approved for the purpose, with each takeoff and landing to full stop, and have satisfactorily completed ground training appropriate to the aircraft type.
- (b) Aircraft type certificated for single pilot and requiring a type rating on the pilot license. No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the 12 calendar-months, he or she has passed a proficiency check with a designated examiner in the category, class and type of aircraft to be operated, or in a flight simulation training device approved for the purpose.
- (e) Recency for Carriage of Passengers. No person may act as PIC or co-pilot of an aircraft carrying passenger sunless, within the preceding 90 days that pilot has:

- (1) Made 3 takeoffs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and if a type rating is required, of the same type or in a flight simulation training device approved for the purpose.
- (2) For a tail wheel aeroplane, made the 3 takeoffs and landings in a tail wheel aeroplane with each takeoff and landing to a full stop.
- (3) For night operations, made the 3 takeoffs and landings required by paragraph (a)(1) at night with each takeoff and landing to a full stop.
- (f) IFR Operations—A pilot shall not operate as PIC of an aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless within the preceding twelve (12) months:
 - (1) The pilot had an instrument proficiency check on the maneuvers in the IR Skill Test and Proficiency Check contained in IS 2.3.8.2, or
 - (2) Has logged in actual or simulated conditions six hours instrument flight time including at least three hours in flight in the category of aircraft; to include.
 - (i) six instrument approaches;
 - (ii) holding procedures and tasks; and
 - (iii) intercepting and tracking courses through the use of navigational electronic systems.
- (g) Night Vision Goggle Operations—No person may act as PIC in a night vision goggle operation unless.
 - (1) that pilot has performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle operation, within the preceding 60 days to carry passengers on board, or within the preceding 120 days to act as PIC without passengers on board:
 - (i) three takeoffs and landings, with each takeoff and landing including a climb out, cruise, descent, and approach phase of flight, if the pilot intends to use night visions goggles during the takeoff and landing phase of flight;
 - (ii) three hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;
 - (iii) three area departure and area arrival tasks;
 - (*iv*) three tasks of transitioning from aided night flight to unaided night flight and back to aided night flight.

- (ν) three night vision goggle operations, or when operating helicopters or powered-lifts, 6 night vision goggle operations; or
- (2) Successfully completed a proficiency check with an authorised representative of the Authority.

Recording of Flight Time.

- **2.3.1.7.**—(*a*) Each person shall document and record the following time in a manner acceptable to the Authority as outlined in IS 2.3.1.7:
- (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.

General.

- **2.3.2.1.**—(*a*) The holder of a pilot licence shall not be permitted to act as PIC or as co-pilot of an aircraft unless the holder has received the applicable ratings, authorisations and/or endorsements as follows:
 - (1) The appropriate aircraft category rating specified in this Part;
 - (2) The appropriate class rating when required in accordance with in this Part;
 - (3) A type rating when required in accordance with this Part;
 - (4) An authorisation when required in accordance with this Part; or
 - (5) An endorsement when required in accordance with this Part.
 - (b) The applicant shall meet the appropriate requirements of 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 shall be entered on the licence.
 - (d) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorisation may be provided in writing to the licence holder by the Authority in place of issuing the class or type rating in accordance with (a). This authorisation shall be limited in validity to the time needed to complete the specific flight.

Category Ratings.

2.3.2.2.—(a)(1) The category of aircraft shall be included in the title of the licence itself, or endorsed as a category rating on the licence.

- (2) Category ratings shall not be endorsed on a licence when the category is included in the title of the licence itself.
 - (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 is 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; and
 - (iv) Pass the required skill test for the aircraft category, and if applicable, class rating being sought.
 - (ν) When the holder of a pilot licence seeks a licence for an additional category of aircraft, the Authority shall either: issue the licence holder with an additional pilot licence for that category of aircraft; or endorse the original licence with the new category rating, subject to the conditions of 2.3.2.2.
- (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.**—(a)(1) The class of aircraft, if applicable, shall be endorsed on the licence as a rating.

Class Ratings.

(2) The applicant shall have demonstrated a degree of skill appropriate to the licence in an aircraft of the class for which the rating is sought.

- (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 is 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; and
 - (ii) Have completed 12 hours flight time within the 12 months preceding the expiry date.
 - (2) For the renewal of a multi-engine class rating the pilot shall:
 - (i) Within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the skill test that is applicable to the level of 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.**—(*a*) The type rating shall be endorsed on the licence as a rating, including any limitations.

Type Ratings.

- (b) The applicant shall have:
- (1) gained, under appropriate supervision, experience in the applicable type of aircraft and/or flight simulator in the following :
 - (i) normal flight procedures and maneuvers during all phases of flight;
 - (ii) abnormal and emergency procedures and maneuvers in the event of failures and malfunctions of equipment, such as engine, systems and airframe:
 - (iii) where applicable, instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure;
 - (iv) procedures for crew incapacitation and crew coordination including allocation of pilot tasks; crew cooperation and use of checklists;
- (2) demonstrated the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the duties of a pilot-in-command or a co-pilot as applicable; and

- (3) demonstrated, at the airline transport pilot licence level, an extent of knowledge determined by the Authority on the basis of the requirements specified in 2.3.6.1(c) of this regulation.
 - (i) Applicants seeking a private or commercial licence in an aircraft that requires a type rating shall also complete the applicable portions of either PPL or CPL skill test in conjunction with the ATPL skill test.
 - (*ii*) The applicant shall have demonstrated the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the licensing requirements and piloting functions of the applicant.
- (c) Privileges.—Subject to compliance with the requirements specified in this Part, the privileges of the holder of a type rating are to act as a pilot on the type of aircraft specified in the rating. When a type rating is issued limiting the privileges to act as co-pilot or limiting the privileges to act as pilot only during the cruise phase of flight, such limitation shall be endorsed on the rating.
- (d) Validity.—Subject to compliance with the requirements in this Part, the validity period of a type rating is 1 calendar year.
 - (e) Renewal.—For the renewal of a type rating the pilot shall:
 - (1) Within the preceding 12 calendar months, complete a proficiency check: in the areas of operation listed in the skill test for the appropriate category, type and if applicable class of aircraft.
 - (2) Have completed 10 route sectors within the 3 months preceding the expiry date.
 - (3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.
 - (f) Re-issue.—If the type rating has been expired the applicant shall:
 - (1) Have received refresher training from an 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**—(*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.

Category II and III Authorisation.

- (1) A person, not flying for an AOC holder under Part 9, may not act as pilot of an aircraft during Category II or III operations unless that person holds a Category II or III pilot 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 on the 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 areas of operation 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 areas of operation listed in IS 2.3.2.5.
 - (g) Validity—Subject to compliance with the requirements specified in this Part, the validity period of a Category II and III 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 areas of operation listed in IS 2.3.2.5.
 - (i) Re-issue.—If the Category II or the Category III have been expired the applicant shall:
 - (1) Have received refresher training from an 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.

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Complex Aeroplane Endorsement.

- **2.3.2.6.**—(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.

High Performance Aeroplane Endorsement.

- **2.3.2.7.**—(*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.
- **2.3.2.8.**—(a) No person shall act as pilot in command of a pressurised aircraft capable of operating at high altitudes (an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 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 highaltitude 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.

High Altitude Aircraft Endorsement.

- (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 pressurised 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 depressurising the aircraft; and
 - (iii) Emergency descent procedures.
 - **2.3.2.9.**—(a) No person shall act as pilot of an aircraft using night vision goggles, unless the person has received training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following ground training:

Night Vision Goggles Endorsement.

- (1) Applicable portions of Part 2 and Part 8 that relate to night vision goggle limitations and flight operations;
- (2) Aeromedical factors related to the use of night vision goggles, including how to protect night vision, how the eyes adapt to night, self-imposed stresses that affect night vision, effects of lighting on night vision, cues used to estimate distance and depth perception at night, and visual illusions;
- (3) Normal, abnormal, and emergency operations of night vision goggle equipment;
 - (4) Night vision goggle performance and scene interpretation;
- (5) Night vision google operation flight planning, including night terrain interpretation and factors affecting terrain interpretation;
- (b) No person shall act as pilot of an aircraft using night vision goggles, unless the person has received training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished at least the following flight training:
- (1) Preflight and use of internal external aircraft light systems for night vision goggle operations;
- (2) Preflight preparation of night vision goggles for night vision goggle operations;
- (3) Proper piloting techniques when using night vision goggles during the takeoff, climb, enroute descent and landing phases of flight; and
- (4) Normal, abnormal, and emergency flight operations using night vision goggles.

- (c) The requirements under paragraphs (a) and (b) of this section do not apply if a person can document satisfactory completion of any of the following pilot proficiency checks using night vision goggles in an aircraft:
- (1) A pilot proficiency check on night vision goggle operations conducted by the military.
- (2) A pilot proficiency check on night vision goggle operations under MCAR part 2 or part 8 conducted by an Examiner or Check Airman.
- (3) A pilot proficiency check on night vision goggle operations conducted by a night vision goggle manufacturer or authorized instructor, when the pilot—
 - (i) IS employed by a government or Law Enforcement Agency; and
 - (ii) has logged at least 20 hours as pilot in command in night vision goggle operations.

2.3.3. STUDENT PILOTS

General Requirements.

- **2.3.3.1.**—(*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 for the category of aircraft to be flown and Part 8;
- (2) Airspace rules and procedures for the aerodrome where the student will perform solo flight; and
- (3) Flight characteristics and operation limitations for the make and model of aircraft to be flown.
- (c) Pre-solo flight instruction.—Prior to conducting a solo flight, a student pilot shall have:
- (1) Received and logged flight training for the manoeuvres and procedures applicable to the aircraft category including flight training in those manoeuvres and procedures at night, if the solo flight is to be conducted at night.
- (2) Demonstrated satisfactory proficiency and safety, as judged by an authorised instructor, on the manoeuvres and procedures for the appropriate category, and class if applicable, of aircraft.

- (d) Solo flight requirements: A student pilot shall not fly solo:
- (1) Unless holding at least a Class 2 Medical Certificate; and
- (2) Unless under the supervision of, or with the authority of, an authorized flight instructor, and;
- (3) In international flight unless there is a special or general arrangement between Nigeria and the intended State of flight.
- (e) A student pilot shall meet the requirements prescribed by the Authority. The Authority shall ensure that the privileges granted shall not permit student pilots to constitute a hazard to air navigation.
- **2.3.3.2.** Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Traning-Aeroplane Category.
 - (a) An applicant for a student pilot authorisation in the aeroplane category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.2.
- **2.3.3.3.** Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training-Helicopter Category.
 - (a) An applicant for a student pilot authorisation in the helicopter category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.3.
- **2.3.3.4.** Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training-Powered-Lift Category.
 - (a) An applicant for a student pilot authorisation in the powered-lift category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.4.
- **2.3.3.5.** Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training-Airship Category.
 - (a) An applicant for a student pilot authorisation in the airship category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.5.
- **2.3.3.6.** Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training-Balloon Category.
 - (a) An applicant for a student pilot authorisation in the balloon category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.6.

- **2.3.3.7.** Student Pilot Manoeuvres and Procedures for Pre-Solo Flight Training-Glider Category.
- (a) An applicant for a student pilot authorisation in the glider category shall receive training in the manoeuvres and procedures contained in IS 2.3.3.7.

2.3.4. PRIVATE PILOT LICENCE

General Requirements.

- **2.3.4.1.**—(*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 shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:

(1) Air law—

- (i) rules and regulations relevant to the holder of a private pilot licence; rules of the air; altimeter setting procedures; appropriate air traffic services practices and procedures;
- (2) Aircraft general knowledge for aeroplanes, airships, helicopters and powered-lifts—
 - (i) principles of operation and functioning of engines, systems and instruments;
 - (ii) operating limitations of the relevant category of aircraft and engines; relevant operational information from the flight manual or other appropriate document;
 - (iii) for helicopters and powered-lifts, transmission (power trains) where applicable;
 - (iv) for airships, physical properties and practical application of gases;
 - (3) Flight performance, planning and loading—
 - (i) effects of loading and mass distribution on flight characteristics; mass and balance calculations;
 - (ii) use and practical application of take-off, landing and other performance data;

- (iii) pre-flight and en-route flight planning appropriate to private operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; position reporting procedures; altimeter setting procedures; operations in areas of high-density traffic.
- (4) Human performance.
- (i) Human performance relevant to the appropriate category of Aircraft including principles of threat and error management;
 - (5) Meteorology.
 - (i) Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions;
 - (6) Navigation.
- (i) Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;
 - (7) Operational procedures.
 - (i) Application of threat and error management to operational performance;
 - (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;
 - (ν) In the case of helicopters, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;
 - (8) Principles of flight.
 - (i) Principles of flight relating to the appropriate category of aircraft;
 - (9) Radiotelephony.
 - (i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

- (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
- (2) Pass the required written knowledge test on the knowledge areas listed in item (c).
- (e) Experience and Flight Instruction.—An applicant for a PPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
 - (f) Skill—The applicant for a PPL shall:
- (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
- (2) Have demonstrated by passing a skill test the ability to perform as PIC of an aircraft, within the appropriate category areas of operation described in the appropriate IS listed below, with a degree of competency appropriate to the privileges granted to the holder of a PPL.
 - (3) Have demonstrated the ability to—
 - (i) Recognize and manage threats and errors;
 - (ii) Operate the aircraft within its limitations;
 - (iii) Complete all manoeuvres with smoothness and accuracy;
 - (iv) Exercise good judgement and airmanship;
 - (v) Apply aeronautical knowledge; and
 - (*vi*) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.
 - (g) Privileges.

Subject to compliance with the requirements specified in this Part, the privileges of the holder of a PPL shall be to act, but not for remuneration, as PIC or co-pilot of an aeroplane aircraft within the appropriate aircraft category engaged in non-revenue flights.

- (i) The privileges of the holder of a glider category rating shall be to act as pilot-in-command of any glider provided the holder has operational experience in the launching method used.
- (ii) If passengers are to be carried, the holder shall have completed not less than 10 hours of flight time as a pilot of gliders.

- (iii) If the privileges of the rating are to be exercised at night, the applicant shall have gained, under appropriate supervision, operational experience in free balloons in night flying.
- (*iv*) If passengers are to be carried for remuneration or hire, the holder shall have completed not less than 35 hours of flight time including 20 hours as a pilot of a free balloon.
- (v) The privileges of the holder of a free balloon category rating shall be to act as pilot-in-command of any free balloon provided that the holder has operational experience in hot air or gas balloons as appropriate.
- (vi) Before exercising the privileges at night, the holder of free balloon category rating shall have complied with the requirements specified in this regulations.
- (h) Validity.—Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years.
- (i) Renewal.—A private pilot licence that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.
- (*j*) *Reissue*.—If the private pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test

2.3.4.2.—(*a*) Experience.

- (1) The applicant for a PPL (A) shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as pilot of aeroplanes, appropriate to the class rating sought. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 or 35 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed 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 difference aerodromes shall be made.
- (3) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as PIC towards a PPL (A).
 - (b) Flight Instruction.

Experience and Flight Instruction for the PPL-Aeroplane Category.

- (1) The applicant for a PPL (A) shall receive and log not less than 20 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.4.2. These 20 hours may include 5 hours completed in a flight simulation training device. 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;
 - (ν) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
 - (vi) Normal and cross-wind take-offs and landings;
 - (vii) Maximum performance (short field and obstacle clearance take-offs, short-field landings;
 - (viii) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;
 - (*ix*) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
 - (x) Emergency operations, including simulated aeroplane equipment malfunctions; and
 - (xi) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
 - (xii) Recognize and manage threats; and errors
 - (xiii) As further specified in IS 2.3.4.2.
- (3) If the privileges of the PPL(A) are to be exercised at night, the applicant shall have received 4 hours dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.

- **2.3.4.3.** PPL Skill Test-Aeroplane Category.
- (a) The requirements for the skill test for the PPL(A) are included in IS 2.3.4.2.
- **2.3.4.4.** Experience and Flight Instruction for the PPL-Helicopter Category.
 - (a) Experience.
- (1) The applicant shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as a pilot of helicopters. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 hours or 35 hours, as the case may be. Credit for such experience shall be limited to a maximum of 5 hours.
- (2) The applicant shall have completed in helicopter not less than 10 hours of solo flight time under the supervision of an authorised flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.
- (3) The holder of pilot licences in other powered aircraft categories may be credited with 10 hours of the total flight time as PIC towards a PPL(H).
 - (b) Flight Instruction.
- (1) The applicant for a PPL(H) shall receive and log not less than 20 hours of dual instruction from an authorised instructor on the subjects listed in IS 2.3.4.3. These 20 hours may include 5 hours completed in a flight simulation training device. 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;

- (ν) 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.
- (4) The applicant shall have received dual instrument flight instruction from an authorized flight instructor. The instructor should ensure that the applicant has operational experience in flight by reference solely to instruments, including the completion of a level 180° turn, in a suitably instrumented helicopter.

2.3.4.5. PPL Skill Test-Helicopter Category.

(a) The requirements for the skill test for the PPL(H) are included in IS 2.3.4.3.

2.3.4.6.—(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 will 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 will 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 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.

Experience and Flight Instruction for the PPL—Powered-Lift Category.

- (b) Flight Instruction.—The applicant shall have received not less than 20 hours of dual instruction time in powered-lifts from an authorized flight instructor. 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:
 - (1) recognize and manage threats and errors;
 - (2) pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
 - (3) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) control of the powered-lift by external visual reference;
 - (5) ground maneuvering and run-ups; hover and rolling Ground maneuvering and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings—normal, out of wind and slopping ground; 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) flight by reference solely to instruments, including the completion of a level 180° turn ;
 - (8) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (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; power of reconversion to autorotation and authoritative approach, where applicable; transmission and interconnect driveshaft failure, where applicable;
 - (11) operations to/from and transiting controlled aerodromes, compliance with air traffic services procedures; and
 - (12) communication procedures and phraseology.

Note—The instrument experience specified in 2.3.4.6(b)(7) and the night flying dual instruction specified in 2.3.4.2(b)(3) do not entitle the holder of a private pilot licence to pilot powered-lifts under IFR.

2.3.4.7. PPL Skill Test—Powered-Lift Category.

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Experience and Flight Instruction for the PPL-Airship Category.

- **2.3.4.8.**—(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 kilometres (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.

2.3.4.9. PPL Skill Test-Airship Category.

- (a) The requirements for the skill test for the PPL-Airship are included in IS 2.3.4.5.
- **2.3.4.10.**—(a) Experience.—The applicant for a PPL- balloon shall have completed not less than 16 hours of flight time as pilot of balloons including at least 8 launches and accents, at least one of which must be solo.
- Experience and Flight Instruction for the PPL-Balloon Category.
- (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; and
 - (9) Emergency procedures.

2.3.4.11. PPL Skill Test-Balloon Category.

- (a) The applicant for a balloon category shall have demonstrated the ability to perform as pilot-in-command of a free balloon, the procedures and manoeuvres described in relevant parts of this regulations with a degree of competency appropriate to the privileges granted to the holder of a free balloon pilot licence, and to:
 - (1) Recognize and manage threats and errors;
 - (2) Operate the free balloon within its limitations;
 - (3) Complete all manoeuvres with smoothness and accuracy;
 - (4) Exercise good judgement and airmanship;
 - (5) Apply aeronautical knowledge; and
- (6) Maintain control of the free balloon at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

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

Experience and Flight Instruction for the PPL-Glider Category.

- **2.3.4.12.**—(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; and
 - (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.

PPL Skill Test-Glider Category

- **2.3.4.13.**—(*a*) The requirements for the skill test for the PPL—Glider category are included in the IS 2.3.4.7.
 - **2.3.5.** Commercial Pilot Licence.
- **2.3.5.1.** General requirements for the issue of the licence appropriate to the aeroplane, airship, helicopter and powered-lift categories.
 - (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 shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:
 - (1) Air law
- (i) Rules and regulations relevant to the holder of a commercial pilot licence; rules of the air; appropriate air traffic services practices and procedures;
- (2) Aircraft general knowledge for aeroplanes, airships, helicopters and powered-lifts.
 - (i) Principles of operation and functioning of engines, systems and instruments;
 - (ii) Operating limitations of the relevant category of aircraft and engines; 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 engines of appropriate aircraft;
 - (ν) For helicopters and powered-lifts, transmission (power trains) where applicable;
 - (vi) For airships, physical properties and practical application of gases;
 - (3) Flight performance, planning and loading.
 - (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
 - (ii) Use and practical application of take-off, landing and other performance data;
 - (iii) Pre-flight and en-route flight planning appropriate to commercial operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;
 - (*iv*) In the case of airships, helicopters and powered-lifts, effects of external loading on handling;
 - (4) Human performance.
 - (i) Human performance including principles of threats 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 movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- (iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

(6) Navigation.

- (i) Air navigation, including the use of aeronautical charts, instruments and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of airborne equipment;
 - (ii) In the case of airships;
- (iii) Use, limitation and serviceability of avionics and instruments necessary for control and navigation;
- (*iv*) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids;
- (v) Principles and characteristics of self-contained and external referenced navigation systems, operation of airborne equipment;

(7) Operational procedures.

- (i) Application of threat and error management to operational performance;
- (ii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
 - (iii) Altimeter setting procedures;
- (iv) Appropriate precautionary and emergency procedures; (v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods;
- (*vi*) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

- (vii) In the case of helicopters, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;
- (8) Principles of flight.
- (i) Principles of flight to the appropriate category of aircraft;
- (9) Radiotelephony.
- (i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure; and
- (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.
- (2) Pass the required knowledge test on the knowledge subjects listed above.
- (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.
- (2) Have demonstrated by passing a skill test the ability to perform as PIC of an aeroplane, the areas of operation as listed in IS: 2.3.5.2.with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to.
 - (i) Operate the aeroplane within its limitations;
 - (ii) Complete all manoeuvres with smoothness and accuracy;
 - (iii) Exercise good judgement and airmanship;
 - (iv) Apply aeronautical knowledge; and
 - (ν) Maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.
 - (vi) recognize and manage threats and errors.

- (g) Privileges.—Subject to compliance with the requirements specified in this Part, the privileges of the holder of a CPL shall be:
- (1) To exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;
- (2) To act as PIC in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
- (3) To act as PIC in commercial air transportation in an aircraft within the appropriate aircraft category certificated for single-pilot operation;
- (4) To act as co-pilot in aircraft within the appropriate aircraft category required to be operated with a co-pilot; and
 - (5) For the airship category, to pilot an airship under IFR.
- (h) Validity.—Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.4.
- (i) Renewal.—A commercial pilot licence that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.
- (*j*) *Reissue*.—If the commercial pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.
- **2.3.5.2.** Experience 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 an NCAA approved training course provided for in an Approved Training Organisation under Part 3, as a pilot of aeroplanes, of which 10 hours may have been completed in a flight simulation training device.
 - (2) The applicant shall have completed in aeroplanes not less than:
 - (i) 100 hours as PIC or, in the case of a course of approved training, 70 hours as PIC:
 - (ii) 20 hours of cross-country flight time as PIC including a cross-country flight 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 PIC.
- (3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:
 - (i) 10 hours as PIC in a category other than helicopters; or
 - (ii) 30 hours as PIC holding a PPL(H) on helicopters; or
 - (iii) 100 hours as PIC holding a CPL(H) on helicopters.
- (4) The applicant for a CPL(A) shall hold a PPL(A) issued under this Part.
 - (b) Flight Instruction.
- (1) The applicant for a CPL(A) shall receive and log not less than 25 hours of dual instruction from an authorised instructor. These 25 hours may include 5 hours completed in a flight simulation training device.
- (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) 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;
 - (ν) Flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;
 - (vi) Flight with asymmetrical power for multi-engine class or type ratings;
 - (vii) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
 - (viii) Normal and cross-wind take-offs and landings;
 - (ix) Maximum performance (short field and obstacle clearance takeoffs, 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.
- (c) Skill test. The requirement for the skill test for the commercial pilot licence-aeroplane category are included in IS 2.3.5.2.

2.3.5.3. CPL Skill Test-Aeroplane Category.

- (a) The requirement for the skill test for the commercial pilot licence—aeroplane category are included in IS 2.3.5.2.
- **2.3.5.4.** 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 simulation training device.
 - (2) The applicant shall have completed in helicopters not less than:
 - (i) 35 hours as PIC;
 - (ii) 10 hours of cross-country flight time as PIC including a cross-country flight in the course of which full-stop landings at two different points shall be made;
 - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;
 - (*iv*) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.
- (3) The holder of a pilot licence in another category may be credited towards the 150 hours of flight time as follows:
 - (i) 20 hours as PIC holding a PPL(A) in aeroplanes; or

- (ii) 50 hours as PIC holding a CPL(A) in aeroplanes.
- (4) The applicant for a CPL(H) shall hold a PPL(H) under 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 authorised flight instructor on the subjects listed in IS 2.3.5.3.
- (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;
 - (ν) 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;
 - (xiii) As further specified in IS 2.3.5.5.
- (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.

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CPL Skill Test-Helicopter Category.

2.3.5.5.—(*a*) The requirements for the skill test for the commercial pilot licence—helicopter category are included in IS 2.3.5.3.

Experience and Flight Instruction for the CPL– Powered-Lift Category.

2.3.5.6.—(a) Experience.

- (1) The applicant shall have completed not less than 200 hours of flight time in a powered-lift, or 150 hours if completed during a course of approved training, as a pilot of aircraft. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 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 PIC.
- (3) When the applicant has flight time as pilot of aircraft in other categories, the Authority may determine whether such experience is acceptable and if so, the extent to which the flight time requirements in item (a) may be reduced.
- (b) Flight instruction.—The applicant shall have received dual instruction in powered-lift from an 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 minimise their negative effects;
- (2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
- (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Control of the powered-lift by external visual reference;

- (5) Ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings normal, out of wind and slopping ground; steep approaches;
- (6) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- (7) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
- (8) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- (9) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
- $(10)\,\rm Emergency$ operations, including simulated powered-lift equipment malfunctions, where applicable ; power of reconversion 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.
- (12) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm.
 - **2.3.5.7.** CPL Skill Test-Powered-Lift Category.

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- **2.3.5.8.**—(a) Experience.
- (1) The applicant shall have completed not less than 200 hours of flight time as a pilot.
 - (2) The applicant shall have completed not less than:
 - (i) 50 hours as a pilot in airships;
 - (ii) 30 hours as PIC or PIC under supervision in airships, to include not less than:
 - (A) 10 hours of cross-country flight time; and
 - (B) 10 hours of night flight;
 - (*iii*) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and

Experience and Flight Instruction for the CPL— Airship Category.

- (*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) Recognise and manage threats and errors;
 - (2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;
 - (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures ;
 - (4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
 - (5) Control of the airships by external visual reference;
 - (6) Recognition of leak;
 - (7) Normal take-offs and landings;
 - (8) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;
 - (9) Flight under IFR;
 - (10) Cross-country flying using visual reference, dead reckoning and, where applicable, radio navigation aids;
 - (11) Emergency operations, including simulated airship equipment malfunctions;
 - (12) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
 - (13) Communications procedures and phraseology.

CPL Skill Test— Airship Category. **2.3.5.9.**—(*a*) The requirements for the skill test for the CPL-Airship category are included in IS 2.3.5.5.

Experience and Flight Instruction for the CPL-Balloon Category.

- **2.3.5.10.**—(a) Experience.—The applicant shall have completed at least:
 - (1) 35 hours flight time as a pilot, including at least:
 - (i) 20 hours as a pilot of free balloons;
 - (ii) 10 flights in a free balloon; and

- (iii) 2 flights in a free balloon as the pilot in command.
- (2) 10 hours of flight training that includes at least 10 training flights in a free balloon on the areas of operation listed in (b) below, including at least:
 - (i) For a gas balloon rating:
 - (A) 2 training flights of 2 hours each in a bas balloon on the areas of operations appropriate to a gas balloon within 60 days prior to application for the rating;
 - (B) 2 flights performing the functions of PIC in a gas balloon on the appropriate areas of operation; and
 - (C) 1 flight involving a controlled ascent to 5,000 feet above the launch site.
 - (ii) For a hot air balloon rating:
 - (A) 3 training flights of 1 hour each in a balloon with an airborne heater on the areas of operation appropriate to a balloon with an airborne heater within 60 days prior to application for the rating;
 - (B) 2 solo flights in a balloon with an airborne heater on the appropriate areas of operations; and
 - (C) 1 flight involving a controlled ascent to 3,000 feet above the launch site.
- (b) Flight instruction.—The applicant shall have received dual instruction in balloons from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
 - (1) Recognise and manage threats and errors;
 - (2) Technical subjects;
- (3) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;
 - (4) Pre-flight lesson on a manoeuvre to be performed in flight;
- (5) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
- (6) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
 - (7) Collision avoidance precautions;
 - (8) Control of a free balloon by external visual references;

- (9) Recognition of and recovery from rapid descents;
- (10) Navigation and cross-country flying using visual reference and dead reckoning;
 - (11) Approaches and landings, including ground handling;
 - (12) Emergency procedures; and
 - (13) Post-flight procedures.

CPL Skill Test-Balloon Category. **2.3.5.11.**—(*a*) The requirements for the skill test for the CPL-Balloon category are included in IS 2.3.5.6.

Experience and Flight Instruction for the CPL-Glider Category.

- **2.3.5.12.**—(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) Recognise and manage threats and errors;
 - (2) Pre-flight preparation;
 - (3) Pre-flight procedures;
 - (4) Aerodrome and glider port operations;
 - (5) Launches and landings;

- (6) Performance speeds;
- (7) Soaring techniques;
- (8) Performance manoeuvres;
- (9) Navigation;
- (10) Slow flight and stalls;
- (11) Emergency procedures; and
- (12) Post-flight procedures.
- **2.3.5.13.**—(*a*) The requirements for the skill test for the CPL–Glider category are included in IS 2.3.5.7.

CPL Skill Test—Glider Category.

- 2.3.6. Multi-Crew Pilot Licence-Aeroplane Category
- **2.3.6.1.**—(a) Age.—The applicant for the MPL shall be not less than 18 years of age.

General Requirements for the Issue of the Licence.

- (b) Medical fitness.—The applicant for the MPL shall hold a current Class 1 Medical Certificate issued under this Part.
- (c) *Knowledge*.—The applicant for the MPL shall meet the requirements specified in 2.3.7.1 (c) for the ATPL appropriate to the aeroplane category.
 - (d) Knowledge Testing.—The applicant for an MPL shall.
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
- (2) Pass the required written knowledge test on the knowledge areas specified in 2.3.7.1 (c).

Note: Depending upon the particular MPL curriculum, the knowledge test for the MPL may need to be an integrated test in that it contains elements of PPL, CPL, IR and/or ATPL knowledge.

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

- (f) Skill.—The applicant for an MPL shall demonstrate the skills required for fulfilling all the required competency units in IS: 2.3.6.2 as pilot flying and pilot not flying, to the level required to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR, and have been continuously assessed in the training progress of acquiring the following skills:
 - (1) Recognize and manage threats and errors.
 - (2) Smoothly and accurately, manually control the aeroplane within its limitations at all times, such that the successful outcome of a procedure or maneuver is assured;
 - (3) Operate the aeroplane in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation:
 - (4) Perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight; and
 - (5) Communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures (SOPs) and use of checklists.
 - (6) Have been continuously assessed in the training progress of acquiring the skills specified in this subpart.
- (g) Privileges. —The privileges of the holder of a multi-crew pilot licence shall be as follows:
 - (7) Subject to compliance with the requirements specified in this Part, the privileges of the holder of a multi-crew pilot licence shall be:
 - (i) to exercise all the privileges of the holder of a private pilot licence in the aeroplane category provided the private pilot experience requirements of paragraph 2.3.4.2 have been met;
 - (ii) to exercise the privileges of the instrument rating in a multi-crew operation; and
 - (iii) to act as co-pilot of an aeroplane required to be operated with a co-pilot.
 - (8) Before exercising the privileges of the instrument rating in a single-pilot operation in aeroplanes, the licence holder shall have demonstrated an ability to act as pilot-in-command in a single-pilot operation exercised by reference solely to instruments and shall have met the instrument rating skill requirement specified in 2.3.8.2 appropriate to the aeroplane category.

- (9) Before exercising the privileges of a commercial pilot licence in a single-pilot operation in aeroplanes, the licence holder shall have:
 - (i) completed in aeroplanes 70 hours, either as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
 - (ii) completed 20 hours of cross-country flight time as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and 10 hours as pilot-in-command under supervision, including a cross-country flight totaling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made; and
 - (iii) met the requirements for the commercial pilot licence specified in 2.3.5.1 (c), 2.3.5.1 (f), 2.3.5.2 (a)(2) (with the exception of (i)) appropriate to the aeroplane category.
- *Note* 1 : When a the Authority grants single-pilot operation privileges to the holder of a multi-crew pilot licence, it can document the privileges through an endorsement of the multi-crew pilot licence or through the issuance of a commercial pilot licence in the aeroplane category.
- *Note* 2 : Certain privileges of the licence are curtailed by licence holders when they reach their 65th birthday.
 - (h) Validity.—Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal or reissue, see 2.2.1.7.
 - (i) Renewal.—A multi-crew pilot licence that has not expired may be renewed for an additional five years if the holder presents to the Authority satisfactory evidence that the licence, medical certificate, and recency of experience are current.
 - (*j*) *Reissue*.—If the multi-crew pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the multi-crew pilot skill test.
 - **2.3.6.2.**—(*a*) *Experience*.—The applicant shall have completed in an approved training course not less than 240 hours as pilot flying and pilot not flying of actual and simulated flight.
 - (1) The flight experience in actual flight shall include at least the experience for a PPL(A) as in 2.3.4.2, upset recovery training, night flying and flight by reference solely to instruments.

Experience, Flight Instruction, and Skill Test for the Multi-crew Pilot LIcence-Aeroplane Category.

- (2) In addition to meeting the provisions of 2.3.6.2(a)(1), the applicant shall have gained, in a turbine-powered aeroplane certificated for operations with a minimum crew of at least two pilots, or in a flight simulation training device approved for that purpose by the Authority, the experience necessary to achieve the advance level of competency defined in IS: 2.3.6.2.
 - (b) Flight instruction.
- (1) The applicant shall have completed a course of approved training covering the experience requirements specified in 2.3.6.2(a).
- (2) The applicant shall have received dual flight instruction in all the competency units specified in IS: 2.3.6.2 to the level required for the issue of the multi-crew pilot licence, to include the competency units required to pilot under instrument flight rules.
- (c) Skill Test.—The requirement for the skill test for the multi-crew pilot licence—aeroplane category are included in IS 2.3.6.2.
 - 2.3.7. AIRLINE TRANSPORT PILOT LICENCE
 - **2.3.7.1.**—(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 ATPL and to the category of aircraft intended to be included on the licence:
 - (1) *Air law*:
 - (i) Rules and regulations relevant to the holder of an ATPL; rules of the air; appropriate air traffic services practices and procedures.
 - (2) Aircraft general knowledge:
 - (i) General characteristics and limitations of electrical, hydraulic, pressurisation and other aircraft systems; flight control systems, including autopilot and stability augmentation;
 - (ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;
 - (iii) Operating procedures and limitations of appropriate aircraft; effects of atmospheric conditions on aircraft performance in accordance to the relevant operational information from the flight manual;

General requirements for the issue of the licence appropriate to the aeroplane, helicopter and powered-lift categories.

- (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 inflight; 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;
- (9) In addition to the above subjects, the applicant for an airline transport pilot licence applicable to the aeroplane or powered-lift category shall have met the knowledge requirements for the instrument rating at 2.3.8.

- (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 PIC of an aircraft of the appropriate category required to be operated with a co-pilot, the following procedures and manoeuvres:
 - (*i*) Pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;
 - (ii) Normal flight procedures and manoeuvres during all phases of flight;
 - (iii) Abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems and airframe:
 - (iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists: and
 - (ν) In the case of the aeroplane and powered-lift, procedures and manoeuvres for instrument flight as described in 2.3.7 of these regulations, including simulated engine failure;
 - (*vi*) In the case of aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in this paragraph as PIC in a multi engine aircraft.
- (3) Have demonstrated by passing a skill test, the ability to perform the areas of operation described in IS 2.3.7.3, IS 2.3.7.4 and IS 2.3.7.5, 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 crewmembers and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures and use of checklists.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an ATPL shall be:
- (1) To exercise all the privileges of the holder of a PPL and CPL of an aircraft within the appropriate aircraft category and class, if applicable
- (2) In the case of the aeroplane and powered-lift categories, to exercise the privileges of the holder of an IR; and
- (3) To act as PIC and co-pilot in commercial air transportation in an aircraft of the appropriate category, and class if applicable.
- (4) When the holder of an airline transport pilot licence in the aeroplane category has previously held only a multi-crew pilot licence, the privileges of the licence shall be limited to multi-crew operations unless the holder has met the requirements established in 2.3.6.1(g)(1) as appropriate. Any limitation of privileges shall be endorsed on the licence.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.1.7 of these regulations.

2.3.7.2.—(a) Experience.

(1) The applicant for ATPL(A) shall have completed not less than 1 500 hours of flight time as a pilot of aeroplanes. Credit for such experience shall be limited to a maximum of 100 hours, of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer.

Experience and Flight Instruction for the ATPL-Aeroplane Category.

The applicant shall have completed in aeroplanes not less than;

- (*iv*) 500 hours as pilot-in-command under supervision or 250 hours, either as pilot-in-command, or made up by not less than 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- (v) 200 hours of cross-country flight time, of which not less than a 100 hours shall be as PIC or as co-pilot performing, under the supervision of the PIC, the duties and functions of the PIC, provided that the method of supervision employed is acceptable to the Authority;
- (vi) 75 hours of instrument time, of which not more than 30 hours will be instrument ground time; and
 - (vii) 100 hours of night flight as PIC or as co-pilot.
- (2) When the applicant has flight time as a pilot of aircraft in other categories, Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 2.3.7.2(a)(1) can be reduced accordingly.
- (3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.7.3.
- (4) The applicant for an ATPL(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 ATPL(A) shall have received dual flight instruction required for the issue of the CPL, and the IR or for the issue of the multi-crew pilot licence.
- **2.3.7.3.**—(*a*) The skill test requirements for the airline transport pilot licence is included in IS 2.3.7.3.

ATPL SKill Test-Aeroplane Category.

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Experience and Flight Instruction for the ATPL-Helicopter Category.

2.3.7.4.—(*a*) Experience.

(1) The applicant for ATPL(H) shall have completed not less than 1 000 hours of flight time as a pilot of helicopters. Credit for such experience shall be limited to a maximum of 100 hours, of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer.

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 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- (ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as PIC under supervision;
- (iii) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time;
 - (*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 PIC towards the flight time required in (1).
- (3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.7.4.
- (4) The applicant for an ATPL(H) shall be the holder of a CPL(H) issued under this Part.
- (b) Flight Instruction.—The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.

ATPL Skill Test— Helicopter Category. **2.3.7.5.**—(*a*) The skill test requirements for the airline transport pilot licence for helicopters is included in IS 2.3.7.4.

Experience and Flight Instruction for the ATPL-Powered-Lift Category.

2.3.7.6.—(*a*) Experience.

(1) The applicant for an ATPL-Powered-lift category shall have completed not less than 1500 hours of flight time as a pilot of powered-lift. The Authority may determine whether experience completed under instruction in a flight simulator is acceptable as part of the total time of 1500 hours.

The applicant shall have completed in powered-lift not less than:

(*i*) 250 hours, either as pilot-in-command, or made up of not less than 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;

- (ii) 100 hours of cross-country flight time, of which not less than 50 hours should be as pilot-in-command or as pilot-in-command under supervision;
- (iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
 - (iv) 25 hours of night flight as pilot-in-command or as co-pilot.
- (2) The Authority may determine if pilot flight time in other aircraft categories may be credited toward meeting the 1500 hour flight time in item (1) above.
- (3) The applicant for an ATPL powered-lift shall be the holder of a CPL powered-lift issued under this Part.
- (b) Flight instruction. The applicant for an ATPL-Powered-lift category shall have received the dual flight instruction required for the issue of the CPL powered lift category and for the issue of the instrument rating.
 - **2.3.7.7.** ATPL Skill Test-Powered-Lift Category.

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- 2.3.8. Instrument Rating
- **2.3.8.1.**—(a) Age: The applicant for an IR shall be not less than 17 year of age.

General Requirements.

- (b) Medical fitness:
- (i) Applicants who hold a private pilot licence shall have established their hearing acuity on the basis of compliance with the hearing requirements for the issue of a Class 1 Medical Assessment.
- (ii) The Authority shall require the holder of a private pilot licence to meet the physical, mental, and visual requirements for the issue of a class 1 medical assessment.
- (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.
 - (*ii*) As listed in IS 2.3.7.3.

- (d) Knowledge testing.—An applicant for an IR shall:
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects.
 - (ii) Certifies that the person is prepared for the required knowledge test.
- (2) Pass the required knowledge test on the knowledge subjects listed in item (c) above.
- (e) Experience and flight instruction.—An applicant for an IR shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
- (f) Privileges.—Subject to compliance with the requirements specified in this Part, the privileges of the holder of an IR shall be to pilot an aircraft of the appropriate category under IFR. Before exercising the privileges on multi-engine aircraft the holder of the rating shall have complied with the requirements of (h)(3).

Note: Pilots may exercise joint category privileges of the instrument rating on more than one category of aircraft if they have completed the requirements in each category.

- (g) Validity.—Subject to compliance with the requirements specified in this Part, the validity period of an IR is 1 year.
 - (h) Renewal:
- (1) For the renewal of a single-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.8.3.
- (2) For the renewal of a multi-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.8.3.
- (3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.
- (i) Re-issue.—If the instrument rating has been expired the applicant shall:
- (1) Have received refresher training from an 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 2.3.8.3.

Experience and Flight Instruction for the IR.

- 2.3.8.2.—(*a*) 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 PIC of aircraft in categories acceptable to the Authority, of which not less than 10 hours shall be in the aircraft category being sought; and
 - (ii) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorised instructor.
 - (b) Flight Instruction.
 - (1) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in (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; and
 - (g) Landings from instrument approaches;
 - (iv) In flight manoeuvres and particular flight characteristics.

- (3) If the privileges of the instrument rating are to be exercised on multiengine 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.
 - (c) 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.
- (2) Have demonstrated by passing a skill test the ability to perform the areas of operation described in IS 2.3.8.3 with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:
 - (i) Recognise and manage threats and errors;
 - (ii) Operate the aircraft within its limitations;
 - (iii) Complete all manoeuvres with smoothness and accuracy;
 - (iv) Exercise good judgement and airmanship;
 - (v) Apply aeronautical knowledge;
 - (vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured;
 - (vii) Understand and apply crew co-ordination and incapacitation procedures; and
 - (viii) Communicate effectively with the other flight crewmembers.
- (3) Have demonstrated by passing a skill test the ability to operate multiengine aircraft solely by reference to instruments with one engine inoperative, or simulated inoperative, described in IS 2.3.8.3, if the privileges of the instrument rating are to be exercised on such aircraft.
- **2.3.8.3.**—(*a*) The skill test and proficiency check for the instrument rating is included in IS 2.3.8.3.
- (b) Circumstances in which an instrument rating is required: The Authority having issued a pilot licence, shall not permit the holder thereof to act either as pilot-in-command or as co-pilot of an aircraft under instrument flight rules (IFR) unless such holder has received proper authorization from such Authority. Proper authorization shall comprise an instrument rating appropriate to the aircraft category.

Instrument Rating-Skill Test and Proficiency Check.

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2.3.9. Instructors For Pilot Licensing

General Requirements. **2.3.9.1.**—(*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, ratings and authorisations are issued under this part :
 - (i) Flight instructor rating;
 - (ii) Ground Instructor licence, with basic, advanced and instrument ratings; and
 - (iii) Instructor Authorisation for Flight Simulation Training.

Flight Instructor Rating.

- **2.3.9.2.**—(*a*) *Age*: The applicant for a flight instructor rating shall be of the appropriate age for the underlying rating to be held.
- (b) Medical Fitness: The applicant for a flight instructor rating 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; and
- (ii) The aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.
- (2) Meet the requirements for fundamentals of knowledge instruction as listed in 2.2.6. of these regulations.
- (d) Experience: The applicant shall hold a rating 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 a flight instructor rating in the aeroplane category hold either a CPL or ATPL aeroplane category with instrument rating and appropriate class and/or type ratings;
- (2) For a flight instructor rating in the powered-lift category-hold either a CPL or ATPL powered-lift category with instrument rating an as applicable, class or type rating;

- (3) For a flight instructor rating in the helicopter category-hold either a CPL or ATPL helicopter category and any applicable class or type rating;
- (4) For a flight instructor rating the balloon category-hold a CPL balloon category with applicable class rating;
- (5) For a flight instructor rating in the airship category-hold a CPL airship category and any applicable ratings;
- (6) For a flight instructor rating 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 rating sought on the areas of operation in IS 2.3.9.2 in an—
 - (i) Aircraft that is representative of the category of aircraft, and if applicable class and/or type, for the aircraft rating sought; or
 - (ii) Approved flight simulation training device that is representative of the category, and if applicable class and/or type of aircraft for the licence and rating sought, and used in accordance with an approved course at an ATO certified under Part 3 of these regulations.
 - (g) Privileges: limitations and qualifications.
- (1) A flight instructor is authorised within the limitations of that person's flight instructor rating, 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 rating;

- (iv) A ground instructor licence;
- (v) An aircraft category rating;
- (vi) An aircraft class rating;
- (vii) An instrument rating;
- (viii) A proficiency check or recency of experience requirement;
- (ix) A knowledge test; and
- (x) A skill test.
- (2) The applicant, in order to carry out instruction for the multi-crew pilot licence, shall have also met all the instructor qualification requirements.
- (h) Validity: Subject to compliance with the requirements specified in this Part, the validity period of flight instructor rating is 2 years.
 - (i) Renewal: A flight instructor rating 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 rating; 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 rating.
- (3) If a flight instructor accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her flight instructor rating.
 - (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 sub-section in an approved course conducted by an ATO certified under Part 3.
- (j) Reissue: If the flight instructor 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 prescribed skill test.
- (k) Additional flight instructor rating: An applicant for an additional flight instructor rating shall meet the requirements listed in 2.3.9.2 of these regulations that apply to the flight instructor rating sought.
 - (l) Flight Instructor Records: A flight instructor shall—
- (1) Sign the logbook of each person to whom that instructor has given flight training or ground training.
- (2) Maintain a record in a logbook or separate document that contains the following—
 - (i) The name of each person whose logbook or student pilot 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.
 - (3)Retain the records required by this subjection for at least 3 years.
- (m) Flight Instructor Limitations and Qualifications: The holder of a flight instructor rating 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 rating with the applicable category and if applicable class or type rating.
- (3) For instrument flight training or for training for a type rating not limited to VFR, an appropriate instrument rating on his or her flight instructor rating and pilot license.

- (4) *Limitations on endorsements.* A flight instructor may not endorse the following :
 - (*i*) Student pilot's license or logbook for solo flight privileges, unless that flight instructor has—
 - (a) Given that student the flight training required for solo flight privileges required by this subpart;
 - (b) Determined that the student is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the student's logbook that the instructor considers necessary for the safety of the flight;
 - (c) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and
 - (d) Endorsed the student pilot's logbook for the specific make and model aircraft to be flown.
 - (ii) Student pilot's license and logbook for a solo cross country flight, unless that flight instructor has determined that—
 - (a) The student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and
 - (b) The student has the appropriate solo cross country endorsement for the make and model of aircraft to be flown.
 - (iii) Student pilot's license and logbook for solo flight in a Class B airspace area or at an airport within Class B airspace unless that flight instructor has—
 - (a) Given that student ground and flight training in that Class B airspace or at that airport; and
 - (b) Determined that the student is proficient to operate the aircraft safely.
 - (iv) Logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements 8.4.1.11(a)(3) of these regulations; or
 - (ν) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of 8.4.1.10(b) of these regulations.

- (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 rating unless that flight instructor—
 - (a) Holds a current ground or flight instructor rating 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 rating 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) Meet the requirements for fundamentals of knowledge instruction prescribed in 2.2.6 of these regulations.
 - (d) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as a flight instructor.
 - (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 of these regulations.
- (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.
- (9) The Authority having issued a pilot licence, shall not permit the holder thereof to carry out flight instruction required for the issue of a pilot licence or rating, unless such holder has received proper authorization from the Authority. Proper authorization shall comprise:
 - (i) A flight instructor rating on the holder's licence; or
 - (ii) The Authority to act as an agent of an approved organization authorized by the Authority to carry out flight instruction; or
 - (iii) A specific authorization granted by the Authority which issued the licence.

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Flight Instructor: Skill Test and Proficiency Check. **2.3.9.3.**—(*a*) The skill test and proficiency check for flight instructor ratings in the categories of aeroplane, helicopter, powered-lift, airship, balloon, and glider, as well as instrument ratings (aeroplane, helicopter, and powered-lift) and additional type ratings are included in IS 2.3.9.2.

Instructor Authorisation for Flight Simulation Training.

- **2.3.9.4.**—(a) Current and former holders of professional pilot licenses, having instructional experience can apply for an authorisation to provide flight instruction in a flight simulation training device, 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 flight simulation training is 2 years.

Ground Instructor Authorisa-

- **2.3.9.5.**—(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 2.2.6 of these regulations.
- (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 license or rating;
 - (ii) Ground training required for any flight review; and
 - (iii) A recommendation for a knowledge test required for the issuance of any license.
- (3) A person who holds an instrument ground instructor rating is 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.
 - (5) *Validity*.—The validity period for a ground instructor licence is 2 years.
- (6) Renewal.—The applicant for renewal of a ground instructor licence shall provide to the Authority satisfactory evidence of at least 3 months service as a ground instructor within the past 12 months.
- (7) *Reissue*.—If the ground instructor licence has expired, the applicant for reissuance must complete refresher training acceptable to the Authority and receive an endorsement from a licensed ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in this part for the licence and rating.

- (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.

2.3.10. Designated Pilot Examiners

General Requirements.

- **2.3.10.1.**—(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 appropriate to the category of aircraft for which designation is sought.
- (e) Skill Test: The applicant for a designated pilot examiner shall pass a skill test conducted by an inspector of the Authority who holds a current and valid licence with appropriate category, and if applicable class and type ratings, in the areas of operation contained in IS 2.3.10.1.
- (f) *Maintaining Currency*: After designation, a designated pilot examiner shall maintain currency by:

- (1) Attending initial and recurrent training provided by the Authority; and
- (2) Maintain a current and valid:
- (i) Pilot licence, and if applicable, class/type ratings appropriate to the designation;
- (ii) Flight instructor rating 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 3 years.
 - (i) Renewal:
 - (1) Renewal will be at the discretion of the Authority.
- (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS 2.3.10.1.
- (j) Additional Designations: When the Authority deems it necessary for a designated pilot examiner to receive additional designations, the designated pilot examiner:
 - (1) Shall meet all the requirements in this Part for the designation;
- (2) Need not take an additional knowledge test provided the designation is within the same aircraft category.
- **2.3.10.2.**—(*a*) The requirements for the designation of a pilot examiner are included in IS 2.3.10.1.

Skill Test for Designated Pilot Examiners.

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

Experience Requirements for Private Pilot Examiner

(PPE).

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

(2) A valid flight instructor rating 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.
- (b) Experience: PPE-Helicopter Category. The applicant shall have at least:
 - (1) A CPL(H), appropriate class rating(s).
- (2) A valid flight instructor rating with a helicopter category and appropriate class rating(s).
 - (3) 1,000 hours as PIC which includes at least:
 - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year; and
 - (ii) 250 hours in helicopters as appropriate for the designation sought.
- (4) 200 hours as a flight instructor in helicopters, as appropriate for the designation sought.
- (c) Experience: PPE-Powered-Lift Category. The applicant shall have at least:
 - (1) A CPL powered-lift category with an instrument powered-lift rating.
 - (2) A valid flight instructor rating with a powered-lift category.
 - (3) 2.000 hours as PIC which includes at least:
 - (i) 1,000 hours in powered-lift, of which 300 hours were accrued within the past year; and
 - (ii) 100 hours in powered-lift at night.
 - (4) 500 hours as a flight instructor in powered-lift.
- (d) Experience: PPE-Airship Category. The applicant shall have at least:
 - (1) A CPL airship category and any applicable class rating(s).
- (2) A valid flight instructor rating with an airship category and any applicable class rating(s).

- (3) 1,000 hours as PIC which includes at least:
- (i) 500 hours in airships, of which 200 hours were accrued within the past year; and
 - (ii) 50 hours in airships at night.
- (4) 100 hours as a flight instructor in airships.
- (e) Experience: PPE—Balloon Category. The applicant shall have at least:
 - (1) A CPL balloon category and applicable class rating(s).
- (2) A valid flight instructor rating with a balloon category and appropriate class rating(s).
 - (3) 200 hours as PIC which includes at least:
 - (i) 100 hours in balloons; and
 - (ii) 20 hours in balloons in the class for which the designation is sought within the past year, including 10 flights in balloons of at least 30 minutes duration each.
- (4) 50 hours as a flight instructor in balloons in the class for which the designation is sought, of which 10 hours were accrued within the past year.
- (f) Experience: PPE—Glider Category. The applicant shall have at least:
 - (1) A CPL glider category rating.
 - (2) A valid flight instructor rating with a glider category rating.
 - (3) 500 hours as PIC which includes at least:
 - (i) 200 hours in gliders; and
 - (ii) 10 hours in gliders within the past year that includes at least 10 flights in gliders.
 - (4) 100 hours as a flight instructor in gliders.
- **2.3.10.4.**—(a) Experience: CIRE—Aeroplane Category. The examiner applicant shall have at least:

(1) A commercial 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.

Requirements for Commercial and Instrument Rating Pilot Examiner (CIRE).

Experience

- (3) 2,000 hours as PIC, which shall include at least:
- (i) 1,000 hours in aeroplanes, of which 300 hours were accrued within the past year;
- (ii) 500 hours in the class of aeroplane for which the designation is sought;
 - (iii) 100 hours at night in aeroplanes;
- (iv) 100 hours 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;
- (4) 500 hours as a flight instructor in aeroplanes, which shall include at least:
 - (i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought; and
 - (ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes.
- (b) Experience: CIRE—Helicopter Category. The examiner applicant shall have at least:
- (1) A commercial pilot 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 shall include at 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.
 - (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.
- (ν) 250 hours as a flight instructor in helicopters, which include at least—
 - (A) 100 hours of flight instruction given in the helicopters; and
 - (B) 50 hours of instrument flight instruction in helicopters.
- (c) *Experience*: CIRE—Powered-Lift Category. The examiner applicant shall have at least:
 - (1) A commercial pilot 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 shall include at least:
 - (i) 1,000 hours in powered-lifts, of which 300 hours were accrued within the past year;
 - (ii) 100 hours at night in powered-lifts;
 - (iii) 100 hours 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.
 - (d) 500 hours as a flight instructor in powered-lifts, which shall include at least:
- (1) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts.

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Experience Requirements for Commercial Pilot Examiners (CE).

- **2.3.10.5.**—(a) Experience: CE-Helicopter Category. The examiner applicant shall have at least:
 - (1) A commercial pilot licence with a helicopter category rating.
 - (2) A valid flight instructor certificate with a helicopter category rating.
 - (3) 2,000 hours as PIC, which shall include at least:
 - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year;
 - (ii) For authority to conduct skill tests in large helicopters—
 - (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 shall include at least:
 - (i) 50 hours of instrument flight instruction in helicopters.
 - (b) Experience: CE-Airship Category. The applicant shall have at least:
 - (1) A CPL with airship category rating and any applicable class rating(s);
 - (2) A valid flight instructor rating with an airship category and any applicable class rating(s).
 - (3) 1,000 hours as PIC which includes at least:
 - (i) 500 hours in airships, of which 200 hours were accrued within the past year; and
 - (ii) 50 hours in airships at night.
 - (4) 100 hours as a flight instructor in airships.
 - (c) Experience : CE-Balloon Category. The applicant shall have at least :
 - (1) A CPL balloon category and applicable class rating(s).
 - (2) A valid flight instructor rating with a balloon category and applicable class rating(s).
 - (3) 200 hours as PIC which shall include 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.
- (5) 50 hours as a flight instructor in balloons in the class for which the designation is sought, of which 10 hours were accrued within the past year.
 - (d) Experience: CE-Glider Category. The applicant shall have at least:
 - (1) A CPL with glider category rating.
 - (2) A valid flight instructor rating with a glider category rating.
 - (3) 500 hours as PIC which includes at least:
 - (i) 250 hours in gliders; and
 - (ii) 20 hours in gliders within the past year that includes at least 50 flights in gliders.
- (4) 200 hours as a flight instructor, including 100 hours of flight instruction given in gliders.
- **2.3.10.6.**—(a) *Experience*: ATPE—Aeroplane Category. The examiner applicant shall have at least:
- (1) An ATPL with an aeroplane category rating, appropriate class rating(s) and an Instrument-Aeroplane rating.
- (2) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.
 - (3) 2,000 hours as PIC, which shall include at least:
 - (i) 1,500 hours in aeroplanes, of which 300 hours were accrued within the past year.
 - (ii) 500 hours in the class of aeroplane for which the designation is sought.
 - (iii) 100 hours at night in aeroplanes.
 - (iv) 200 hours in complex aeroplanes.
 - (v) 100 hours of instrument flight time in actual or simulated conditions.
 - (vi) For authority to conduct skill tests in large or turbine-powered aeroplanes:
 - (a) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and

Experience Requirements for Airline Transport Pilot (ATPL) Examiners (ATPE).

- (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 shall include at least:
 - (i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought;
 - (ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes; and
 - (*iii*) 150 hours flight instruction given for either a CPL(A) or ATPL(A) or an IR(A).
- (b) Experience: ATPE-Helicopter Category. The examiner applicant shall have at least:
- (1) An ATPL with a helicopter category rating, appropriate class rating(s) and an Instrument-Helicopter rating.
- (2) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.
 - (3) 2,000 hours as PIC, which shall include at 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.
- (c) Experience : ATPE-Powered-Lift Category. The examiner applicant shall have at least :
- (1) An ATPL with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.
- (2) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.

- (3) 2,000 hours as PIC, which shall include at least:
- (i) 1,500 hours in powered-lifts, of which 300 hours were accrued within the past year;
 - (ii) 100 hours at night in powered-lifts;
- (iii) 100 hours 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 shall include at least :
 - (i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts; and
 - (*ii*) 150 hours flight instruction given for either a CPL-powered-lift, ATPL -powered-lift or IR-powered-lift.
 - **2.3.10.7.**—(a) The examiner applicant shall have at least:
- (1) The requirements for a commercial examiner or a commercial instrument rating examiner designation, as appropriate for the category and class of aircraft pertinent to the FIE designation sought; and.
- Requirements for Flight Instructor Examiner (FIE).

Experience

- (2) Have held a Commercial Examiner or Commercial and Instrument Rating Examiner designation for at least a year prior to designation as a FIE.
- **2.4.** Flight Engineer Licence, Ratings, Instructors and Designated Flight Engineer Examiners
- **2.4.1.**—(*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.

Applicability.

2.4.2.—(*a*) A person shall not act as a flight engineer of an aircraft registered in Nigeria 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.

General Rule Concerning Flight Engineer Licences and Ratings.

- (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 Authority 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) (1) 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.
- (2) An applicant for a flight engineer licence shall demonstrate such requirements for knowledge and skill as are specified for the licence, in a manner determined by the Authority.
- (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.

Authority to Act as a Flight Crew member.

- **2.4.3.**—(a) A person shall not act as a flight crewmember of an aircraft registered in Nigeria 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, Class Rating, and Experience Requirements

Flight Engineer Licence.

- **2.4.4.1.**—(*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 2 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 power plants, 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 power plants; 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) Pressurisation and air-conditioning systems; oxygen systems;
 - (vi) Hydraulic and pneumatic systems;
- (vii) Basic electrical theory; electric systems (AC and DC); aircraft wiring systems; bonding and screening;
- (viii) Principles of operation of instruments, compasses, autopilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics;
 - (ix) Limitations of appropriate aircraft;
 - (x) Fire protection; detection, suppression and extinguishing systems;
- (xi) Use and serviceability checks of equipment and systems of appropriate aircraft.
- (3) Flight performance and planning:
- (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations; and
- (ii) Use and practical application of performance data including procedures for cruise control.
- (4) Human performance:
- (i) Human performance and CRM relevant to the flight engineer, including principles of threat and error management.
- (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; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test.
 - (e) Experience.
- (1) The applicant for a flight engineer licence and class rating shall have completed under the supervision of a person accepted by the Authority for that purpose, not less than 100 hours of flight time in the performance of the duties of a flight engineer, of which 50 hours may have been completed in a flight simulation training device approved by the Authority. This experience shall have been obtained:
 - (i) On an aeroplane for which a flight engineer is required; and
 - (ii) On an aeroplane that has at least three engines that are rated at least 800 horsepower each or the equivalent in turbine engine powered aircraft.
- (2) The holder of a CPL/IR(A) or ATPL(A) may be credited with 30 hours towards the 100 hours of flight time.
- (3) The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the Authority for that purpose, in at least the following areas:

- (i) Normal procedures:
 - (a) Pre-flight inspections.
 - (b) Fuelling procedures, fuel management.
 - (c) Inspection of maintenance documents.
 - (d) Normal flight deck procedures during all phases of flight.
- (e) Crew coordination and procedures in case of crew incapacitation.
 - (f) Defect reporting.
- (ii) Abnormal and alternate (standby) procedures:
 - (a) Recognition of abnormal functioning of aircraft systems.
 - (b) Use of abnormal and alternate (standby) procedures.
 - (iii) Emergency procedures:
 - (a) Recognition of emergency conditions.
 - (b) Use of appropriate emergency procedures.
- (f) Skill.—The applicant for a flight engineer 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 crewmembers;
 - (vi) Recognize and manage threats and errors.
 - (3) Requirements for the skill test are given at IS 2.4.4.4.
- (4) The use of a flight simulation training device for training or testing any of the required manoeuvres shall be appropriate to the task and approved by the Authority.

Flight Engineer

Class

Ratings.

- (g) Privileges.
- (1) 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.
- (2) The types of aircraft on which the holder of a flight engineer licence is authorized to exercise the privileges of that licence, shall be either entered on the licence or recorded elsewhere in a manner acceptable to the Authority.
- (h) Validity.—Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer licence and class rating is 5 years.
- (i) Renewal.—The Flight Engineer Licence may be renewed by presenting to the Authority evidence of successfully passing a proficiency check on the areas of operation listed in IS: 2.4.4.4.
- (*j*) *Reissue*.—If the Flight Engineer Licence has expired, the applicant shall have received refresher training acceptable to the Authority.
- **2.4.4.2.**—(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.

Recent Experience Requirements.

- **2.4.4.3.**—(*a*) No person holding a flight engineer licence and class rating shall exercise the privileges of the flight engineer licence unless he/she has completed within the past 6 calendar months—
 - (1) At least 50 hours of flight time as a flight engineer, or
 - (2) Completed a proficiency check.

2.4.4.4.—(*a*) The requirements for the skill test and proficiency check for the flight engineer licence are included in IS 2.4.4.4.

Flight
Engineer:
Skill Test
and
Proficiency
Check.

2.4.5. Instructors for Flight Engineer Licences

- **2.4.5.1.**—(a) Age: An applicant for a flight engineer instructor rating and class rating shall be at least 18 years of age.
- (b) Medical: An applicant for a flight engineer instructor rating shall hold a Class 2 medical certificate.
 - (c) Knowledge:
- (1) An applicant for a Flight engineer instructor rating shall have met the instructor requirements in 2.2.6 of this part; and
 - (2) Any additional requirements as may be specified by the Authority.
- (d) Experience: The applicant for a Flight engineer instructor rating and class rating shall hold at least a current and valid flight engineer licence and class rating for which the instructor licence is sought and have a minimum of 1,500 hours flight time as a flight engineer.
- (e) Flight Instruction. : Received flight instruction from an authorised instructor in the areas of :
- (1) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and
- (2) Have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.
- (f) Privileges: The privileges of a Flight engineer instructor rating 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.
- (g) Validity: Subject to compliance with the requirements specified in this Part, the validity period of the Flight engineer instructor rating is 2 years.
- (h) Renewal: A Flight engineer instructor rating 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—

Requirements for Flight Engineer Instructor Rating and Class Rating.

- (1) Received refresher training acceptable to the Authority; or
- (2) Conducted at least one of the following parts of an approved course for a flight engineer licence or class rating :
 - (i) One simulator session of at least 3 hours; or
 - (ii) One flight exercise of at least 1 hour including at least 2 take-offs and landings.
- (i) Reissue: If the Flight engineer instructor rating has expired, the applicant shall:
 - (1) Have received refresher training acceptable to the Authority; and
 - (2) Pass a skill test on the areas of operation listed in IS 2.4.4.2.

Instructor Authorisation for Flight Simulation Training.

- **2.4.5.2.**—(*a*) Current or 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

Requirements.

- **2.4.6.1.**—(a) Age: An applicant for a designated flight engineer examiner shall be at least 21 years of age.
- (b) Medical: An applicant for a designated flight engineer examiner shall hold a Class 2 medical certificate.
- (c) Eligibility: An applicant for a designated flight engineer examiner shall:
 - (1) Hold at least the flight engineer licence and class rating for which examining authority is sought.
 - (2) Have a minimum of 1,500 hours flight time as a flight engineer.
 - (3) Have held a Flight engineer instructor rating or company flight engineer check airman authorisation for preferably at least 1 year.

- (4) Have a reputation for integrity and dependability in the industry and the community.
- (5) Have a good record as a flight engineer in regard to accidents, incidents, and violations.
- (6) Have flight engineer licence/class ratings and Flight engineer instructor rating 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 2.4.6.2 conducted by an inspector of the Authority 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 3 years.
 - (i) Renewal:
 - (1) Renewal will be at the discretion of the Authority.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS 2.4.6.2.
- (*j*) Additional designations: When the Authority deems it necessary for a designated flight engineer examiner to receive additional class rating designations, the designated flight engineer examiner shall meet all the requirements in this Part for the designation.

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Skill Test For Designated Flight Engineer Examiners.

- **2.4.6.2.**—(a) The requirements for the skill test for designated flight engineer examiners is included in IS 2.4.6.2.
- **2.5.** Cabin Crew and Air Traffic Safety Electronics Personnel Licences, Ratings and Instructors' Authorisations
 - **2.5.1.** Cabin Crew Licence, Ratings and Instructors' Authorisations.
 - **2.5.1.1.** General.
 - **2.5.1.2.** Applicability.
 - (a) This section prescribes the requirements for the issuing, renewal and re-issuing of cabin crew license, ratings, and instructors' authorisation.
 - **2.5.1.3.**—Eligibility Requirements : General.
- (a) An applicant for an Cabin crew 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.
- (3) Comply with the knowledge, experience, and competency requirements prescribed for the license and rating sought and;
- (4) Have completed an initial training course from either an AOC holder or an ATO within 12 months preceding the date of application.
 - (b) Medical Fitness—The applicant for a cabin crew licence shall hold a Class 2 medical certificate issued under this Part.
 - (c) Knowledge—The applicant for a cabin crew licence shall receive and pass ground training from an authorized instructor on the following subjects appropriate to the privileges granted to the holder of a cabin crew licence and appropriate aircraft type rating(s):
 - (1) Air Law:
 - (i) Rules and Regulations relevant to the holder of a cabin crew licence.
 - (2) Theory of flight and aircraft operations:
 - (i) theory of flight;
 - (ii) major aircraft components;
 - (iii) critical surfaces (contamination);
 - (iv) pressurization systems;
 - (v) weight and balance;
 - (vi) meteorology/trubulence;

- (vii) physiology of flight-
 - (a) Oxygen system and use
 - (b) Effects of altitude
 - (c) Cabin poisoning
- (3) Aircraft equipment and furnishings.
- (i) Cabin crew member stations.
- (ii) Cabin crew member panels.
- (iii) Passenger seats.
- (iv) Passenger service units and convenience panels.
- (v) Passenger information signs.
- (vi) Aircraft markings.
- (vii) Aircraft placards.
- (viii) Bassinets and bayonet tables.
- (4) Aircraft systems.
- (i) Air conditioning and pressurisation system.
- (ii) Aircraft communication systems (call, interphone and passenger address).
 - (iii) Lighting and electrical systems.
 - (iv) Oxygen systems (flight crew, observer and passenger).
 - (v) Water system.
 - (vi) Entertainment and convenience systems.
 - (5) Aircraft exits.
 - (i) General information.
 - (ii) Exits with slides or slide rafts (preflight and normal operation).
 - (iii) Exits without slides (preflight and normal operations).
 - (iv) Window exits (preflight).
 - (6) Crew member communication and co-ordination.
 - (i) Authority of PIC.
 - (ii) Routine communication signals and procedures.
 - (iii) Crew member briefing.
 - (7) Routine crew member duties and procedures.
 - (i) Crew member general responsibilities.
 - (ii) Reporting duties and procedures for specific aircraft.
 - (iii) Pre-departure duties and procedures prior to passenger boarding.

- (iv) Passenger boarding duties and procedures.
- (v) Prior to movement on the surface duties and procedures.
- (vi) Prior to takeoff duties and procedures applicable to specific aircraft.
 - (vii) In flight duties and procedures.
 - (viii) Prior to landing duties and procedures.
 - (ix) Movement on the surface and arrival duties and procedures.
 - (x) After arrival duties and procedures.
 - (xi) Intermediate stops.
- (8) Passenger handling responsibilities—
 - (i) Crew member general responsibilities.
 - (ii) Infants, children, and unaccompanied minors.
 - (iii) Passengers needing special assistance.
 - (iv) Passengers needing special accommodation.
 - (v) Carry-on stowage requirements.
 - (vi) Passenger seating requirements.
 - (vii) No smoking requirements.
- (9) Cabin Crew Emergency Procedures training syllabi—
 - (i) Emergency equipment.
 - (ii) Emergency communication and notification systems.
 - (iii) Aircraft exits.
 - (iv) Exits with slides or sliderafts (emergency operation).
 - (v) Slides and sliderafts in a ditching.
 - (vi) Exits without slides (emergency operation).
 - (vii) Window exits (emergency operation).
 - (viii) Exits with tailcones (emergency operation).
 - (ix) Cockpit exits (emergency operation).
 - (x) Ground evacuation and ditching equipment.
 - (xi) First aid equipment.
- (*xii*) Oxygen systems (oxygen bottles, chemical oxygen generators, protective breathing equipment (PBE)).
 - (xiii) Firefighting equipment.
 - (xiv) Emergency lighting systems.

- (10) Cabin Crew emergency procedure duties—
- (i) General types of emergencies specific to aircraft, including crew coordination and communication.
 - (ii) Emergency communication signals and procedures.
 - (iii) Rapid decompression.
- (iv) Insidious decompression and cracked window and pressure seal leaks.
 - (v) Fires.
 - (vi) Ditching.
 - (vii) Ground evacuation.
 - (viii) Unwarranted evacuation (i.e. passenger initiated).
 - (ix) Illness or injury.
 - (x) Abnormal situations involving passengers or crew members.
 - (xi) Hijacking and acts of unlawful interference.
 - (xii) Bomb threat.
 - (xiii) Turbulence.
- (*xiv*) Other unusual situations including an awareness of other crew members' assignments and functions as they pertain to the cabin crew member's own duties.
 - (xv) Previous aircraft accidents and incidents.
 - (11) Aircraft specific emergency drills:
 - (i) Emergency exit drill;
 - (ii) Fire and smoke drill;
 - (iii) Emergency oxygen system drill;
 - (iv) Flotation device drill;
 - (v) Ditching drill, if applicable;
 - (vi) Life raft removal and inflation drill, if applicable;
 - (vii) Slide raft pack transfer drill, if applicable;
- (viii) Slide or slide raft deployment, inflation, and detachment drill, if applicable;
 - (ix) Emergency evacuation slide drill, if applicable.
 - (12) Carriage of Dangerous Goods :
 - (i) General philosophy;
 - (ii) Limitations on dangerous goods in Air Transportation;

- (iii) Prohibited goods;
- (iv) Package marking and Labeling;
- (v) Exceptions;
- (vi) Emergency procedures;
- (vii) Dangerous goods in passengers baggage.
- (13) Human Factors:
- (i) Fundamental human factor concepts;
- (ii) Crew resource management (CRM);
- (14) Hygiene, Aviation medicine and first Aid—
- (i) Terminology;
- (ii) Personal Hygiene;
- (iii) Tropical hygiene;
- (iv) Transmissible diseases;
- (v) Quarantinable Diseases;
- (vi) Epidemic diseases;
- (vii) Food poisoning;
- (viii) First-aid kits (contents and use);
- (ix) Medical kits (contents and use);
- (x) Universal precaution kits (contents and use);
- (xi) Automated external defibrillators.
- (15) *Knowledge Testing*.—The applicant for the cabin crew licence shall:
 - (i) Have received an endorsement for the knowledge test from authorised instructor who:
 - (a) Conducted the training on the knowledge subjects; and
 - (b) Certifies that the person is prepared for the required knowledge test.
 - (ii) Pass the required knowledge test on the knowledge subjects listed in this subpart.
 - (16) Skill.—The applicant for a cabin crew licence shall:
 - (i) Pass a practical test with respect to any one type of aircraft used in commercial air transport to demonstrate the applicant's ability as specified by the Authority.

- (17) Experience—The applicant for a cabin crew licence shall present to the Authority documentary evidence that he/she has the experience or training as specified under part 2 of this regulations.
- (18) *Privileges*—Subject to compliance with the requirements specified in this part, the privileges of the holder of a cabin crew licence shall be;
- (i) To exercise all privileges of the holder of a cabin crew licence in an aircraft within the appropriate aircraft rating(s);
- (ii) To act as a cabin crew in an aircraft within the appropriate aircraft type(s) engaged in operations other than commercial air transportation.
- (19) *Validity*—The validity period of the licence is 5 years. A licence shall become invalid when a cabin crew has ceased to exercise the privileges of the licence for a period of 1 year. A licence shall remain invalid until the cabin crew's ability to exercise the privileges of the licence has been reestablished.
- (20) Renewal—The cabin crew licence shall be renewed by presenting to the Authority evidence of satisfactory passing a competency check on the areas of operation contained in part 8 of this regulation; and record of satisfactory completion of recurrent ground curricula training conducted by an AOC holder or an ATO on aircraft type rating(s) and emergency drills approved by the Authority relevant to the type(s) and/or variant(s) of aircraft and operations to which he/she is assigned within the preceding 12 calendar months.
- (21) *Re-issue*—If the cabin crew licence has expired, the applicant shall have received refresher training acceptable to the Authority.
 - 2.5.2. Instructors for Cabin Crew
- **2.5.2.1.**—(a) Age: An applicant for Cabin Crew instructor rating/authorisation shall be at least 18 years of age.
 - (b) Knowledge.
- (1) An applicant for a Cabin Crew instructor rating/authorisation shall have met the instructor requirements in 2.2.6 of this part; and
 - (2) Any additional requirements as may be specified by the Authority.
 - (c) Experience—The applicant for a Cabin Crew instructor rating/authorisation shall hold at least a current and valid Cabin Crew licence and have a minimum of three years experience as a Cabin Crew.
 - (d) Privileges.—The privileges of a Cabin Crew instructor rating/authorisation are to give instruction to Cabin Crew licence applicants and to endorse those applicants for a knowledge or skill test as applicable.

Requirements for Cabin Crew Instructor Rating/ Authorisation.

- (e) Validity.—Subject to compliance with the requirements specified in this Part, the validity period of the Cabin Crew instructor rating/authorisation is 2 years.
- (f) Renewal.—A Cabin Crew instructor rating/authorisation that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date—
- (1) Conducted at least six exercises in an approved course for a Cabin Crew licence; or
 - (2) Received refresher training acceptable to the Authority.
 - (g) Reissue. If the Cabin Crew instructor rating/authorization has expired, the applicant shall have received refresher training acceptable to the Authority.
 - 2.5.3. AIR TRAFFIC SAFETY ELECTRONICS PERSONNEL LICENCE AND RATINGS
 - **2.5.3.** General.

Applicability.

2.5.3.1.—(*a*) This section prescribes the requirements for the issuing, renewal and re-issuing of Air Traffic Safety Electronics Personnel license and ratings.

Applicability.

- **2.5.3.2.**—(*a*) This Subpart prescribes the requirements for issuance of an ATSEP licence and associated ratings.
 - **2.5.3.3.** *Eligibility Requirements* : General.
 - (a) An applicant for an ATSEP licence 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, and by reading and explaining appropriate maintenance publications and by writing defect and repair statements.
- (3) Comply with the knowledge, experience, and competency requirements prescribed for the license and rating sought.
- (4) Pass all of the prescribed tests for the license and rating sought, within a period of 24 months.
- (5) Present an appropriate graduation certificate of an approved course from an ATO.

2.5.3.4.—(a) The following ratings are issued under this subpart :

Ratings.

- (1) Communications.
- (2) Surveillance.
- (3) Navaids.
- (4) Airfield Lighting/visual landing systems.
- (5) Any other rating that may be considered by the Authority.
- **2.5.3.5.**—(a) The applicant for an Air Traffic Safety Electronics Personnel licence shall demonstrate by passing a knowledge test covering at least the following areas:

Knowledge Requirements for the Atsep Licence.

- (1) *Air Law*: Rules and regulations relevant to an Air Traffic Safety Electronics Personnel licence holder including.
- (2) Knowledge areas in communication, Navigation, Surveillance Airfield lighting/visual landing systems.
 - (3) Applicant must pass an ATSEP pre-license course from an ATO.
- (b) The basic knowledge examinations shall be conducted at an approved training organization under part 3 of these Regulations.
- (c) Full or partial credit against the basic knowledge requirements and associated examinations shall be given for any other technical qualifications considered by the Authority to be equivalent to knowledge standard of this part.
- **2.5.3.6.**—(*a*) Applicant for the communications rating shall pass the knowledge tests covering all the subjects in the approved communication curriculum in an ATO as listed in IS: 2.5.3.6 (*a*).

Knowledge Requirements for the Atsep Ratings

- (b) Applicant for the Navaids rating shall pass the knowledge tests covering all the subjects in the approved Navaids curriculum in an ATO as listed in IS: 2.5.3.6 (b)
- (c) Applicant for the Surveillance rating shall pass the knowledge test s covering all the subjects in the approved surveillance curriculum in an ATO as listed in IS: 2.5.3.6 (c)
- (d) Applicant for the airfield lighting/visual landing systems rating shall pass the knowledge test s covering all the subjects in the approved Airfield lighting/visual landing systems curriculum in an ATO as listed in IS: 2.5.3.6 (d).

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Experience Requirements.

- **2.5.3.7.**—(a) An applicant for an ATSEP license and associated ratings may qualify by either practical experience or through completion of approved training in an ATO.
- (b) Practical experience.—Each applicant for an ATSEP 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 CNS safety electronics engineering facilities or its components—
 - (1) Communications rating-12 months.
 - (2) Surveillance rating-12 months.
 - (3) Radio Navigational Aids rating-12 months.
 - (4) Airfield lighting/visual landing systems rating-12 months.

Skill Requirements.

- **2.5.3.8.**—(*a*) Each applicant for an ATSEP license or rating must pass a skill test on the license or rating sought;
- (b) For rating(s) in different categories, the applicant shall undergo a 5 weeks OJT field job tasks experience under the supervision of an ATSEP licence holder:
- (c) The applicant shall log evidence of satisfactory completion of all job tasks performed during the OJT as approved by the Authority for the rating(s) sought; and
- (*d*) The skill test shall cover the applicant's basic skill in performing practical projects on the subjects covered by the written test for the licence or rating(s) sought. The applicant will be provided with appropriate facilities, tools and materials.

Privileges and Limitations.

- **2.5.3.9.**—(a) Except as specified in paragraphs (e) and (f) of this subsection, a licensed ATSEP may perform or supervise the maintenance, preventive maintenance, or modification of, or after inspection, approve for return to service, any CNS facility, appliance, component or part thereof, for which he or she is rated, provided the licensed ATSEP 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 an appropriately rated and licensed ATSEP; and has had previous experience in the specific operation concerned or received training acceptable to the Authority on the task to be performed.
- **2.5.3.10.**—(a) *Validity*—The duration of the ATSEP licence is five years. The validity of an ATSEP rating is 12 months from the date of issue.

Duration of Atsep Licence/ Rating.

- (b) Renewal—An ATSEP licence or rating(s) becomes invalid if the licence holder has ceased to exercise the privileges of the licence or rating for a period of six months and shall remain invalid until the holder's ability to exercise the privileges of the licence or rating(s) has been re-established as specified by the Authority.
- (c) Reissue.—If the ATSEP licence has expired, the applicant shall have received refresher training acceptable to the Authority.
 - **2.6.** Aircraft Maintenance Licensing, Instructors and Designated Examiners
 - **2.6.1.** General.
- **2.6.1.1.**—(a) Subpart 2.6 prescribes the requirements for issuing the Applicability. following licenses and associated ratings and/or authorisations for :
 - (1) Aircraft Maintenance Engineers.
 - (2) Inspection Authorisations
 - (3) Aircraft Repair Specialist.
 - (4) Aircraft Maintenance Engineer Instructors.
 - (5) Designated Aircraft Maintenance Engineer Examiners.
 - (b) An applicant shall, before being issued with an Aircraft Maintenance Engineers licence or rating, meet such requirements in respect of age, knowledge, experience and where appropriate, medical fitness and skill, as are specified for that licence or rating.
 - (c) An applicant for Aircraft Maintenance Engineers licence or rating, shall demonstrate, in a manner determined by the Authority, such requirements in respect of knowledge and skill as are specified for that licence or rating.

- **2.6.2.** AIRCRAFT MAINTENANCE ENGINEER (AME)
- **2.6.2.1.**—(a) This Subpart prescribes the requirements for issuance of an AME license and associated ratings.
 - **2.6.2.2.** *Eligibility Requirements* : General.
 - (a) An applicant for an AME licence 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.
- (4) Pass all of the prescribed tests for the license and rating sought, within a period of 24 months.
- (b) A licensed AME who applies for an additional rating must meet the requirements of 2.6.2.6 of these regulations and, within a period of 24 months, pass the tests prescribed by 2.6.2.5 and 2.6.2.7 of these regulations for the additional rating sought.

Ratings.

- **2.6.2.3.**—(*a*) The following ratings are issued under this subpart (IS : 2.6.2.3 details the ratings and limitations issued by the Authority):
 - (1) Airframe.
 - (2) Powerplant.
 - (3) Avionics.
 - (4) Other ratings as may be determined by the Authority.
 - (b) The following AME type ratings are issued under the Subpart :
 - (1) Airframe type ratings for all aircraft.
 - (2) Power plant type ratings for power plants on all aircraft.
 - (3) Avionics type ratings for all aircraft.
 - (4) Other specialized ratings as may be determined by the Authority.

2.6.2.4.—(a) The applicant for an aircraft maintenance Engineer licence shall have passed a general knowledge test and demonstrated a level of knowledge relevant to the privileges to be granted and appropriate to the responsibilities of an aircraft maintenance Engineer licence holder, in at least the following subjects:

Knowledge Requirements for the AME Licence.

- (1) Air law and airworthiness requirements.
- (i) Rules and regulations relevant to an Aircraft Maintenance Engineer 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;
- (ii) Units of measurement; ii) 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.
 - (ii) Fastening techniques;
 - (iii) Engines and their associated systems;
 - (iv) Mechanical, fluid, electrical and electronic power sources;
 - (v) Aircraft instrument and display systems;
 - (vi) Aircraft control systems;
 - (vii) 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 Standards of airworthiness; and
 - (5) Human performance.
- (i) Human performance, including principles of threat and error management, relevant to aircraft maintenance.

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Knowledge Requirements for the Ratings.

- **2.6.2.5.**—(a) The applicant for an airframe rating shall pass a knowledge test covering at least the following areas:
 - (1) Wood structures.
 - (2) Aircraft covering.
 - (3) Aircraft finishes.
 - (4) Sheet metal and non-metallic structures.
 - (5) Welding.
 - (6) Assembly and rigging.
 - (7) Airframe inspection.
 - (8) Fuel systems.
 - (9) Aircraft landing gear systems.
 - (10) Hydraulic and pneumatic power systems.
 - (11) Cabin atmosphere control systems.
 - (12) Aircraft instrument systems.
 - (13) Communication and navigation systems.
 - (14) Aircraft fuel systems.
 - (15) Aircraft electrical systems.
 - (16) Position and warning systems.
 - (17) Ice and rain control systems.
 - (18) Fire protection systems.
 - (b) The applicant for a power plant rating shall pass a knowledge test covering at least the following areas :
 - (1) Reciprocating systems.
 - (2) Turbine engines.
 - (3) Engine inspection.
 - (4) Engine instrument systems.
 - (5) Engine fire protection systems.
 - (6) Engine electrical systems.
 - (7) Lubrication systems.

- (8) Ignition and starting systems.
- (9) Fuel metering.
- (10) Engine fuel systems.
- (11) Induction and engine airflow systems.
- (12) Engine cooling systems.
- (13) Engine exhaust and reverser systems.
- (14) Propellers.
- (15) Auxiliary power units.
- (c) The applicant for an avionics rating shall pass a knowledge test covering at least the following areas:
 - (1) Aircraft electrical systems;
 - (2) Aircraft instrument systems;
 - (3) Automatic flight control systems;
 - (4) Aircraft radio and radio navigation systems,
 - (5) Aircraft navigation systems; and
 - (6) Aircraft systems/components-avionics.
- (d) The applicant shall pass each section of the test before applying for the skill tests prescribed by IS 2.6.2.7.
- (e) The applicant for endorsement of an AME type rating shall have successfully completed an approved relevant type training in an ATO and provide documentary evidence, acceptable to the Authority of practical experience in representative tasks as contained in IS 2.6.2.5 (e).
- **2.6.2.6.**—(a) An applicant for an AME licence and associated ratings shall qualify by either practical experience or through completion of approved training in an ATO.

Experience Requirements.

- (b) Practical Experience.—Each applicant for an AME licence and rating(s) shall provide documentary evidence, acceptable to the Authority, of the following experience in the inspection, servicing and maintenance of aircraft or its components—
 - (1) Airframe rating-30 months.
 - (2) Powerplant rating-30 months.
 - (3) Airframe and Powerplant ratings-48 months.

- (4) Avionics rating-36 months.
- (5) Airframe, Powerplant and Avionics ratings-60 months.
- (c) Approved Training.—Each applicant for an AME licence relying on completion of training in an Approved Training Organisation shall provide documentary evidence, acceptable to the Authority, of the following practical experience in the inspection, servicing and maintenance of aircraft or its components:
 - (1) Airframe rating-12 months.
 - (2) Powerplant rating-12 months.
 - (3) Airframe and Powerplant ratings-24 months.
 - (4) Avionics rating-12 months.
- (5) Airframe, Powerplant and Avionics ratings-30 months practical work experience.
- (*d*) The training requirements for a full aircraft maintenance engineer license, including requirements applicable to airframe and powerplant ratings, shall be complied with prior to obtaining the avionics rating.

Skill Requirements. **2.6.2.7.**—(a) Each applicant for an AME license or rating must pass a skill test on the license or rating that he/she seeks. The tests cover the applicant's basic skill in performing practical projects on the subjects covered by the knowledge test for the license or rating, and shall contain at least the subjects in the Implementing Standard 2.6.2.7 appropriate to the license or rating sought.

Privileges and Limitations.

- **2.6.2.8.**—(a) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AME 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 AME 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 AME or a licensed aviation repair specialist 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 AME 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 AME 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 AME with an Avionics rating may inspect, repair, maintain, function test and return to service aircraft avionics systems and components.
- (e) An AME 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 AME 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 AME 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) of these regulations) 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.

(g) Details of the certification privileges shall be endorsed on or attached to the licence, either directly or by reference to another document issued by the Authority.

2.6.2.9. Duration of AME Licence.

- (a) Validity.—The duration of the AME licence is five years.
- (b) Renewal.—An AME licence that has not expired may be renewed for an additional 5 years if the holder presents evidence to the Authority that he/she has within the past 24 months has exercised the privileges of the licence and complied with the recent experience requirements as contained in 2.6.2.10.
- (c) Reissue.—If the AME licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed a skill test on the areas of operation contained in IS: 2.6.2.7 for the AME general and any associated ratings.

Recent Experience Requirements.

- **2.6.2.10.**—(*a*) A licensed AME may not exercise the privileges of his/her licence 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 AME under his/her licence and rating;
 - (ii) Technically supervised other AMEs;
- (iii) Provided aviation maintenance instruction or served as the direct supervisor of persons providing aviation maintenance instruction for an AME course or program acceptable to the Authority;
- (iv) Supervised the maintenance, preventive maintenance, or alteration of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof; or
- (v) Been engaged in any combination of paragraphs (a)(2)(i) through (a)(2)(iv) of this subsection.

Display of Licence.

2.6.2.11.—(*a*) Each person who holds an AME 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-General, or any Federal, State, or local law enforcement officer.

2.6.3. Inspection Authorisations.

2.6.3.1.—(a) This Subpart prescribes the requirements for issuance of inspection authorisations, and the conditions under which these authorisations are necessary.

Applicability.

2.6.3.2.—(a) An applicant for an Inspection Authorisation shall:

Eligibility Requirements : General.

- (1) Hold a currently effective and valid AME license with both an airframe and powerplant rating, each of which is currently effective and has been in effect for a total of at least 3 years.
- (2) Have been actively engaged, for at least the 2-year period before the date of application, in the maintenance of certificated aircraft and maintained in accordance with these regulations.
- (3) Have a fixed base of operations at which the applicant may be located in person or by telephone during a normal working week but which need not be the place where the applicant will exercise inspection authority.
- (4) Have available the equipment, facilities, and inspection data necessary to properly inspect airframes, aircraft engines, propellers, or any related component, part, or appliance.
- (5) Pass a knowledge test that demonstrates the applicant's ability to inspect according to safety standards for approving aircraft for return to service after major and minor repairs, major and minor modifications, annual inspections, and progressive inspections, which are performed under Part 5.
 - (b) An applicant who fails the knowledge test prescribed in paragraph (a)(5) of this section may not apply for retesting until at least 90 days after the date he/she failed the test.

2.6.3.3. Knowledge Requirements for the IA

- (a) The applicant for the IA shall pass a knowledge test covering at least the following areas:
 - (1) Certification procedures for products and parts.
 - (2) Airworthiness standards-aircraft.
 - (3) Airworthiness standards-rotorcraft.
 - (4) Airworthiness directives.
 - (5) Maintenance, preventive maintenance, rebuilding, and alteration.
 - (6) Identification and registration marking.

- (7) Certification-Maintenance licensing.
- (8) General operating and flight rules.
- (9) Aircraft weight and balance.

Inspection Authorisation : Duration.

- **2.6.3.4.**—(*a*) Each inspection authorisation expires 12 months from the date of issue/renewal.
- (b) An inspection authorisation ceases to be effective whenever any of the following occurs :
 - (1) The authorisation is surrendered, suspended, or revoked.
 - (2) The holder no longer has a fixed base of operation.
- (3) The holder no longer has the equipment, facilities, and inspection data required by 2.6.3.2(a)(3) and (4) of these regulations for issuance of his/her authorisation.
- (c) The holder of an inspection authorisation that is suspended or revoked shall return it to the Authority.

Renewal of Authorisation.

- **2.6.3.5.**—(*a*) To be eligible for renewal of an Inspection Authorisation for a 1-year period, an applicant shall, within 90 days prior to the expiration of the authorisation, present evidence to the Authority that the applicant still meets the requirements of 2.6.3.2 of these regulations and show that, during the current period of authorisation, the applicant has—
 - (1) Performed at least one annual inspection during each 3 month period the applicant held the authorisation;
 - (2) Performed inspections of at least two major repairs or major modifications for each 3 month period the applicant held the authorisation;
 - (3) Performed or supervised and approved at least one progressive inspection in accordance with standards prescribed by the Authority for each 12 month period the applicant held the authorisation;
 - (4) Performed any combination of paragraphs (a)(1) through (a)(3);
 - (5) Successfully completed an Inspection Authorisation refresher course or series of courses acceptable to the Authority, of not less than 16 hours of instruction during the 12-month period preceding the application for renewal; or
 - (6) Passed a knowledge test administered by the Authority to determine that the applicant's knowledge of applicable regulations and standards is current.

2.6.3.6.—(*a*) When exercising the privileges of an IA, the holder shall keep it available for inspection by the aircraft owner and the AME submitting the aircraft, repair, or alteration for approval (if any), and shall present it at the request of the Authority or an authorised representative of the Director-General, or at the request of any Federal, State, or local law enforcement officer.

Privileges and Limitations.

- (b) The holder of an Inspection Authorisation (IA) with a current and valid AME license may:
 - (1) Inspect and approve for return to service any aircraft, airframe, aircraft engine, propeller appliance, component, or part thereof on any aircraft with a 5,700 kg maximum take-off weight or less, after completion of a major repair or major alteration performed in accordance with Part 5 and done in accordance with technical data approved by the Authority.
 - (2) Perform an annual inspection, or perform or supervise a progressive inspection, according to Part 5, on any aircraft with a 5,700 kg maximum take-off weight or less, except those aircraft on a continuous maintenance program, and approve the aircraft for return to service.
 - (c) The holder of an IA with a current and valid AME licence may not:
 - (1) Exercise the privileges of the authorisation unless he or she holds a current and valid AME licence with airframe and power plant ratings.
 - (2) Inspect and approve for return to service any aircraft over 5,700 kg maximum take-off weight.
 - (3) Inspect and approve any airframe, aircraft engine, propeller, appliance, component, or part thereof which is subject to a maintenance program under Part 9 of these regulations.
 - (4) Inspect and approve for return to service any aircraft maintained in accordance with a continuous maintenance program approved under Part 9 of these regulations.
 - (5) Exercise any privilege of an Inspection Authorisation whenever that person no longer—
 - (i) Has a fixed base of operation; and
- (ii) Has access to the equipment, facilities, or inspection data required by 2.6.3.2(a)(3) and (4) of these regulations.

(6) Exercise the privileges of the authorisation until he or she has notified the Authority in writing of any changes in the fixed base of operation and equipment, facilities or inspection data and received approval in writing from the Authority for the proposed change.

2.6.4. Aircraft Repair Specialist

Applicability.

2.6.4.1.—(*a*) This Subpart prescribes the requirements for issuance of Aircraft Repair Specialist (AR) licences and ratings, and the conditions under which those licenses and ratings are necessary.

2.6.4.2. Aircraft Repair Specialist Licences: Eligibility

- (a) An applicant for an aircraft 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) By specially qualified to perform maintenance on aircraft or components thereof, appropriate to the job for which he/she was employed.
- (5) Be employed for a specific job requiring those special qualifications by an approved maintenance organisation certificated under Part 6 or an air operator certificated under Part 9 of these regulations that is required by its operating certificate or approved specific operating provisions to provide maintenance, preventive maintenance, or modifications to aircraft approved with a continuous maintenance program according to its maintenance control manual.
- (6) Be recommended for certification by his employer, to the satisfaction of the Authority, as able to satisfactorily maintain aircraft or components, appropriate to the job for which he is employed.
 - (7) Have either of the following:
 - (i) At least 24 months of practical experience in the procedures, practices, inspection methods, materials, tools, machine tools, and equipment generally used in the maintenance duties of the specific job for which the person is to be employed and certificated; or
 - (ii) Completed formal training that is acceptable to the Authority and is specifically designed to qualify the applicant for the job on which the applicant is to be employed.

2.6.4.3. RATINGS

- (a) The following ratings may be issued under this sub-part:
 - (i) Propeller.
 - (ii) Computer.
 - (iii) Instrument.
 - (iv) Accessory.
 - (v) Components.
 - (vi) Welding.
 - (vii) Non destructive Testing (NDT).
 - (viii) Other as may be designated by the Authority.
- (b) At no instance shall an aircraft repair specialist licence be issued with an airframe and/or powerplant or avionics rating to circumvent the process of obtaining an AME 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 operations specifications 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.
- **2.6.4.4.**—(a) An aircraft 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 aircraft repair specialist is licensed and rated, but only in connection with employment by an AMO approved under Part 6 of these regulations 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) of these regulations.
- (b) An aircraft repair specialist may not perform or supervise duties unless the aircraft repair specialist understands the current instructions of the employing certificate holder and the instructions for continued airworthiness, which relate to the specific operations concerned.

Aircraft Repair Specialist Licenses: Privileges and Limitations. (c) An aircraft repair specialist licence must be surrendered to the Authority at the time the license holder leaves the employ of the AMO or AOC.

Display of Licence.

2.6.4.5.—(a) Each person who holds an aircraft 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 General, or any Federal, State, or local law enforcement officer.

Duration of Licence.

- **2.6.4.6.**—(*a*) Validity.
- (1) The duration of the aviation repairman licence is five years provided the licence holder is in the continual employment of the sponsoring AMO or an AOC in an aviation repairman position.
- (2) An aviation repairman licence must be surrendered to the Authority at the time the licence holder leaves the employ of the AMO or AOC.
 - (d) Renewal. An aviation repairman licence that has not expired may be renewed for an additional five years, subject to the continuation of employment, if the holder presents a recommendation for renewal from his/her employer, to the satisfaction of the Authority, as able to satisfactorily maintain aircraft or components, appropriate to the job for which he/she is employed.
 - 2.6.5. Instructors for Aircraft Maintenance Engineer Ratings
- **2.6.5.1.** Requirements for Aircraft maintenance Engineer Instructor Rating:
 - (a) Age: An applicant for aircraft maintenance engineer instructor licence and rating shall be at least 21 years of age.
 - (b) Knowledge:
- (1) An applicant for a aircraft maintenance engineer instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
 - (2) Any additional requirements as may be specified by the Authority.
 - (c) Experience: The applicant for an aircraft maintenance engineer instructor licence and rating shall hold at least a current and valid aircraft maintenance engineer licence and rating for which the instructor licence is sought and have a minimum of three years experience as an aircraft maintenance engineer.

- (d) Privileges: The privileges of aircraft maintenance engineer instructor licence are to give instruction to aircraft maintenance engineer licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (e) Validity: Subject to compliance with the requirements specified in this Part, the validity period of the aircraft maintenance engineer instructor licence is 2 years.
- (f)Renewal: An aircraft maintenance 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 —
- (1) Conducted at least six exercises in an approved course for an aircraft maintenance engineer licence or rating; or
 - (2) Received refresher training acceptable to the Authority.
 - (g) Reissue: If the aircraft maintenance engineer instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.
 - **2.6.6.** Designated aircraft Maintenance Engineer Examiners

2.6.6.1. General Requirements—

- (a) Age: An applicant for a aircraft maintenance engineer examiner designation shall be at least 23 years of age.
- (b) Medical: There are no medical requirements for an aircraft maintenance engineer examiner designation.
 - (c) General Eligibility:
- (1) Show evidence of a high level of aeronautical knowledge in the subject areas for AME certification in both reciprocating and turbine engine aircraft.
- (2) Have held a valid AME with the ratings for which a designation is to issue for five years.
- (3) Have been actively exercising the privileges of that AME certificate in the previous three years.
- (4) Have a good record as an AME and a person engaged in the industry and community with a reputation for honesty and dependability.
- (5) The applicant must have for test conducted using the skill test standard (STS) have a fixed base of operation adequately equipped to test at least 25 percent of all level 1, level 2, level 3 skill elements listed in Objective 3 of each subject area in the STS for the General, Airframe and Power plant.

Additionally, be equipped to perform all of the core competencies elements identified in Objective 2 of each subject area in the STS for General, Airframe and Powerplant ratings.

- (6) The applicant must have a fixed base of operation, equipment and materials, must be adequate for an applicant to demonstrate the basic skills of the rating sought.
- (7) The applicant must have an airworthy aircraft, other aircraft, aircraft subassemblies, operational mock-ups, and other aids that may be used for testing.
- (8) The applicant must have tools, equipment, material, current publications, and necessary apparatus required to complete a project assignment must be the type recommended by the aircraft manufactures or accepted in the aviation industry.

2.6.6.2. Knowledge—

- (a) The applicant shall pass a pre-designation test on the following:
- (1) Air Law and Regulations for AME personnel.
- (2) Current practices for the fleet of aircraft to be utilised.
- (3) Best industry practices.
- (4) Recent improvement in technology, testing and tooling.

2.6.6.3. Skill—

- (a) The applicant shall be observed conducting a complete, actual skill test using the approved STS in a satisfactory manner.
- (b) The applicant shall be observed completing the required documentation required by the Authority in a satisfactory manner.

2.6.6.4. Currency—

- (a) After designation, a designated aircraft maintenance engineer examiner shall maintain currency by—
- (1) Attending initial and recurrent training conducted by the Authority, and
 - (2) Maintaining a current and valid AME licence and applicable ratings.
 - (b) The designated AME examiner shall conduct at least 6 skill tests during any 12 calendar month period in order to the designation remain current.

- (c) The designated AME examiner shall be observed by the Authority in the conduct of skill test at least once each 12 calendar months.
 - 2.6.6.5. Privileges—
- (a) The designated AME examiner may conduct skill test in accordance with the STS standards.
 - 2.6.6.6. Validity—
 - (a) The AME examiner designation shall be valid for one year.
 - 2.6.6.7. Renewal—
 - (a) The AME examiner designation may be renewed by Authority if:
 - (1) The need for the designation remains valid.
- (2) The performance of the designated AME examiner has been satisfactory.
- (3) The designated AME examiner has attended the designated AME examiner training conducted by the Authority in the previous 12 calendar months.
 - 2.7. AIR TRAFFIC CONTROLLER LICENCES, CATEGORIES AND RATINGS
 - **2.7.1.**—(a) This section prescribes the requirements for the issue, Applicability. renewal and re-issue of an air traffic controller licence and ratings.
 - (b) Student air traffic controller
- (1) The Authority shall take the appropriate measures to ensure that student air traffic controllers do not constitute a hazard to air navigation.
- (2) The Authority shall not permit a student air traffic controller to receive instruction in an operational environment unless that student air traffic controller holds a current Class 3 Medical Assessment.
 - **2.7.2.**—(a) An applicant shall, before being issued with an air traffic General. controllers licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence, rating or authorization. Unlicensed State employees may operate as air traffic controllers on condition that they meet the same requirements.

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, power plants and systems; aircraft performances relevant to air traffic control operations.
- (4) Human performance: Human performance relevant to air traffic control, including principles of threats and errors management;
 - (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 authorised instructor who:

- (i) Conducted the training on the knowledge areas; and
- (ii) Certifies that the person is prepared for the required knowledge test.
- (2) Pass the required knowledge test.
- (e) Experience: The applicant shall have completed an approved training course and not less than three months' satisfactory service engaged in the actual control of air traffic under the supervision of an appropriately rated air traffic controller. The experience requirements specified for air traffic controller ratings in paragraph 2.7.3.2 will be credited as part of the experience specified in this paragraph.
- (f) Validity: Subject to compliance with the requirement specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.4.
- **2.7.3.2.**—(a) Air traffic controller ratings shall comprise the following categories :

Air Traffic Controller Ratings.

- (1) Aerodrome control rating.
- (2) Approach control rating.
- (3) Approach radar control rating.
- (4) Approach precision radar control rating.
- (5) Area control rating.
- (6) Area radar control rating.
- (b) Knowledge: The applicant for an air traffic controller rating shall receive knowledge instruction through an approved training course on the knowledge area appropriate to the holder an air traffic controller rating and have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following subjects in so far as they affect the area of responsibility:
 - (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 and area control surveillance ratings: The applicant shall meet the requirements specified in item 2 above) 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 service, 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 authorised instructor who:
 - (i) Conducted the training on the knowledge areas; and
 - (ii) Certifies that the person is prepared for the required knowledge test; and
 - (2) Pass the required knowledge test.
- (d) Experience: 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 control procedural, approach control surveillance, area control procedural or area control surveillance rating: the control service for which the rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought;
- (iii) Approach precision radar control rating: not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Authority. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought; and
- (3) If the privileges of the approach control surveillance rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated controller.
- (4) The experience specified under (2)(ii) shall have been completed within the 6-month period immediately preceding application.
- (5) When the applicant already holds an air traffic controller rating in another category, or the same rating for another unit, the Authority shall determine whether the experience requirement of 2.7.3.2 may be reduced, and if so, to what extent.
- (e) Skill: The applicant shall have demonstrated, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

(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 one or more of the under mentioned ratings shall be:
 - (i) Aerodrome control rating: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated;
 - (ii) Approach control procedural rating: To provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;

- (iii) Approach control surveillance rating: To provide and/or supervise the provision of approach control service with the use of applicable ATS surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service; 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 procedural rating: To provide and/or supervise the provision of area control service within the control area or portion thereof, for which the licence holder is rated; and
- (vi) Area control surveillance rating: To provide and/or supervise the provision of area control service with the use of an ATS surveillance system, within the control area or portion thereof, for which the licence holder is rated.
- (2) Before exercising the privileges indicated in (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.
- (h) When two air traffic controller ratings are sought concurrently, the Authority shall determine the applicable requirements on the basis of the requirements for each rating. These requirements shall not be less than those of the more demanding rating.
- $\mathbf{2.8.}$ Flight Dispatcher Licence, Rating(s), Instructors, and Designated Examiners

Applicability.

2.8.1.—(a) This section prescribes the requirements for the issue, renewal and re-issue of a flight dispatcher licence, instructors for flight dispatcher licences and designation of flight dispatcher examiner.

2.8.2.—(*a*) An applicant shall, before being issued with a flight dispatcher licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence.

General.

- (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 Dispatcher Licence.

2.8.3.1. General Requirements—

- (a) Age: The applicant for a flight dispatcher licence shall be not less than 21 years of age.
- (b) Knowledge: The applicant for a flight dispatcher licence shall receive and log training from an authorized instructor and have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight dispatcher licence, in at least the following subjects.
 - (1) Air law:
- (i) Rules and regulations relevant to the holder of a flight dispatcher licence:
 - (ii) Appropriate air traffic services practices and procedures;
 - (2) Aircraft general knowledge:
 - (i) Principles of operation of aeroplane engines, systems and instruments;
 - (ii) Operating limitations of aeroplanes and engines;
 - (iii) Minimum equipment list;
 - (3) Flight performance calculation, planning procedures and loading:
- (i) Effects of loading and mass distribution on aircraft performance and flight characteristics; mass and balance calculations;
- (ii) Operational flight planning; fuel consumption and endurance calculations; alternate aerodrome selection procedures; en-route cruise control; extended range operation;
 - (iii) Preparation and filing of air traffic services flight plans; and
 - (iv) Basic principles of computer-assisted planning systems.
 - (4) Human performance:
- (i) Human performance relevant to dispatch duties, including principles of threats and errors management;

(5) Meteorology:

- (i) Aeronautical meteorology; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions.
- (ii) Interpretation and application of aeronautical meteorological reports, charts and forecasts, codes and abbreviations; use of, and procedures for obtaining, meteorological information.
 - (6) Navigation:
- (i) Principles of air navigation with particular reference to instrument flight.
 - (7) Operational procedures:
 - (i) Use of aeronautical documentation;
- (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; and
 - (8) Principles of Flight relating to the appropriate category of aircraft.
 - (9) Radio communication:
- (i) Procedures for communicating with aircraft and relevant ground stations.
 - (c) The applicant for the flight dispatcher licence shall:
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge areas; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test.
 - (d) Experience.

- (1) The applicant for a flight dispatcher licence shall have gained the following experience:
 - (i) A total of 2 years of service in any one or in any combination of the capacities specified in (A) to (C) inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least one year:
 - (a) A flight crewmember in air transportation; or
 - (b) A meteorologist in an organisation dispatching aircraft in air transportation; or
 - (c) An air traffic controller; or a technical supervisor of flight dispatchers 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 dispatcher for at least 90 working days within the 6 months immediately preceding the application.
- (e) Skill: The applicant shall have demonstrated the ability, by passing a skill test on the subjects listed in IS 2.8.3.2 to:
 - (1) Make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports; provide an operationally valid briefing on weather conditions prevailing in the general 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 dispatcher licence.
 - (4) Recognize and management threats and errors.
- (f) Privileges: Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight dispatcher 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 5 years. A licence shall become invalid when a flight dispatcher has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the flight dispatcher's ability to exercise the privileges of the licence has been re-established.
- (h) Renewal: The flight dispatcher licence may be renewed by presenting to the Authority evidence of successfully passing a competency check on the areas of operation listed in IS: 2.8.3.2.
- (i) Reissue: If the flight dispatcher licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the skill test on the areas of operation contained in IS: 2.8.3.2.

Skill Test for the Flight Dispatcher Licence.

Flight
Dispatcher
Licence
Aircraft
Type
Ratings.

- **2.8.3.2.**—(*a*) Implementing Standard (IS) 2.8.3.2 contains the list of operations included in the flight dispatcher licence skill test.
- **2.8.3.3.**—(a) The applicant for Flight Dispatcher Aircraft type rating shall receive knowledge instruction through an approved training course on the knowledge area appropriate to the holder of a flight Dispatcher Aircraft type rating and have demonstrated a level of knowledge appropriate to the privileges as specified in 8.10.1.14 (D).
- (b) The applicant for the Flight Dispatcher Aircraft type rating (s) shall provide evidence of successful completion of the approved training as specified in (a) above before endorsement as a rating on the valid flight Dispatcher licence.
- (c) Privileges: Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight dispatcher Aircraft type rating (s) shall be to serve in that capacity with responsibility for each aircraft type for which the applicant meets the requirements, as contained in Parts 8 of these regulations.
- (d) Validity: Subject to compliance with the requirements specified in this Part, the validity period of the Flight Dispatcher aircraft type rating is 1 year.
 - 2.8.4. Instructors for Flight Dispatchers

2.8.4.1.—(a) Age: An applicant for Flight Dispatcher instructor rating shall be at least 21 years of age.

Requirements for Flight dispatcher Instructor Rating.

- (b) Knowledge:
- (1) An applicant for a Flight Dispatcher instructor rating shall have met the instructor requirements in 2.2.6 of this part; and

- (2) Any additional requirements as may be specified by the Authority.
- (c) Experience: The applicant for a Flight Dispatcher instructor rating shall hold at least a current and valid Flight Dispatcher licence and have a minimum of three years experience as a Flight Dispatcher.
- (d) Privileges: The privileges of a Flight Dispatcher instructor rating are to give instruction to Flight Dispatcher licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (e) Validity: Subject to compliance with the requirements specified in this Part, the validity period of the Flight Dispatcher instructor rating is 2 years.
- (f)Renewal: A Flight Dispatcher instructor rating that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he/she has within the past 12 months preceding the expiry date—
 - (1) Conducted at least six exercises in an approved course for a Flight Dispatcher rating; or
 - (2) Received refresher training acceptable to the Authority.
- (g) Reissue: If the Flight Dispatcher instructor rating has expired, the applicant shall have received refresher training acceptable to the Authority.
 - **2.8.5.** Designated Examiners for Flight Dispatchers.
 - **2.8.5.1.** General Requirements.
- (a) Age. An applicant for a flight dispatcher examiner designation shall be at least 23 years of age.
 - (b) General Eligibility.
 - (1) Show evidence of a high level of aeronautical knowledge in the subject areas for the FD certification.
 - (2) Have held a FD license for at least five years prior to the designation.
 - (3) Have been actively exercising the privileges of the FD license in commercial air transport in the previous three years.
 - (4) Have a good record as a FD and a person engaged in the industry and community with a reputation for hones and dependability.
 - (5) Have satisfactorily completed the FD examiner orientation program with the Authority.

(6) The applicant must have available a test site that is fully capable of doing all items required for the proper dispatch of a commercial flight in accordance with the regulatory requirements. This may be the flight dispatch of an active commercial airline.

2.8.5.2. Knowledge

- (a) The applicant shall have passed a pre-designation test on the following:
- (1) Air Law and Regulations for FD personnel.
- (2) Aircraft knowledge on the aircraft used for testing.
- (3) Flight performance calculation and planning procedures.
- (4) Human performance.
- (5) Meteorology.
- (6) Navigation.
- (7) Radio communication.
- (8) Recent changes in technology to include fly by wire aircraft systems, GPS navigation, required navigation performance (RNP) requirements, TCAS, ADS-B, as well and Enhanced Wind Shear Systems.

2.8.5.3. Skill.

- (a) The Authority shall observe the applicant conducting a complete actual FD certification using the approved STS in a satisfactory manner.
- (b) The applicant shall complete all required paper work for the certification as required by the Authority.

2.8.5.4. Currency.

- (a) After designation, a FD examiner shall maintain currency by
- (1) Attending initial and recurrent training conducted by the Authority, and
 - (2) Maintaining a current and valid FD licence.
 - (b) The designated FD examiner shall conduct at least 6 skill tests during any 12 calendar month period in order for the designation to remain current.
 - (c) The designated FD examiner shall be observed by the Authority in the conduct of a skill test at least once each 12 calendar months.

2.8.5.5. *Privileges.*

(a) The designated FD examiner may conduct Skill test for the Flight Operation Officer license in accordance with approved STS standard.

- (b) The designated FD examiner may conduct or monitor any portion of a computerised knowledge test.
 - 2.8.5.6. Validity.
 - (a) The FD examiner designation shall be valid for three years.
 - 2.8.5.7. Renewal.
 - (a) The FD examiner designation may be renewed by the Authority if:
 - (1) The need for the designation remains valid;
 - (2) The performance of the examiner has been satisfactory; and
 - 2.9. AERONAUTICAL STATION OPERATOR PERSONNEL

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 specificied for that licence. Unlicensed individuals may operate as aeronautical station operators on the condition that they meet the same requirements.
- (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.**—(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. Air traffic services provided within Nigeria.
 - (2) Operational Procedures. Radiotelephony procedures; phraseology; telecommunication network.
 - (3) Rules and regulations. Rules and regulations applicable to the aeronautical station operator.
 - (4) Telecommunication equipment. Principles, use and limitations of telecommunication equipment in an aeronautical station.

- (c) Knowledge Testing.—An applicant for an aeronautical station operator licence shall—
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge areas; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (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 and limitations.—Subject to compliance with the requirements specified in this Part:
- (1) The privileges of the holder of an aeronautical station operator licence shall be to act as an operator in an aeronautical station.
- (2) 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.
- (3) The aeronautical station operator licence does not qualify the holder to provide Aerodrome Flight Information Service.
 - (g) Validity.—The validity period of the licence is 5 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.

- (h) Renewal: An aeronautical station operator licence that has not expired may be renewed every 5 years if the holder presents to the Authority evidence that he/she has within the past 6 months preceding the expiry date —
- (1) Be actively engaged in the duties of an aeronautical station operator ; or
 - (2) Received refresher training acceptable to the Authority.
 - (i) Reissue: If the Aeronautical Station Operator licence has expired, the applicant shall have received refresher training acceptable to the Authority.
- **2.10.** Parachute Rigger Licences, Instructors and Designated Parachute Rigger Examiners.

2.10.1.1. Applicability.

- (a) This Subpart prescribes the requirements for issuance of a parachute rigger licenses and ratings, and the conditions under which those licenses and ratings are necessary.
 - **2.10.1.2.** *Eligibility Requirements* : General.
 - (a) To be eligible for a parachute rigger license, a person shall—
 - (1) Be at least 18 years of age.
 - (2) 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.

2.10.1.3. License Required.

- (a) No person may pack, maintain, or alter any personnel-carrying parachute intended for emergency use in connection with civil aircraft of Nigeria unless he or she holds an appropriate current license and type rating issued under this Subpart and complies with this Subpart.
- (b) Except as allowed by paragraph (c) of this subsection, no person may pack, maintain, or alter any main parachute of a dual parachute pack to be used for intentional jumping from a civil aircraft of Nigeria 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 General Office, or any Federal, State or Local Law Enforcement Officer.
 - (e) The following parachute rigger licences are issued under this part:
 - (1) Senior parachute rigger.
 - (2) Master parachute rigger.
- (f)Sections 2.10.1.9 through 2.10.1.12 do not apply to parachutes packed, maintained, or altered for the use of the armed forces.

2.10.1.4.—(a) 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; and
 - (iii) The regulations of this Subpart.
- (3) Pass skill test showing the ability to pack and maintain at least one type of parachute appropriate to the type rating sought. Requirements for the skill test are contained in IS 2.10.1.4.
- **2.10.1.5.** Master Parachute Rigger Licence : 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.

Senior Parachute Rigger Licence: Experience, Knowledge, and Skill Requirements.

- (iii) An applicant may combine experience specified in paragraphs (a) (1) and (2) of this paragraph to meet the requirements of this subsection.
- (2) If the applicant is not the holder of a senior parachute rigger license, pass a knowledge test, with respect to parachutes appropriate to the type rating sought, on—
 - (i) Their construction, packing, and maintenance;
 - (ii) The manufacturer's instructions; and
 - (iii) The regulations of this Subpart.
- (3) Pass skill test showing the ability to pack and maintain two types of parachutes appropriate to the type ratings sought. Requirements for the skill test are contained in IS 2.10.1.5.
 - 2.10.1.6. Type Ratings.
 - (a) The following type ratings are issued under this subpart:
 - (1) Seat.
 - (2) Back.
 - (3) Chest.
 - (4) Lap.
- (b) The skill test requirements for a type rating are contained in IS 2.10.1.6.
- (c) The holder of a senior parachute rigger licence who qualifies for a master parachute rigger licence is entitled to have placed on the senior parachute rigger licence the ratings that were on the parachute rigger licence.
 - 2.10.1.7. Additional Type Ratings: Requirements.
- (a) A licenced parachute rigger who applies for an additional type rating shall—
 - (1) Present evidence satisfactory to the Authority of having packed at least 20 parachutes of the type rating sought, in accordance with the manufacturer's instructions and under the supervision of a licensed parachute rigger holding a rating for that type or a person holding an appropriate military rating; and
 - (2) Pass a skill test, to the satisfaction of the Authority, showing the ability to pack and maintain the type of parachute for which the applicant seeks a rating.

- 2.10.1.8. Privileges
- (a) A licenced 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 licenced 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 licenced parachute rigger need not comply with 2.10.1.9 through 2.10.1.12 of these regulations (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.
 - 2.10.1.9. Facilities and Equipment
 - (a) No licenced parachute rigger shall exercise the privileges of his licence unless he or she has at least the following facilities and equipment available—
 - (1) A smooth top table at least three feet wide by 40 feet long;
- (2) Suitable housing that is adequately heated, lighted, and ventilated for drying and airing parachutes;
- (3) Enough packing tools and other equipment to pack and maintain the types of parachutes serviced; and
- (4) Adequate housing facilities to perform applicable duties and to protect tools and equipment.
 - 2.10.1.10. Performance Standards and Recency Requirements
 - (a) No licenced 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 licence and type rating unless he or she understands the current manufacturer's instructions for the operation involved and has—
 - (i) Performed duties under the license for at least 90 days within the preceding 12 months; or
 - (ii) Shown to the Authority the ability to perform those duties.
 - 2.10.1.11. Records.
 - (a) Each licenced parachute rigger shall keep a record of the packing, maintenance, and alteration of parachutes performed or supervision of those activities.
 - (b) Each licenced parachute rigger who packs a parachute shall enter on the parachute packing record attached to the parachute, the date and place of the packing, a notation of any defects found during any inspection, and shall sign that record with his or her name and license number.
 - (c) Each parachute rigger shall sign the record required by paragraph (b) of this subsection with the name and the number of his or her license.
 - (d) The record required by paragraph (a) of this subsection shall contain, with respect to each parachute worked on, a statement of—
 - (1) Its type and make;
 - (2) Its serial number;
 - (3) The name and address of its owner or user;
 - (4) The kind and extent of the work performed;
 - (5) The date when and place where the work was performed; and
 - (6) The results of any drop tests made with it.
- (e) Each person who makes a record under paragraph (a) of this subsection shall keep it for at least 2 years after the date it is made.
 - 2.10.1.12. Seal.
 - (a) Each licenced parachute rigger shall have a seal with an identifying mark prescribed by the Authority, and a seal press.
 - (b) After packing a parachute, the parachute rigger shall seal the pack with his or her seal in accordance with the manufacturer's recommendation for that type of parachute.

2.10.1.13. Duration of Parachute Rigger Licence

- (a) Validity: The validity period of the licence is 5 years. A licence shall become invalid when a parachute rigger has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the parachute rigger's ability to exercise the privileges of the licence has been re-established.
- (b) Renewal: An parachute rigger licence that has not expired may be renewed for an additional five years if the holder presents to the Authority evidence that he/she has within the past 6 months preceding the expiry date
 - (1) Be actively engaged in the duties of a parachute rigger, or
 - (2) Received refresher training acceptable to the Authority.
- (c) Reissue: If the parachute rigger licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the skill test on the areas of operation contained in IS: 2.10.1.4, IS: 2.10.1.5, or IS: 2.10.1.6, as applicable to the licence to be renewed.

2.10.1.14. Display of Licence

- (a) Each person who holds a parachute rigger licence shall keep it within the immediate area where he/she normally exercises the privileges of the licence and shall present it for inspection upon the request of the Authority or an authorised representative of the Director General, or any Federal, State, or local law enforcement officer.
 - 2.10.2. Parachute Rigger Instructor Requirements
 - 2.10.2.1. Requirements for a parachute rigger Instructor Licence
- (a) Age: An applicant for parachute rigger instructor licence and rating shall be at least 21 years of age.
 - (b) Knowledge:
- (1) An applicant for a parachute rigger instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
 - (2) Any additional requirements as may be specified by the Authority.
 - (c) Experience: The applicant for a parachute rigger instructor licence shall hold at least a current and valid parachute rigger licence and ratings applicable to the instructor licence sought, and have a minimum of three years experience as a parachute rigger.

- (d) Privileges: The privileges of a parachute rigger instructor licence and rating are to give instruction to parachute rigger licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (e) Validity: Subject to compliance with the requirements specified in this Part, the validity period of the parachute rigger instructor licence is 2 years.
- (f)Renewal: A parachute rigger 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—
- (1) Conducted at least six exercises in an approved course for a parachute rigger licence; or
 - (2) Received refresher training acceptable to the Authority.
 - (g) Reissue: If the parachute rigger instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.
 - **2.10.3.** Designated Parachute Rigger Examiner Requirement.
 - 2.10.3.1. General Requirements.
 - (a) Age: An applicant for a parachute rigger examiner designation shall be at least 23 years of age.
 - (b) General Eligibility.
- (1) Show evidence of a high level of aeronautical knowledge in the subject areas for the DPRE certification.
 - (2) Have held a PR license for at least five years prior to the designation.
- (3) Have been actively exercising the privileges of the PR for the previous three years.
- (4) Have a good record as a PR and a person engaged in the industry and community with a reputation for hones and dependability.
- (5) Have satisfactorily completed the DPRE orientation program with the Authority.
- (6) The applicant must have fixed base of operations adequately equipped to all practical Subject Areas to return to service condition.
- (7) The applicant shall have at the fixed base of operation adequate equipment to test the Tasks in each Area of Operation listed in the PTS.

- (8) The applicant shall have tools, equipment, current publications, and materials required to complete a project assignment as recommended by the parachute manufacture or industry standards.
 - 2.10.3.2. Knowledge.
 - (a) The applicant shall have passed a pre-designation test on the following:
 - (1) Air Law and Regulations for PR personnel.
 - (2) Packing and maintaining a wide variety of parachutes.
- (3) Alterations of parachutes in accordance with manufactures and industry standards.
 - (4) Proper use of Seals for identification purposes.
 - (5) Proper record keeping requirements.
 - 2.10.3.3. Skill.
 - (a) The Authority shall observe the applicant conducting a complete actual Senior Parachute or Master Parachute Rigger certification using the approved STS in a satisfactory manner.
 - (b) The applicant shall complete all required paper work for the certification as required by the Authority.
 - 2.10.3.4. Currency.
 - (a) After designation, a DPRE shall maintain currency by
- (1) Attending initial and recurrent training conducted by the Authority, and
- (2) Maintaining a current and valid parachute rigger licence and applicable ratings.
 - (b) The DPRE shall conduct at least 6 Skill test during any 12 calendar month period in order for the designation to remain current.
 - (c) The DPRE shall be observed by the Authority in the conduct of a Skill test at least once each 12 calendar months.
 - 2.10.3.5. Privileges
 - (a) The DPRE may conduct Skill test for the Senior Parachute Rigger and Master Parachute Rigger license in accordance with approved STS standard.
 - (b) The DPRE may conduct or monitor any portion of a computerised knowledge test.

- 2.10.3.6. Validity
- (a) The parachute rigger examiner designation shall be valid for one year.
 - 2.10.3.7. Renewal
- (a) The parachute rigger examiner designation may be renewed by the Authority if:
 - (1) The need for the designation remains valid.
 - (2) The performance of the examiner has been satisfactory.
- (3) The examiner has attended the DPRE seminar conducted by the Authority in the previous 12-month period.

2.11. MEDICAL PROVISIONS FOR LICENSING

2.11.1. *General.*

- 2.11.1.1. Applicability
- (a) This Section prescribes the requirements and procedures for issuing, renewing and re-issuing Class 1, Class 2 and Class 3 medical certificates.
- (b) The Authority shall apply, as part of its State safety programme, basic safety management principles to the medical assessment process of licence holders, that as minimum include:
 - (i) routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
 - (ii) continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

2.11.1.2. 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) A flight crew member or air traffic controller shall not exercise the privileges of his/her licence unless he/she holds a current medical certificate appropriate to the licence.
 - 2.11.1.3. Authorised Aviation Medical Examiners (AAME).
- (a) Subject to compliance with the requirements specified in this Part, the Authority will designate and authorise qualified and licensed physicians in the practice of medicine, to be authorised as an AAME and conduct medical examinations of fitness of applicants for the issue, renewal or reissue of the licences or ratings specified in this Part. AAMEs may be designated outside of Nigeria.

- (b) AAMEs 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 2.11.1.3. (a); and
- (2) Advance training in aviation medicine for Class 1 medical examinations on the subjects listed in IS 2.11.1.3(b).
- (3) AAMEs shall have received training in aviation medicine and shall receive refresher training at regular intervals. Before designation, medical examiners shall demonstrate adequate competency in aviation medicine.
 - (c) AAMEs shall have practical knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.
- *Note*.—Examples of practical knowledge and experience are flight experience, simulator experience, on-site observation or any other hands-on experience deemed by the Authority to meet this requirement.
 - (*d*) The authorisation of an AAME is valid for one year. The AAME shall have completed at least 10 examinations for a medical certificate per year. Re-authorisation shall be at the discretion of the Authority.
 - (e) Having completed the medical examination of the applicant in accordance with this part, the AAME shall coordinate the results of the examination and submit a signed report, or equivalent, to the Authority, in accordance with the Authority's 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 two or more AAMEs, the Authority shall appoint one of these to be responsible for coordinating the results of the examination, evaluating the findings with regard to medical fitness, and signing the report.
 - (g) The Authority retains the right to reconsider any action of an AAME.
 - (h) If the medical report is submitted to the Authority in electronic format, adequate identification of the examiner shall be established.
 - (i) AAMEs shall be required to submit sufficient information to the Authority to enable it undertake Medical Assessment audits.
- *Note.*—The purpose of such auditing is to ensure that AAMEs meet applicable standards for good medical practice and aeromedical risk assessment.

2.11.1.4. Aviation Medical Examinations

- (a) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the AAME 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 AAME 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 AAME 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) The applicant shall be made aware of the necessity for giving a statement that is as complete and accurate as the applicant's knowledge permits, and any false declaration to an AAME made by an applicant for a licence or rating shall be reported to the Authority for such action as may be considered appropriate.
- (e) The applicant shall complete the appropriate application form as detailed in IS 2.11.1.3.
- **2.11.1.5.**—(*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:

Special Circumstances.

- (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 jeopardise 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 Authority with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.
- (b) The AAME shall report to the Authority any individual case where, in the AAME's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardise flight safety.

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Decrease of Medical Fitness

- **2.11.1.6.**—(a) 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.
- (b) Licence holders shall inform the Authority of 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.
- (c) The Authority shall ensure that licence holders are provided with clear guidelines on medical conditions that may be relevant to flight safety and when to seek clarification or guidance from an AAME or the Authority.
- (d) The Authority shall, as far as practicable, ensure that licence holders do not exercise the privileges of their licences and related ratings during any period in which their medical fitness has, from any cause, decreased to an extent that would have prevented the issue or renewal of their Medical Assessment.

Use of Psychoactive Substances.

- **2.11.1.7.**—(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.
- (c) The Authority will ensure, as far as practicable, that all licence holders who engage in any kind of problematic use of substances are identified and removed from their safety-critical functions. Return to the safety-critical functions may be considered after successful treatment or, in cases where no treatment is necessary, after cessation of the problematic use of substances and upon determination that the person's continued performance of the function is unlikely to jeopardize safety.

Medical Certificate.

- **2.11.1.8.**—(*a*) The medical certificate shall be in a form and manner prescribed by the Authority. The items required on the licence are indicated in IS 2.11.1.8.
 - (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 issue of the Class 1 medical certificate may be specifically delegated to an AAME.
- (ii) The issue of Class 2 and 3 medical certificates may be delegated to any authorised AAME.
- (2) Each person to be issued a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this Subpart.
- (3) Any person who does not meet the medical requirements of this Subpart may apply for the discretionary issuance of a certificate under 2.11.1.5 of these regulations.
 - (c) Validity:
 - (1) The validity period of the medical certificate shall be:
 - (i) 12 months for the Class 1 for the CPL, MPL and ATPL licences.
 - (ii) 12 months for the Class 2 for the FE licences.
 - (iii) 60 months for the Class 2 for the PPL licences.
 - (iv) 24 months for the Class 2 for the Cabin Crew licences.
 - (v) 24 months for the Class 2 for the SPA.
 - (vi) 48 months for the Class 3 for the air traffic controller licence.
 - (2) The exceptions for the validity period of the medical certificates are :
 - (i) When the holders have passed their 40th birthday:
 - (a) The 60 month interval specified for the PPL and the 48th month interval specified for the air traffic controller licence shall be reduced to 24 months; and
 - (b) The 12-month interval specified for the CPL and ATPL who are carrying passengers in single-pilot operations shall be reduced to 6 months.
 - (c) The 24-month interval specified for the Cabin Crew licence and SPA shall be reduced to 12 months.
 - (ii) When holders have passed their 50th birthday:
 - (a) The 24-month interval specified for the PPL and air traffic controller licence shall be reduced to 12 months.
 - (iii) When holders have passed their 60th birthday:
 - (a) The 12-month interval specified for the CPL, MPL, and ATPL who are engaged in commercial air transport operations shall be reduced to 6 months.

- *Note*.—The periods of validity listed above are based on the age of the applicant at the time of undergoing the medical examination.
- (3) For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. The period of validity shall for the last month counted, include the day that has the same calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.
- (4) The period of validity of a Medical Assessment may be extended, at the discretion of the Authority, up to 45 days.
- *Note*.—It is advisable to let the calendar day on which the Medical Assessment expires remain constant year after year by allowing the expiry date of the current Medical Assessment to be the beginning of the new validity period under the proviso that the medical examination takes place during the period of validity of the current Medical Assessment but no more than 45 days before it expires.
- (5) The period of validity of a Medical Assessment may be reduced when clinically indicated.
 - (d) Renewal or re-issue of a medical certificate.
- (1) The requirements to be met for the renewal or re-issue of a medical certificate are the same as those for the initial certificate except where otherwise specifically stated.
- (2)The renewal of the Class 1, 2 and 3 medical certificate may be delegated to the authorised AAME.
- (3) Re-issue of the Class 1 medical certificate will be done by the Authority.
- (4) Re-issue of the Class 2 and 3 medical certificate may be delegated to the authorised AAME.
 - (e) Limitation or denial.
- (1) The Authority may for medical reasons limit or deny a medical certificate. The Authority will describe the medical reasons for the limitation or denial in a notice to the applicant.
 - (f)Suspension or revocation of a medical certificate.
- (1) The Authority may in accordance with paragraph 2.2.9 of these regulations, suspend or revoke a medical certificate issued, if it is established that an applicant or a certificate holder has not met, or no longer meets the requirements of Part 2.

2.11.1.9.—(a) Medical confidentiality shall be respected at all times.

Medical confidentiality.

- (b) All medical reports and records shall be securely held with accessibility restricted to authorised personnel.
- (c) When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials of the Authority.
- **2.11.1.10.** —(a) The competence of an AAME shall be evaluated Medical periodically by the Medical Assessor.

Assessor.

- (b) The Authority shall use the services of Medical Assessors to evaluate reports submitted to the Authority by AAMEs.
- **2.11.1.11.**—(a) The prescribed re-examination of a licence holder operating in an area distant from Authorised Aviation medical examination facilities may be deferred at the discretion of the Authority, provided that such deferment shall only be made as an exception and shall not exceed:

Circumstances in which a Medical Examination may be Deferred.

- (1) a single period of six months in the case of a flight crew member of an aircraft engaged in non-commercial operations;
- (2) two consecutive periods each of three months in the case of a flight crew member of an aircraft engaged in commercial operations provided that in each case a favourable medical report is obtained after examination by an Authorised Aviation medical examiner of the area concerned, or, in cases where such an Authorised Aviation medical examiner is not available, by a physician legally qualified to practise medicine in that area. A report of the medical examination shall be sent to the Authority;
- (3) in the case of a private pilot, a single period not exceeding 24 months where the medical examination is carried out by a medical examiner whose designation meets the requirement of ICAO Annex 1.2.4.5 by the Contracting State in which the applicant is temporarily located. A report of the medical examination shall be sent to the Authority.

2.11.2. Medical Requirements.

2.11.2.1. General.

- (a) An applicant for a Medical Certificate issued in accordance with this Part, shall undergo a medical examination based on the following requirements:
 - (1) Physical and mental;
 - (2) Visual and colour perception; and
 - (3) Hearing.

- 2.11.2.2. Physical and Mental Requirements.
- (a) An applicant for any class of Medical Assessment shall be required to be free from :
 - (1) Any abnormality, congenital or acquired; or
 - (2) Any active, latent, acute or chronic disability; or
 - (3) Any wound, injury or sequela from operation; or
- (4) Any effect or side-effect of any prescribed or non-prescribed therapeutic medication taken; such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.
- *Note*.—Use of herbal medication and alternative treatment modalities requires particular attention to possible side-effects.
 - 2.11.2.3. Visual Acuity Test Requirements:
- (a) Visual acuity tests must be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m²).
- (b) Visual acuity must be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.
 - 2.11.2.4. Colour Perception Requirements.
- (a) The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.
- (b) The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission of Illumination (CIE).
- (c) An applicant obtaining a satisfactory result as prescribed by the Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the 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.
- (d) Sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarizing and of a neutral grey tint.

- teaT gningaH.energy 15.2.5.—(a) Applicants shall be required to demonstrate hearing performance sufficient for the safe exercise of their licence and rating privileges.
- (b) The hearing test may be conducted using a pure tone audiometer or alternate method that provides equivalent results. This test shall be performed at the first medical examination and then at specified intervals according to the class of medical examination and age of the applicant.
- (c) If a pure tone audiometer is used, the reference zero for calibration is that of the International Organisation for Standardisation (ISO) Recommendation R389, 1964.
- (d) For hearing tests where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests under the following conditions.
 - (1) A quiet room is a room in which the intensity of the background noise is less than 35 dB(A) when measured on "slow" response of an "A"-weighted sound level meter.
 - (2) The sound level of an average conversational voice at 1 m from the point of output is 60dB(A) and that of a whispered voice is 45dB(A). At 2 m from the speaker, the sound is 6dB(A) lower.
- (e) The holder of a PPL with an instrument rating shall meet the hearing requirements for the Class 1 medical certificate.
 - 2.11.2.6. Class 1 Medical Certificate.
 - (a) Certificate Issue and Renewal.
- (1) An applicant for CPL, Multi-crew pilot licence or ATPL shall undergo an initial medical examination for the issue of a class 1 medical certificate.
 - (2)(*i*) Except where otherwise stated in this part, holders of CPL, Multicrew pilot or ATPL shall have their class 1 medical certificate renewed at intervals not exceeding those specified in this subpart.
 - (ii) In alternate years, for Class 1 applicants under 40 years of age, the Authority shall, at its discretion, allow AAMEs to omit certain routine examination items related to the assessment of physical fitness, whilst increasing the emphasis on health education and prevention of ill health.
- (3) A Class 1 medical certificate will be issued when the applicant complies with the requirements of this Part.

- (b) Physical and Mental Requirements :
- (1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
 - (2)(A) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:
 - (i) An organic mental disorder;
 - (ii) A mental or behavioral disorder due to use of psychoactive substances; this includes dependence syndrome induced by alcohol or other psychoactive substances;
 - (iii) Schizophrenia or a schizotypal or delusional disorder;
 - (iv) A mood (affective) disorder;
 - (v) A neurotic, stress-related or somatoform disorder;
 - (vi) A behavioral syndrome associated with physiological disturbances or physical factors;
 - (vii) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
 - (viii) Mental retardation;
 - (ix) A disorder of psychological development;
 - (x) A behavioral or emotional disorder, with onset in childhood or adolescence; or
 - (xi) A mental disorder not otherwise specified.
 - (*B*) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the Medical Assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (3) The applicant shall have no established medical history or clinical diagnosis of any of the following :
 - (i) A progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (ii) Epilepsy; or
 - (iii) Any disturbance of consciousness without a satisfactory medical explanation of the cause.

- (4) The applicant shall not have suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (5) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (6) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (7) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (8) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate.
- (9)(i) Electrocardiography shall be included in re-examination of applicants over the age of 50 no less frequently than annually.
 - (ii) Electrocardiography shall be included in re-examinations of applicants between the ages of 30 and 50 no less frequently than every two years.
- (10) The systolic and diastolic blood pressures shall be within normal limits.
- (11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.
- (12) There shall be no significant functional or structural abnormality of the circulatory system.
- (13) There shall be no acute disability of the lungs or active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.
 - (14) Radiography shall form a part of the initial chest examination.

- (15) Applicant's with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (16) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (17) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.
- (18) Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- (19) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.
- (20) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.
- (21) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.
- (22) Applicants with sequela of disease of, or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstructions due to stricture or compression shall be assessed as unfit.
- (23) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the Medical 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.
- (24) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (25) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- (26) Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

- (27) Applicants with disease of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (28) Applicants with renal or genitourinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (29) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.
- (30) Applicants with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (31) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- (32) Applicants who are seropositive for Human Immunodeficiency Virus (HIV) shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- *Note*: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.
- (33) Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.
- (34) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.
- (35) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with the provisions of this subpart, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

- (36) 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.
- (37) 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.
- (38) 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.
 - (39) There shall be:
 - (i) No disturbance of vestibular function;
 - (ii) No significant dysfunction of the Eustachian tubes; and
 - (iii) No unhealed perforation of the tympanic membranes.
- (40) A single dry perforation of the tympanic membrane need not render the applicant unfit.
- (41) There shall no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (42) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.
 - (c) Visual Requirements:
- (1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.
- (2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
 - (i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

- (3) Applicants may use contact lenses to meet the requirement of (b) provided that:
 - (i) The lenses are monofocal and non-tinted;
 - (ii) The lenses are well tolerated; and
 - (iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.
- (4) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.
- (5) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical certificate and every five years thereafter.
- (6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
- (7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correcting already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the 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.
- (8) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
 - (9) The applicant shall be required to have normal fields of vision.
 - (10) The applicant shall be required to have normal binocular function.
- (11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.
 - (d) Hearing Requirements:
 - (1) The applicant shall be tested by pure-tone audiometry.
 - (i) At the first issue of the Medical Assessment;

- (ii) At least once every five years up to the age of 40 years;
- (iii) At least once every two years after the age of 40 years.
- (2) The applicant shall not have a hearing loss in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz. However, an applicant with a hearing loss greater than the above may be declared fit provided that :
 - (i) The applicant has a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that simulates the masking properties of flight deck noise upon speech and beacon signals; and
 - (ii) The applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner.
- (3) Alternatively, a practical hearing test conducted in flight in the cockpit of an aircraft of the type for which the applicant's licence and ratings are valid may be used.
- *Note* 1.—It is important that the background noise be 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.
 - 2.11.2.7. Class 2 Medical Certificate.
 - (a) Certificate issue and renewal.
- (1) An applicant for a PPL, a FE or FN licence shall undergo an initial medical examination for the issue of a Class 2 Medical Certificate.
- (2) Except where otherwise stated in this subpart, holders of a PPL, a FE or a FN licence shall have their Class 2 Medical Certificate renewed at intervals not exceeding those specified in this subpart.
- (3) A Class 2 Medical Certificate will be issued when the applicant complies with the requirements of this Part.
 - (b) Physical and mental requirements.
- (1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

- (2)(a) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:
 - (i) An organic mental disorder;
 - (ii) A mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;
 - (iii) Schizophrenia or a schizotypal or delusional disorder;
 - (iv) A mood (affective) disorder;
 - (v) A neurotic, stress-related or somatoform disorder;
 - (vi) A behavioural syndrome associated with physiological disturbances or physical factors;
 - (vii) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
 - (viii) Mental retardation;
 - (ix) A disorder of psychological development;
 - (x) A behavioural or emotional disorder, with onset in childhood or adolescence; or
 - (xi) A mental disorder not otherwise specified.
- (*B*) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the Medical Assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (3) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (i) A progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (ii) Epilepsy; or
 - (iii) Any disturbance of consciousness without satisfactory medical explanation of cause.
- (4) The applicant shall not have suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.

- (5) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (6) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarection or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (7) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (8) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate:
 - (i) After the age of 40; and
 - (ii) In re-examinations every two years after the age of 50.
- (9) The systolic and diastolic blood pressures shall be within normal limits.
- (10) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.
- (11) There shall be no significant functional or structural abnormality of the circulatory system.
- (12)(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 during normal or emergency operations.
 - (ii) Chest radiography shall form part of the initial and periodic examinations in cases where asymptomatic pulmonary disease can be expected.
- (13) Applicant's with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

- (14) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (15) 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.
- (16) Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- (17) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.
- (18) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- (19) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.
- (20) Applicants with sequelae of disease of, or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to structure or compression shall be assessed as unfit.
- (21) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the Medical 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.
- (22) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (23) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- (24) Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.
- (25) Applicants with disease of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

- (26) Applicants with renal or genitor-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (27) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.
- (28) Applicants with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (29) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- (30) Applicants who are seropositive for Human Immunodeficiency Virus (HIV) shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- *Note*: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.
- (31) Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.
- (32) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.
- (33) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with this subpart, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.
- (34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.
- (35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

- (36) The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
 - (37) There shall be:
 - (i) No disturbance of vestibular function;
 - (ii) No significant dysfunction of the Eustachian tubes; and
 - (iii) No unhealed perforation of the tympanic membranes.
- (38) A single dry perforation of the tympanic membrane need not render the applicant unfit.
- (39) There shall no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (40) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.
 - (c) Visual Requirements.
- (1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.
- (2) Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
 - (i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.
- (3) Applicants may use contact lenses to meet the requirement of (b) provided that:
 - (i) The lenses are monofocal and non-tinted;
 - (ii) The lenses are well tolerated; and
 - (iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

- (4) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.
- (5) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical certificate and every five years thereafter.
- (6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
- (7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correcting already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the 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.
- (8) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
 - (9) The applicant shall be required to have normal fields of vision.
 - (10) The applicant shall be required to have normal binocular function.
- (11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.
 - (d) Hearing Requirements.
 - (1) The applicant shall be tested by pure-tone audiometry.
 - (i) At the initial medical examination.
 - (ii) At least once every two years after the age of 50 years.
- (2) When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz, shall be assessed as unfit.

- (3) The applicant shall have the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner or be assessed as unfit.
- (4) The applicant who holds a PPL with an IR shall meet the hearing requirements for a Class 1 medical certificate.
- (5) An applicant who does not meet the requirements in 2.11.2.7(d)(2) or 2.11.2.7(d) (3) shall undergo further testing in accordance with 2.11.2.6(d)(2)(i).
 - 2.11.2.8. Class 3 Medical Certificate.
 - (a) Certificate issue and renewal.
- (1) An applicant for an Air Traffic Controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Certificate.
- (2) Except where otherwise stated in this subpart, holders of an Air Traffic Controller licence shall have their Class 3 Medical Certificate renewed at intervals not exceeding those specified in this subpart.
- (3) A Class 3 Medical Certificate will be issued when the applicant complies with the requirements of this Part.
 - (b) Physical and mental requirements.
- (1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
 - (2)(a) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:
 - (i) An organic mental disorder;
 - (ii) A mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;
 - (iii) Schizophrenia or a schizotypal or delusional disorder;
 - (iv) A mood (affective) disorder;
 - (v) A neurotic, stress-related or somatoform disorder;
 - (vi) A behavioural syndrome associated with physiological disturbances or physical factors;
 - (vii) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

- (viii) Mental retardation;
- (ix) A disorder of psychological development;
- (x) A behavioural or emotional disorder, with onset in childhood or adolescence; or
 - (xi) A mental disorder not otherwise specified.
- (b) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (3) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (i) A progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (ii) Epilepsy; or
 - (iii) Any disturbance of consciousness without satisfactory medical explanation of cause.
- (4) The applicant shall not have suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (5) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (6) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (7) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

- (8) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate and in re-examinations every two years after the age of 50.
- (9) The systolic and diastolic blood pressures shall be within normal limits.
- (10) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.
- (11) There shall be no significant functional or structural abnormality of the circulatory system.
- (12) There shall be no disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleurae 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.
- (13) Applicant's with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (14) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (15) 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.
- (16) Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- (17) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.
- (18) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- (19) Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstructions due to stricture or compression, shall be assessed as unfit.

- (20) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the Medical Assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation.
- (21) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (22) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- (23) 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.
- (24) Applicants with disease of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (25) Applicants with renal or genitor-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (26) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.
- (27) Applicants with sequelae of disease or surgical procedures on the kidneys or the genito-urinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (28) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- (29) Applicants who are seropositive for Human Immunodeficiency Virus (HIV) shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

- *Note*: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.
- (30) Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.
- (31) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.
- (32) During the gestational period, precautions shall be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications.
- (33) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with this subpart, the fit assessment shall be limited to the period until the end of the 34th week of gestation.
- (34) Following confinement or termination of pregnancy the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.
- (35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (36) The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (37) There shall be no malformation or any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (38) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.
 - (c) Visual Requirements.
- (1) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

- (2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
 - (i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.
- Note.—An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.
- (3) Applicants may use contact lenses to meet the requirement of (b) provided that:
 - (i) The lenses are monofocal and non-tinted;
 - (ii) The lenses are well tolerated; and
- (iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.
- (4) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.
- (5) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical Certificate and every five years thereafter.
- (6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

- (7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correcting already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the 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* 2.—An applicant who needs near correction to meet the requirement will require "look-over", bifocal or perhaps multi-focal 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 air traffic control duties the applicant is likely to perform.
- (8) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
 - (9) The applicant shall be required to have normal fields of vision.
 - (10) The applicant shall be required to have normal binocular function.
- (11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.
 - (d) Hearing Requirements.
 - (1) The applicant shall be tested by pure-tone audiometry.
 - (i) At the initial medical examination.
 - (ii) At least once every four years up to the age of 40 years.
 - (iii) At least once every two years after the age of 40 years.

- (2) The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.
- (3) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experience in a normal air traffic control working environment.
- (4) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.

NIGERIA CIVIL AVIATION REGULATIONS

PART 2—IMPLEMENTING STANDARDS

- **IS 2.2.1.**—(*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.
- Issue, Renewal and Re-issue of Licences, Ratings, Authorisations, Designations, and Certificates.
- (b) Issue, renewal and re-issue of licences, ratings, authorisations, designations and certificates will be performed by the Authority.
- (c) Notwithstanding (b), renewal of ratings and category II/III pilot authorisations may be performed by the Examiner, when delegated by the Authority.
- (d) Notwithstanding (b), renewal of medical certificates may be performed by the AAME, when delegated by the Authority.
- (e) Application for the issue, renewal and re-issue of licences, ratings, authorisations, designations or certificates by the Authority shall be done by submitting to the Authority a properly filled out form, which can be obtained from the Authority. This form must be submitted to the Authority at least 14 days before the expiry date.

IS 2.2.2.—(*a*) General.

Language Proficiency.

- (1) To meet the language proficiency requirements contained in 2.2.2, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the Authority, compliance with the holistic descriptors in paragraph (*b*) below and with the Operational Level (Level 4) of the Language Proficiency Rating Scale as mentioned in paragraph (*c*) below.
 - (2) Holistic descriptors: Proficient speakers shall:
- (i) Communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations;
- (ii) Communicate on common, concrete and work-related topics with accuracy and clarity;
- (iii) Use appropriate communicative strategies to exchange messages and to recognise and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;
- (*iv*) 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

- (ν) Use a dialect or accent which is intelligible to the aeronautical community.
 - (3) Rating scale:
 - (i) Pre-elementary Level (Level 1):
 - (a) Pronunciation: Performs at a level below the Elementary Level.
 - (b) Structure: Performs at a level below the Elementary Level.
 - (c) Vocabulary: Performs at a level below the Elementary Level.
 - (d) Fluency: Performs at a level below the Elementary Level.
 - (e) Comprehension: Performs at a level below the Elementary Level.
 - (f) Interactions: Performs at a level below the Elementary Level.
 - (ii) Elementary Level (Level 2):
 - (a) Pronunciation: Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.
 - (b) Structure: Shows only limited control of a few simple memorized grammatical structures and sentence patterns.
 - (c) *Vocabulary*: Limited vocabulary range consisting only of isolated words and memorized phrases.
 - (d) 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.
 - (e) Comprehension: Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.
 - (f) Interactions: Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
 - (iii) Pre-operational Level (Level 3):
 - (a) Pronunciation: Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.
 - (a) Structure: Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.
 - (c) 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.

- (d) 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.
- (e) 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.
- (f) Interaction: Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
- (4) Operational Level (Level 4):
- (i) Pronunciation: Pronunciation, stress, rhythm and intonation are influenced by the first language or regional variation but only sometimes interfere with understanding.
- (ii) Structure: Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.
- (iii) Vocabulary: Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.
- (iv) Fluency: Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.
- (v) Comprehension: Comprehension is mostly accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.
- (vi) Interactions: Responses are usually immediate, appropriate and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming or clarifying.

- (5) Extended Level (Level 5):
- (i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.
- (ii) Structure: Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.
- (iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.
- (iv) Fluency: Able to speak at length with relative ease on familiar topics, but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.
- (v) Comprehension: Comprehension is accurate on common, concrete, and work related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.
- (vi) Interactions: Responses are immediate, appropriate, and informative. Managers the speaker/listener relationship effectively.
 - (6) Expert Level (Level 6):
- (i) Pronunciation: Pronunciation, stress, rhythm, and intonation, thought possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
- (ii) Structure: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.
- (iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.
- (iv) Fluency: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.
- (*v*) *Comprehension*: Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.
- (vi) Interactions: Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues, and responds to them appropriately.

IS 2.2.3.1. Credit for Military Pilots.

- (a) Requirements for a military pilot to meet the requirements of 2.2.3.1.
- (b) Military pilots on active flying status within the past 12 months. The holder of a military pilot 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 Nigeria.
 - (c) Aircraft category, class and type ratings. The Authority may issue to the holder of a military pilot licence (or certificate) an aircraft category, class or type rating to a commercial pilot licence if the pilot present documentary evidence that shows satisfactory accomplishment of:
- (1) A military pilot check and instrument proficiency check of Nigeria] 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 Nigeria] in the aircraft category for the instrument rating sought; and
- (2) Received authorisation from an armed force of Nigeria to conduct IFR flights on airways in that aircraft category and class for the instrument rating sought.
 - (e) Aircraft type Rating. The Authority will issue an aircraft type rating only for aircraft types that the Authority has certified for civil operations.

- (f) Aircraft type rating placed on an airline transport pilot licence. The Authority 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 Nigeria check and instrument proficiency check in that type of aircraft as PIC during the 12 calendar months before the month of application.
 - (g) Evidentiary documents. The Authority may accept the following documents as satisfactory evidence of military pilot status.
- (1) An official identification card issued to the pilot by an armed force to demonstrate membership in the armed forces.
- (2) An original or a copy of a certificate of discharge or release from an armed force of Nigeria.
 - (3) At least one of the following:
 - (i) An order of an armed force of Nigeria 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 Nigeria 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 Nigeria.
- (5) An official armed force of Nigeria] record of a military designation as PIC.
- (6) An official record of satisfactory accomplishment of an instrument proficiency check during the 12 calendar months preceding the month of application.

IS: 2.2.4.1(c)(3)

LICENCE	LICENCE	VALIDATION PRIVILEGES
ATPL(A)	> 1 500 hours as PIC in multi-pilot * certificated aeroplanes	Commercial air transport in multi-pilot aeroplanes as PIC
ATPL(PL)	>1500 hours as PIC in multi-pilot certificated powered-lift or 1500 hours in multi-pilot operations in a combination of powered-lift; aeroplane and helicopter aircraft as acceptable to the Authority	Commercial air transport in multi-pilot powered-lift as PIC
ATPL(H)	>1 000 hours as PIC on multi-pilot helicopters	Commercial air transport multi-pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	> 500 hours as PIC or co-pilot on multipilot aeroplanes	Commercial air transport in multi-pilot aeroplanes as co-pilot
ATPL(PL) or CPL(PL)/IR	> 500 hours as PIC or co-pilot on multi- pilot powered-lift	Commercial air transport in multi-pilot powered-lift as co-pilot
ATPL(H) or CPL(H)/IR	> 500 hours as PIC or co-pilot on multipilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot
CPL(A)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot aeroplanes as PIC
CPL(H)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot helicopters as PIC
CPL(A)	> 700 hours in aeroplanes other than gliders, including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in aeroplanes other than commercial air transport
CPL(H)	> 700 hours in helicopters including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in helicopters other than commercial air transport
CPL(PL)	>700 hours in powered-lift (or combination of powered-lift, aeroplane and helicopter as acceptable to the Authority) including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in powered-lift other than commercial air transport

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

Note: The term multi-pilot is used to indicate experience in an aircraft required to be operated with a co-pilot.

Note : > = greater than

- **IS 2.2.4.3.**—(a) The Authority should, before making the agreement mentioned in 2.2.4.3 (a)(3) be convinced, that the other Contracting State issues licences in conformity with at least this Part 2 by conducting a regulatory comparison of the licensing systems and requirements.
- (b) An inspector, legal counsel and/ or licensing subject matter experts from Nigeria, or from another Contracting State delegated by the Authority, 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. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.
- (c) An Air Law test must be arranged if the Air Law system of Nigeria] is different from the Air Law system from the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures and radiotelephony if those areas are different between Nigeria and the other Contracting State.
- (*d*) Application for the validation certificate shall be done by submitting to the Authority a properly filled out form, which can be obtained from the Authority.
- **IS 2.2.4.4.**—(*a*) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.
- (b) The Authority should, before making the agreement mentioned in 2.2.4.4(a)(3) be convinced, that the other Contracting State issues licences 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 Nigeria or from another Contracting State delegated by the Authority, 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. 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.

Procedures for Validation of Flightcrew Licences by Reliance upon the Licensing System of Another Contracting State.

Procedures for Conversion of Flightcrew Licences by Reliance upon the Licensing System of Another Contracting State.

- (1) An Air Law test must be arranged if the Air Law system of Nigeria is different from the Air Law system from the other Contracting State. Other areas that may require knowledge testing are meteorology, operational procedures and radiotelephony if those areas are different between Nigeria and the other Contracting State.
 - (d) Renewal and re-issue of converted licences and ratings:
- (1) when examiners are available in Nigeria 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 authorised examiners of the Authority.
- (2) when examiners are not available in Nigeria 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 2.2.4.4 (a)(3).
 - (e) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which can be obtained from the Authority.
 - (f) The conversion of medical certificates, and/or reliance on medical examinations conducted in the other State, may also be addressed in the government-to-government agreement between the States.
- **IS 2.2.4.9.**—(a) The Authority should, before making the agreement mentioned in 2.2.4.9 (a)(3) be convinced, that the other Contracting State issues licences in conformity with at least this Part 2 by conducting a regulatory comparison of the licensing systems and requirements.
- (b) An inspector, legal counsel and/or licensing subject matter experts from Nigeria, or from another Contracting State delegated by the Authority of Nigeria, 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. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.
- (c) An Air Law test must be arranged if the Air Law system of Nigeria is different from the Air Law system from the other Contracting State. The knowledge test may also include Nigeria airworthiness requirements governing certification and continuing airworthiness, and approved maintenance organisations and procedures if those regulations are different from the Contracting State.

Procedures for Validation of AME Licences by Reliance upon the Licensing System of Another Contracting State.

- (*d*) Application for the validation certificate shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.
- **IS 2.2.4.10.**—(*a*) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.
- (b) The Authority should, before making the agreement mentioned in 2.2.4.10 (a)(3) be convinced, that the other Contracting State issues licences 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 the Authority or from another Contracting State delegated by the Authority, 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. The report, and the regulatory comparison noted in item (b) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.
 - (1) An Air Law test must be arranged if the Air Law system of Nigeria is different from the Air Law system from the other Contracting State. The knowledge test may also include Nigeria airworthiness requirements governing certification and continuing airworthiness, and approved maintenance organisations and procedures if those regulations are different from the Contracting State.
 - (d) Renewal and re-issue of converted licences and ratings:
 - (2) when examiners are available in Nigeria 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 authorised examiners of the Authority;
 - (3) when examiners are not available in Nigeria 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 2.2.4.4 (a)(3).
- (e) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which can be obtained from the Authority.

Procedures for Conversion of AME Licences by Reliance upon the Licensing System of Another Contracting State.

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Specifications and Format of the Licence.

- **IS 2.2.8.**—(*a*) The following details shall appear on the licence and the numbering scheme shall be in Roman numerals.
 - (1) Name of Nigeria (in bold type);
 - (2) Title of licence (in very bold type)
- (3) Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;
 - (4) Name of holder in full;
 - (5) Date of birth;
 - (6) Address of holder;
 - (7) Nationality of holder;
 - (8) Signature of holder;
- (9) Authority and, where necessary, conditions under which the licence is issued;
- (10) Certification concerning validity and authorisation for holder to exercise privileges appropriate to the licence;
 - (11) Signature of officer issuing the licence and the date of such issue;
 - (12) Seal or stamp of authority issuing the licence;
- (13) Ratings, (e.g. Category, class, type of aircraft, airframe, aerodrome control, etc.);
- (14) Remarks, (i.e. special endorsements relating to limitations and endorsements for privileges, including from 5 March 2008 an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention);
 - (15) Any other details desired by the State issuing the licence.
- (b) The privileges and ratings shall be clearly identified on the licence in items (a) (IX) and (XII).

Note: Item (VI) Nationality is presumed to be citizenship of the licence holder.

IS 2.3.1.7.—(a) The details in the records of flights flown as pilot shall contain the items in (b) and (c) below.

Recording of Flight Time.

- (b) For the purpose of meeting the requirements of 2.3.1.6, each person shall enter the following information for each flight or lesson logged.
 - (1) Personal details:
 - (iv) Name of the holder.
 - (v) Address of the holder.
 - (2) For each flight:
 - (vi) Name of PIC.
 - (vii) Date of flight.
 - (viii) Place and time of departure and arrival.
 - (ix) Type of aircraft and registration.
 - (3) For each session in a flight simulation training device :
 - (i) Type and qualification number of flight simulation training device.
 - (ii) Flight simulation training device instruction.
 - (iii) Date.
 - (iv) Total time of session.
 - (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 authorised instructor may log as PIC time all of the flight time while acting as an authorised instructor.
- (*iii*) A student pilot may log as PIC time all solo flight time and flight time as student 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 authorised instructor in an aircraft or flight simulation training device.
 - (ii) The instruction time shall be logged in a record (e.g. logbook) and shall be endorsed by the authorised instructor.

Category II and III Authorisation.

- **IS 2.3.2.5.**—(*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: skill 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 skill test for this authorisation during the 12 calendar months preceding the month of the test—
 - (iii) Meet the requirements of 8.4.1.10; and
 - (iv) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.
- (3) An applicant shall accomplish the approaches specified in paragraph (e)(2)(ii)(B) of this subsection—
 - (i) Under actual or simulated instrument flight conditions;
 - (ii) To the minimum decision height for the ILS approach in the type aircraft in which the practical test is to be conducted, except that the approaches need not be conducted to the decision height 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—
 - (A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

- (b) Is used in accordance with an approved course conducted by an ATO 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;
 - (ν) 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—
 - (A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and
 - (*B*) Is used in accordance with an approved course conducted by an ATO 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.
- (ν) 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—
 - (A) Meet the requirements of 8.4.1.10 and 8.10.1.20, 8.10.1.32.; and
 - (B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.
- (3) An applicant shall conduct the approaches specified in paragraph (2)(ii)(B) of this subsection—
 - (i) Under actual or simulated instrument flight conditions;

- (ii) To the alert height or decision height for the ILS approach in the type aircraft in which the practical test is to be conducted;
- (iii) Not necessarily to the decision height 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—
 - (A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought; and
 - (*B*) Is used in accordance with an approved course conducted by an ATO certified under Part 3, Subpart 3.3.
- (4) *Knowledge requirements*: An applicant shall demonstrate knowledge of the following:
 - (i) Required landing distance.
 - (ii) Determination and recognition of the alert height or decision height, as applicable, including use of a radar altimeter.
 - (iii) Recognition of and proper reaction to significant failures encountered prior to and after reaching the alert height or decision height, as applicable.
 - (*iv*) Missed approach procedures and techniques using computed or fixed attitude guidance displays and expected height loss as they relate to manual go around or automatic go around, and initiation altitude, as applicable.
 - (v) Use and limitations of RVR, including determination of controlling RVR and required transmissometers.
 - (vi) Use, availability, or limitations of visual cues and the altitude at which they are normally discernible at reduced RVR readings including—
 - (A) Unexpected deterioration of conditions to less than minimum RVR during approach, flare, and rollout;
 - (B) Demonstration of expected visual references with weather at minimum conditions;
 - (C) The expected sequence of visual cues during an approach in which visibility is at or above landing minima; and
 - (D) Procedures and techniques for making a transition from instrument reference flight to visual flight during a final approach under reduced RVR.

- (vii) Effects of vertical and horizontal windshear.
- (viii) Characteristics and limitations of the ILS and runway lighting system.
- (ix) Characteristics and limitations of the flight director system auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other Category III equipment.
- (x) Assigned duties of the SIC during Category III operations, unless the aircraft for which 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—
 - (A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and
 - (*B*) Is used in accordance with an approved course conducted by an ATO 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.

Student Pilots.

IS 2.3.3.—(*a*) A student pilot who is receiving training for solo flight shall receive and log flight training for the following manoeuvres and procedures, as applicable for each category and class rating as specified in the applicable subsection to this IS.

Note: When (SE) is indicated, the item is only for single engine aircraft. When (ME) is indicated, the item is only for multi-engine aircraft.

- **IS 2.3.3.2.** *Student Pilots*: Manoeuvres and Procedures for Pre-Solo Flight Training—Aeroplane Category.
- (a) A student pilot who is receiving training for solo flight in an aeroplane shall receive and log flight training for the following manoeuvres and procedures:
- (1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
 - (2) Taxiing, or surface operations, including runups.
 - (3) Takeoffs and landings, including normal and crosswind.
 - (4) Straight and level flight and turns in both directions.
 - (5) Climbs and climbing turns.
 - (6) Aerodrome traffic patterns including entry and departure procedures.
- (7) Collision avoidance, windshear avoidance and wake turbulence avoidance.

- (8) Descents, with and without turns, using high and low drag configurations.
 - (9) Flight at various airspeeds from cruise to slow flight.
- (10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall and recovery from a full stall.
 - (11) Emergency procedures and equipment malfunctions.
 - (12) Ground reference manoeuvres.
 - (13) Approaches to a landing area with simulated engine malfunctions.
 - (14) Slips to a landing (SE only).
 - (15) Go-arounds.
- **IS 2.3.3.3.** *Student Pilots*: Manoeuvres and Procedures for Pre-Solo Flight Training—Helicopter Category.
 - (a) A student pilot who is receiving training for solo flight in a helicopter shall receive and log flight training for the following manoeuvres and procedures:
- (1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
 - (2) Taxiing, or surface operations, including runups.
 - (3) Takeoffs and landings, including normal and crosswind.
 - (4) Straight and level flight and turns in both directions.
 - (5) Climbs and climbing turns.
 - (6) Aerodrome traffic patterns including entry and departure procedures.
- (7) Collision avoidance, windshear avoidance and wake turbulence avoidance.
- (8) Descents, with and without turns, using high and low drag configurations.
 - (9) Flight at various airspeeds.
 - (10) Emergency procedures and equipment malfunctions.
 - (11) Ground reference manoeuvres.
 - (12) Approaches to the landing area.
 - (13) Hovering and hovering turns.

- (14) Go-arounds.
- (15) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to hover.
 - (16) Rapid decelarations.
- (17) Simulated one-engine-inoperative approaches and landings for multiengine helicopters (ME).
- **IS 2.3.3.4.** *Student Pilots*: Manoeuvres and Procedures for Pre-Solo Flight Training—Powered-Lift Category.
- (a) A student pilot who is receiving training for solo flight in a powered-lift shall receive and log flight training for the following manoeuvres and procedures:
- (1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
 - (2) Taxiing, or surface operations, including runups.
 - (3) Takeoffs and landings, including normal and crosswind.
 - (4) Straight and level flight and turns in both directions.
 - (5) Climbs and climbing turns.
 - (6) Aerodrome traffic patterns including entry and departure procedures.
- (7) Collision avoidance, windshear avoidance and wake turbulence avoidance.
 - (8) Descents, with and without turn.
 - (9) Flight at various airspeeds from cruise to slow flight.
- (10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall.
 - (11) Emergency procedures and equipment malfunctions.
 - (12) Ground reference manoeuvres.
 - (13) Approaches to a landing area with simulated engine failure.
 - (14) Go-arounds.
 - (15) Approaches to the landing area.
 - (16) Hovering and hovering turns.

- (17) Simulated one-engine-inoperative approaches and landings for multiengine powered-lift (ME).
- **IS 2.3.3.5.** *Student Pilots*: Manoeuvres and Procedures for Pre-Solo Flight Training—Airship Category
 - (a) A student pilot who is receiving training for solo flight in an airship shall receive and log flight training for the following manoeuvres and procedures:
- (1) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
 - (2) Taxiing, or surface operations, including runups.
 - (3) Takeoffs and landings, including normal and crosswind.
 - (4) Straight and level flight and turns in both directions.
 - (5) Climbs and climbing turns.
 - (6) Aerodrome traffic patterns including entry and departure procedures.
- (7) Collision avoidance, windshear avoidance and wake turbulence avoidance.
 - (8) Descents, with and without turn.
 - (9) Flight at various airspeeds from cruise to slow flight.
 - (10) Emergency procedures and equipment malfunctions.
 - (11) Ground reference manoeuvres.
- (12) Rigging, ballasting, and controlling pressure in the ballonets, and superheating.
 - (13) Landings with positive and with negative static trim.
- **IS 2.3.3.6.** *Student Pilots*: Manoeuvres and Procedures for Pre-Solo Flight Training—Balloon Category
 - (a) A student pilot who is receiving training for solo flight in a balloon shall receive and log flight training for the following manoeuvres and procedures:
 - (1) Layout and assembly procedures;
- (2) Proper flight preparation procedures, including preflight planning and preparation, and aircraft systems;
 - (3) Ascents and descents;
 - (4) Landing and recovery procedures;

- (5) Emergency procedures and equipment malfunctions;
- (6) Operation of hot air or gas source, ballast, valves, vents, and rip panels as appropriate;
 - (7) Use of deflation valves or rip panels for simulating an emergency;
 - (8) The effects of wind on climb and approach angles; and
 - (9) Obstruction detection and avoidance techniques.
- **IS 2.3.3.7.** *Student Pilots*: Manoeuvres and Procedures for Pre-Solo Flight Training—Glider Category.
 - (a) A student pilot who is receiving training for solo flight in a glider shall receive and log flight training for the following manoeuvres and procedures:
- (1) Proper flight preparation procedures, including preflight planning and preparation, aircraft systems, and is applicable, powerplant operations;
 - (2) Taxiing or surface operations, including runups, if applicable;
 - (3) Launches, including normal and crosswind;
 - (4) Straight and level flight, and turns in both directions, if applicable;
 - (5) Aerodrome traffic patterns, including entry procedures;
- (6) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
 - (7) Descents with and without turns using high and low drag configurations;
 - (8) Flight at various airspeeds;
 - (9) Emergency procedures and equipment malfunctions;
 - (10) Ground reference manoeuvres;
- (11) Inspection of towline rigging and review of signals and release procedures, if applicable;
 - (12) Aerotow, ground tow, or self-launch procedures;
 - (13) Procedures for disassembly and assembly of the glider;
 - (14) Stall entry, stall, and stall recovery;
 - (15) Straight glides, turns, and spirals;
 - (16) Landings, including normal and crosswind;
 - (17) Slips to a landing;
 - (18) Procedures and techniques for thermalling; and

- (19) Emergency operations, including towline break procedures.
- IS 2.3.4. Private Pilot Licence.
- **IS 2.3.4.2.**—(*a*) The skill test for the single-engine and multi-engine private pilot licence -aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

PPL Skill Test— Aeroplane Category.

- *Note* 1 : When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.
- *Note* 2 : When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.
- (1) Preflight preparation ; including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Airworthiness requirements.
 - (iii) Weather information.
 - (iv) Cross-country flight planning.
 - (v) National airspace system.
 - (vi) Performance and limitations.
 - (vii) Operation of system.
 - (viii) Principles of flight.
 - (ix) Water and Seaplane Characteristics (S).
 - (x) Seaplane bases, maritime rules and aids to marine navigation (S).
 - (xi) Aeromedical factors.
- (2) Preflight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine Starting.
 - (iv) Taxiing (L).
 - (v)Taxiing and Sailing (S).
 - (vi) Before takeoff check.

- (3) Aerodrome and seaplane operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.
- (iii) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting.
- (4) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind takeoff and climb.
 - (ii) Normal and crosswind approach and landing.
 - (iii) Soft-field takeoff and climb (SE) (L).
 - (iv) Soft-field approach and landing (SE) (L).
- (v) Short-field (Confined area (S)) takeoff and maximum performance climb.
 - (vi) Short-field approach (Confined area (S)) and landing.
 - (vii) Glassy Water takeoff and climb (S).
 - (viii) Glassy water approach and landing (S).
 - (ix) Rough water takeoff and climb (S).
 - (x) Rough water approach and landing (S).
 - (xi) Forward slip to a landing (SE).
 - (xii) Go-around/rejected landing.
- (5) Performance manoeuvre ; including the applicant's knowledge and performance of the following tasks—
 - (i) Steep turns.
- (6) Ground reference manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Rectangular course.
 - (ii) S-turns.
 - (iii) Turns around a point.
- (7) Navigation ; including the applicant's knowledge and performance of the following tasks—
 - (i) Pilotage and dead reckoning.
 - (ii) Navigation systems and radar services.
 - (iii) Diversion.

- (iv) Lost procedures.
- (8) Slow flight and stalls ; including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring during slow flight;
 - (ii) Power-off stalls;
 - (iii) Power-on stalls;
 - (iv) Spin awareness.
- (9) Basic instrument manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight.
 - (ii) Constant airspeed climbs.
 - (iii) Constant airspeed descents.
 - (iv) Turns to headings.
 - (v) Recovery from unusual flight.
 - (vi) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks—
- (10) Emergency operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Emergency approach and landing.
 - (ii) Emergency descent (ME).
 - (*iii*) Engine failure during takeoff before minimum controllable airspeed (VMC) (simulated) (ME).
 - (iv) Engine failure after lift-off (simulated) (ME).
 - (v) Approach and landing with an inoperative engine (simulated) (ME).
 - (vi) Systems and equipment malfunctions.
 - (vii) Emergency equipment and survival gear.
- (11) Multi-engine operations (ME) ; including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring with one engine inoperative.
 - (ii) VMC demonstration.
 - (iii) Engine failure during flight (by reference to instruments).
 - (iv) Instrument approach—one engine inoperative (by reference to instruments).

- (12) Night operation; including the applicant's knowledge and performance of the following tasks—
 - (i) Night preparation.
- (13) Post-flight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) After landing, parking and securing.
 - (ii) Anchoring (S).
 - (iii) Docking and mooring (S).
 - (iv) Ramping/Beaching (S).

IS 2.3.4.3. PPL Skill Test—Helicopter Category.

- (a) The skill test for the private pilot licence helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Cross-country flight planning.
 - (iv) National airspace system.
 - (v) Performance and limitations.
 - (vi) Operation of system.
 - (vii) Minimum equipment list.
 - (viii) Aeromedical factors.
- (2) Preflight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine Starting and rotor engagement.
 - (iv) Before takeoff check.
- (3) Aerodrome and heliport operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.

- (iii) Aerodrome and heliport markings and lighting.
- (4) Hovering manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Vertical takeoff and landing.
 - (ii) Slope operations.
 - (iii) Surface taxi.
 - (iv) Hover taxi.
 - (v) Air taxi.
- (5) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
 - (6) Normal and crosswind takeoff and climb.
 - (7) Normal and crosswind approach.
 - (8) Maximum performance takeoff and climb.
 - (i) Steep approach.
 - (ii) Rolling takeoff.
 - (iii) Shallow approach and running/roll-on landing.
 - (iv) Go-around.
- (9) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks—
 - (i) Rapid deceleration.
 - (ii) Straight in autorotation.
- (10) Navigation; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Pilotage and dead reckoning.
 - (ii) Radio navigation and radar services.
 - (iii) Diversion.
 - (iv) Lost procedures.
- (11) Emergency operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Power failure at a hover.
 - (ii) Power failure at altitude.
 - (iii) Systems and equipment malfunctions.
 - (iv) Settling-with-power.

- (v) Low rotor RPM recovery.
- (vi) Dynamic rollover.
- (vii) Ground resonance.
- (viii) Low G conditions.
- (ix) Emergency equipment and survival gear.
- (12) Night operation; including the applicant's knowledge and performance of the following tasks—
 - (i) Physiological aspects of night flying.
 - (ii) Lighting and equipment for night flying.
- (13) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) After landing and securing.

IS 2.3.4.4. PPL Skill Test—Powered-Lift Category.

(a) Reserved.

IS 2.3.4.5. PPL Skill Test—Airship Category

- (a) The skill test for the private pilot licence- airship category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Preflight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Certificates and documents.
 - (ii) Weather information.
 - (iii) Cross-country flight planning.
 - (iv) National airspace system.
 - (v) Performance and limitations
 - (vi) Operation of systems.
 - (vii) Aeromedical factors.
- (2) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine starting.
 - (iv) Unmasting and positioning for takeoff.

- (v) Ground handling.
- (vi) Before takeoff check.
- (3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.
 - (iii) Airport and runway markings and lighting.
- (4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:
 - (i) Ground weigh-off.
 - (ii) Up-ship takeoff.
 - (iii) Wheel takeoff.
 - (iv) Approach and landing.
 - (v) Go-around.
- (5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight.
 - (ii) Ascents and descents.
 - (iii) Level turns.
 - (iv) In-flight weigh-off.
 - (v) Manual pressure control.
 - (vi) Static and dynamic trim.
- (6) Ground reference manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Rectangular course.
 - (ii) Turns around a point.
- (7) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (8) Pilotage and dead reckoning.
 - (i) Navigation systems and radar services.
 - (ii) Diversion.
 - (iii) Lost procedures.

- (9) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Engine fire during flight.
 - (ii) Envelope emergencies.
 - (iii) Free ballooning.
 - (iv) Ditching and emergency landing.
 - (v) Systems and equipment malfunctions.
- (10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Masting.
 - (ii) Post-masting.

IS 2.3.4.6. PPL Skill Test—Balloon Category.

- (a) The skill test for the private pilot licence balloon category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Preflight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Certificates and documents.
 - (ii) Weather information.
 - (iii) Flight planning.
 - (iv) National airspace system.
 - (v) Performance and limitations.
 - (vi) Operation of systems.
 - (vii) Aeromedical factors.
- (2) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Launch site selection.
 - (ii) Crew briefing and preparation.
 - (iii) Layout and assembly.
 - (iv) Preflight inspection.
 - (v) Inflation.
 - (vi) Basket/gondola management.
 - (vii) Pre-launch check.

- (3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
- (4) Launches and landing, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal launch.
 - (ii) Launch over obstacle.
 - (iii) Approach to landing.
 - (iv) Normal landing.
 - (*v*) High-wind landing.
- (5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Ascents.
 - (ii) Altitude control (level flight).
 - (iii) Descents, to include recognition of, and recovery from, rapid descents
 - (iv) Contour flying.
 - (v) Obstacle clearance.
 - (vi) Tethering.
 - (vii) Winter flying.
 - (viii) Collision and avoidance pre-cautions
 - (ix) Mountain flying.
- (6) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Navigation, to include cross country flying and dead reckoning, etc.
- (7) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Systems and equipment malfunctions.
 - (ii) Emergency equipment and survival gear.
 - (iii) Water landing.
 - (iv) Thermal flight.
- (8) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Recovery.
 - (ii) Deflation and packing.

(iii) Refuelling.

IS 2.3.4.7. PPL Skill Test—Glider Category.

- (a) The skill test for the private pilot licence—glider category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Preflight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Operation of systems.
 - (iv) Performance and limitations.
 - (v) Aeromedical factors.
- (2) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Assembly.
 - (ii) Ground handling.
 - (iii) Preflight inspection.
 - (iv) Cockpit management.
 - (v) Visual signals.
- (3) Aerodrome and gliderport operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications.
 - (ii) Traffic patterns.
 - (iii) Aerodrome, runway, and taxiway signs, markings, and lighting.
- (4) Launches—aero tow, including the applicant's knowledge and performance of the following tasks :
 - (i) Before takeoff checks.
 - (ii) Normal and crosswind takeoff.
 - (iii) Maintaining tow positions.
 - (iv) Slack line.
 - (v) Boxing the wake.
 - (vi) Tow release.
 - (vii) Abnormal occurrences.

- (5) Launches– ground tow, including the applicant's knowledge and performance of the following tasks—
 - (i) Before takeoff check.
 - (ii) Normal and crosswind takeoff.
 - (iii) Abnormal occurrences.
- (6) Launches— self-launch, including the applicant's knowledge and performance of the following tasks—
 - (i) Engine starting.
 - (ii) Taxiing.
 - (iii) Before takeoff check.
 - (iv) Normal and crosswind takeoff and climb.
 - (v) Engine shutdown in flight.
 - (vi) Abnormal occurrences.
- (7) Landings, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and cross wind landing.
 - (ii) Slips to landing.
 - (iii) Downwind landing.
- (8) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—
 - (i) Minimum sink airspeed.
 - (ii) Speed-to-fly.
- (9) Soaring techniques, including the applicant's knowledge and performance of the following tasks—
 - (i) Thermal soaring.
 - (ii) Ridge and slope soaring.
 - (iii) Wave soaring.
- (10) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Straight glides.
 - (ii) Turns to headings.
 - (iii) Steep turns.

- (11) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Flight preparation and planning.
 - (ii) National airspace system.
- (12) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring at minimum control airspeed.
 - (ii) Stall recognition and recovery.
- (13) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Simulated off-airport landing.
 - (ii) Emergency equipment and survival gear.
- (14) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) After-landing and securing.

IS 2.3.5.2. CPL Skill Test—Aeroplane Category.

- (a) The skill test for the single-engine and multi-engine commercial pilot licence aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- *Note* 1 : When (SE) is indicated, the item or paragraph is only for single-engine; when (ME) is indicated, the item or paragraph is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.
- *Note* 2 : When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.
- (1) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Airworthiness requirements.
 - (iii) Weather information.
 - (iv) Cross-country flight planning.
 - (v) National airspace system.
 - (vi) Performance and limitations.
 - (vii) Operation of system.

- (viii) Principles of flight (ME).
- (ix) Water and Seaplane characteristics (S).
- (x) Seaplane bases, maritime rules and aids to marine navigation (S).
- (xi) Aeromedical factors.
- (2) Preflight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine Starting.
 - (iv) Taxiing (L).
 - (v) Taxiing and sailing (S).
 - (vi) Before takeoff check.
- (3) Aerodrome and seaplane base operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.
- (iii) Aerodrome/Seaplane base, runway and taxiway signs, markings and lighting.
- (4) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind takeoff and climb.
 - (ii) Normal and crosswind approach and landing.
 - (iii) Soft-field takeoff and climb (SE).
 - (iv) Soft-field approach and landing (SE).
 - (v) Short-field (Confined area (S)) takeoff and maximum performance climb.
 - (vi) Short-field (Confined area (S)) approach and landing.
 - (vii) Glassy water takeoff and climb (S).
 - (viii) Glassy water approach and landing (S).
 - (ix) Rough water takeoff and climb (S).
 - (x) Rough water approach and landing (S).
 - (xi) Power-off 180 degrees accuracy approach and landing (SE).
 - (xii) Go-around /rejected landing.

- (5) Performance manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Steep turns.
 - (ii) Steep spiral (SE).
 - (iii) Chandelles (SE).
 - (iv) Lazy eights (SE).
- (6) Ground reference manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Eights on pylons (SE).
- (7) Navigation; including the applicant's knowledge and performance of the following tasks—
 - (i) Pilotage and dead reckoning.
 - (ii) Navigation systems and radar services.
 - (iii) Diversion.
 - (iv) Lost procedures
- (8) Slow flight and stalls; including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring during slow flight.
 - (ii) Power-off stalls.
 - (iii) Power-on stalls.
 - (iv) Spin awareness.
- (9) Emergency operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Emergency approach and landing.
 - (ii) Emergency descent (ME).
 - (iii) Engine failure during takeoff before VMC (simulated) (ME).
 - (iv) Engine failure after lift-off (simulated) (ME).
 - (v) Approach and landing with an inoperative engine (simulated) (ME).
 - (vi) Systems and equipment malfunctions.
 - (vii) Emergency equipment and survival gear.
- (10) High altitude operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Supplemental oxygen.
 - (ii) Pressurisation.

- (11) Multi-engine operations (ME) ; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Manoeuvring with one engine inoperative.
 - (ii) VMC demonstration.
 - (iii) Engine failure during flight (by reference to instruments.
- (iv) Instrument approach one engine inoperative (by reference to instruments).
- (12) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) After landing, parking and securing.
 - (ii) Anchoring (S).
 - (iii) Docking and mooring (S).
 - (iv) Ramping/beaching (S).
- **IS 2.3.5.3.**—(a) The skill test for the commercial pilot licence helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks :

CPL Skill
Test—
Helicopter
Category.

- (1) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Cross-country flight planning.
 - (iv) National airspace system.
 - (v) Performance and limitations.
 - (vi) Operation of system.
 - (vii) Minimum equipment list.
 - (viii) Aeromedical factors.
 - (ix) Physiological aspects of night flying.
 - (x) Lighting and equipment for night flying.
- (2) Preflight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine Starting and rotor engagement.
 - (iv) Before takeoff check.

- (3) Aerodrome and heliport operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.
 - (iii) Aerodrome and heliport markings and lighting.
- (4) Hovering manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Vertical takeoff and landing.
 - (ii) Slope operations.
 - (iii) Surface taxi.
 - (iv) Hover taxi.
 - (v) Air taxi.
- (5) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind takeoff and climb.
 - (ii) Normal and crosswind approach and landing.
 - (iii) Maximum performance takeoff and climb.
 - (iv) Steep approach.
 - (v) Rolling takeoff.
 - (vi) Shallow approach and running/roll-on landing.
 - (vii) Go-around.
- (6) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks—
 - (i) Rapid deceleration.
 - (ii) 180 Degrees autorotation.
- (7) Navigation; including the applicant's knowledge and performance of the following tasks—
 - (i) Pilotage and dead reckoning.
 - (ii) Radio navigation and radar services.
 - (iii) Diversion.
 - (iv) Lost procedures.
- (8) Emergency operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Power failure at a hover.
 - (ii) Power failure at altitude.

- (iii) Systems and equipment malfunctions.
- (iv) Settling-with-power.
- (v) Low rotor RPM recovery.
- (vi) Dynamic rollover.
- (vii) Ground resonance.
- (viii) Low G conditions.
- (ix) Emergency equipment and survival gear.
- (9) Special operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Confined area operation.
 - (ii) Pinnacle/platform operations.
- (10) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) After landing, parking and securing.

IS 2.3.5.4.—(*a*) Reserved.

CPL Skill Test— Powered-Lift Category.

- **IS 2.3.5.5.**—(a) The skill test for the commercial pilot licence airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- CPL Skill
 Test—
 Airship
 Category.
- (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) Preflight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.

- (ii) Weather information.
- (iii) Cross-country flight planning.
- (iv) Performance and limitations.
- (v) Operations of systems.
- (3) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvre lesson.
- (4) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine starting.
 - (iv) Unmasting and positioning for take-off.
 - (v) Ground handling.
 - (vi) Before tak-eoff 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 take-off.
 - (ii) Engine failure during take-off.
 - (iii) Engine failure during flight.
 - (iv) Engine fire during flight.
 - (v) Envelope emergencies.
 - (vi) Free ballooning.
 - (vii) Ditching and emergency landing.
 - (viii) Systems and equipment malfunctions.
- (9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Masting.
 - (ii) Post-masting.

CPL Skill

IS 2.3.5.6.—(a) The 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:

Test— Balloon Category.

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) Preflight 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) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvre lesson.
- (4) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Launch site selection.
 - (ii) Crew briefing and preparation.
 - (iii) Layout and assembly.
 - (iv) Preflight inspection.
 - (v) Inflation.
 - (vi) Basket/gondola management.
 - (vii) Pre-launch check.
- (5) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications.
- (6) Launches and landings, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal launch.
 - (ii) Launch over obstacle.
 - (iii) Approach to landing.
 - (iv) Steep approach to landing.
 - (v) Normal landing.
 - (vi) High-wind landing.
- (7) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Ascents.
 - (ii) Altitude control (level flight).
 - (iii) Descents.
 - (iv) Rapid ascent and descent.
 - (v) Contour flying (BH).
 - (vi) High altitude flight. (BG)
 - (vii) Obstacle avoidance (BH).

- (viii) Tethering (BH).
- (ix) Winter flying.
- (x) Mountain flying.
- (8) Navigation, including the applicant's knowledge and performance of the following tasks-
 - (i) Navigation.
- (9) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Systems and equipment malfunctions.
 - (ii) Emergency equipment and survival gear.
 - (iii) Water landing.
 - (iv) Thermal flight.
- (10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Recovery.
 - (ii) Deflation and pack-up.
 - (iii) Refueling (BH).
- **IS 2.3.5.7.**—(a) The skill test for the commercial pilot licence glider CPL Skill category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Test-glider Category.

- (1) Preflight preparation, including the applicant's knowledge and perfor mance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Operation of systems.
 - (iv) Performance and limitations.
 - (v) Aeromedical factors.
- (2) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Assembly.
 - (ii) Ground handling.
 - (iii) Preflight inspection.
 - (iv) Cockpit management.
 - (v) Visual signals.

- (3) Aerodrome and gliderport operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications.
 - (ii) Traffic patterns.
 - (iii) Aerodrome, runway, and taxiway signs, markings, and lighting.
- (4) Launches- aero tow, including the applicant's knowledge and performance of the following tasks—
 - (i) Before take-off checks.
 - (ii) Normal and crosswind take-off.
 - (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 take-off check.
 - (ii) Normal and crosswind take-off.
 - (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 take-off check.
 - (iv) Normal and crosswind take-off and climb.
 - (v) Engine shutdown in flight.
 - (vi) Abnormal occurrences.
- (7) Landings, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and cross wind landing.
 - (ii) Slips to landing.
 - (iii) Downwind landing.

- (8) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—
 - (i) Minimum sink airspeed.
 - (ii) Speed-to-fly.
- (9) Soaring techniques, including the applicant's knowledge and performance of the following tasks—
 - (i) Thermal soaring.
 - (ii) Ridge and slope soaring.
 - (iii) Wave soaring.
- (10) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Straight glides.
 - (ii) Turns to headings.
 - (iii) Steep turns.
- (11) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Flight preparation and planning.
 - (ii) National airspace system.
- (12) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring at minimum control airspeed.
 - (ii) Stall recognition and recovery.
- (13) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Simulated off-aerodrome landing.
 - (ii) Emergency equipment and survival gear.
- (14) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) After-landing and securing.
 - **IS 2.3.6.2.**—(a) The skill test for the multi-crew pilot licence shall determine that the applicant, as pilot flying and pilot not flying, possesses the required skills in the following competency areas to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with at least two pilots under VFR and IFR:

Multi-Crew Pilot Licence Skill Test-Aeroplane Category.

B 1160

- (1) Apply threat and error management principles;
- (2) Perform aeroplane ground operations;
- (3) Perform take-off;
- (4) Perform climb;
- (5) Perform cruise;
- (6) Perform descent;
- (7) Perform approach;
- (8) Perform landing; and perform after-landing and aeroplane post-flight operations.

ATPL and Aircraft Type Rating Skill Test-Aeroplane Category.

- **IS 2.3.7.3.**—(*a*) The skill test for the airline transport pilot licence-aeroplanes shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Equipment examination.
 - (ii) Performance and limitations.
- (2) Preflight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Powerplant start.
 - (iii)Taxiing.
 - (iv) Before takeoff checks.
- (3) Takeoffs and departure phase; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal takeoffs with different flap settings, including expedited takeoff.
 - (ii) Instrument takeoff.
 - (iii) Powerplant failure during takeoff.
 - (iv) Rejected takeoff.
 - (v) Departure procedures.
- (4) In-flight manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Steep turns.

- (ii) Approach to stalls.
- (iii) Powerplant failure.
- (iv) Specific flight characteristics.
- (v) Recovery from unusual altitudes.
- (5) Instrument procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Standard terminal arrival/flight management system procedures.
 - (ii) Holding procedures.
 - (iii) Precision instrument approaches.
 - (iv) Non-precision instrument approaches.
 - (v) Circling approach.
 - (vi) Missed approach.
- (6) Landings and approaches to landings; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind approaches and landings.
 - (ii) Landing from a precision approach.
 - (iii) Approach and landing with (simulated) powerplant failure.
 - (iv) Landing from a circling approach.
 - (v) Rejected landing.
 - (vi) Landing from a no-flap or a non-standard flap approach.
 - (vii) Normal and abnormal procedures.
 - (viii) Emergency procedures.
- (7) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) After landing procedures.
 - (ii) Parking and securing.
- **IS 2.3.7.4.**—(a) The skill test for the airline transport pilot licence for helicopters shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

ATPL and Aircraft Type Rating Skill Test-Helicopter Category.

- (1) Preflight preparations and checks; including the applicant's knowledge and performance of the following tasks—
 - (i) Equipment examination.
 - (ii) Performance and limitations.

- (2) Preflight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Powerplant start.
 - (iii) Taxiing.
 - (iv) Pre-takeoff checks.
- (3) Takeoff and departure phase ; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind take-off.
 - (ii) Instrument takeoff.
 - (iii) Powerplant failure during take-off.
 - (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.

- $\left(7\right)$ 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) Post-flight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) After landing procedures.
 - (ii) Parking and securing.

IS 2.3.7.5.—(*a*) Reserved.

ATPL and Aircraft Type Rating Skill Test-Powered-Lift Category.

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

Instrument Rating Skill Test and Proficiency Check.

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

- (1) Preflight preparation ; including the applicant's knowledge and performance of the following tasks—
 - (i) Weather information.
 - (ii) Cross-country flight planning.
- (2) Preflight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Aircraft systems related to IFR operations.
 - (ii) Aircraft flight instruments and navigation equipment.
 - (iii) Instrument cockpit check.
- (3) Air traffic control clearances and procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Air traffic control clearances.
 - (ii) Compliance with departure, en route and arrival procedures and clearances.
 - (iii) Holding procedures.

- (4) Flight by reference to instruments; including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight.
 - (ii) Change of airspeed.
 - (iii) Constant airspeed climbs and descents.
 - (iv) Rate climbs and descents.
 - (v) Timed turns to magnetic compass headings.
 - (vi) Steep turns.
 - (vii) Recovery from unusual flight attitudes.
- (5) Navigation systems; including the applicant's knowledge and performance of the following tasks-
 - (i) Intercepting and tracking navigational systems and DME Arcs.
- (ii) Instrument approach procedures; including the applicant's knowledge and performance of the following tasks—
 - (iii) Non-precision instrument approach.
 - (iv) Precision ILS instrument approach.
 - (v) Missed approach.
 - (vi) Circling approach.
 - (vii) Landing from a straight-in or circling approach.
- (6) Emergency operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Loss of communications.
 - (ii) One engine inoperative during straight-and-level flight and turns (ME).
 - (iii) One engine inoperative instrument approach (ME).
 - (iv) Loss of gyro attitude and/or heading indicators.
- (7) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-
 - (i) Checking instruments and equipment.

IS 2.3.9.2. —(a) Aeroplane Category: The skill test and proficiency check for the flight instructor rating-aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category and class of aircraft:

Flight Instructor Skill Test and Proficiency Check.

- *Note* 1 : When (SE) is indicated the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item or paragraph is for single-engine and multi-engine.
- Note 2: When (S) is indicated, the item is only for seaplanes, when (L) is indicated, the item is only for landplanes. When nothing is indicated, the item is for land and seaplanes.
- (1) Fundamentals of instruction; including the applicant's knowledge and performance of the following tasks—
 - (ii) The learning process.
 - (iii) The teaching process.
 - (iv) Teaching methods.
 - (v) Evaluation.
 - (vi) Flight instructor characteristics and responsibilities.
 - (vii) Human factors.
 - (viii) Planning instructional activity.
- (2) Technical subject areas; including the applicant's knowledge and performance of the following tasks—
 - (i) Aeromedical factors.
 - (ii) Visual Scanning and collision avoidance.
 - (iii) Principles of flight.
 - (iv) Aeroplane flight controls.
 - (v) Aeroplane weight and balance.
 - (vi) Navigation and flight planning.
 - (vii) Night operations.
 - (viii) High altitude operations.
 - (ix) Regulations and publications.
 - (x) Use of minimum equipment list.
 - (xi) National airspace system.
 - (xii) Navigation aids and radar services.
 - (xiii) Logbook entries and licence endorsements.
 - (xiv) Water and seaplane characteristics (S).
 - (xv) Seaplane bases, rules and aids to marine navigation (S).

- (3) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Operation of systems (SE).
 - (iv) Performance and limitations (SE).
 - (v) Airworthiness requirements.
- (4) Preflight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task—
 - (i) Manoeuvre lesson.
- (5) Preflight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine starting.
 - (iv) Taxiing (L).
 - (v) Taxiing (S).
 - (vi) Sailing (S).
 - (vii) Before takeoff check.
- (6) Aerodrome and seaplane base operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.
 - (iii) Aerodrome and runway markings and lighting.
- (7) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind takeoff and climb.
 - (ii) Short field (Confined area (S) takeoff and maximum performance climb.
 - (iii) Soft field takeoff and climb (SE).
 - (iv) Glossy water takeoff and climb (S).
 - (v) Rough water takeoff and climb (S).
 - (vi) Normal and crosswind approach and landing.
 - (vii) Slip to a landing (SE).
 - (viii) Go-around/rejected landing.

- (ix) Short field (Confined area (S)) approach and landing.
- (x) Soft field approach and landing (SEL).
- (xi) Power-off 180 degrees accuracy approach and landing (SEL).
- (xii) Glassy water approach and landing (S).
- (xiii) Rough water approach and landing (S).
- (8) Fundamentals of flight; including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight.
 - (ii)Level turns.
 - (iii) Straight climbs and climbing turns.
 - (iv) Straight descents and descending turns.
- (9) Performance manoeuvres ; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Steep turns.
 - (ii) Steep spirals (SE).
 - (iii) Chandelles (SE).
 - (iv) Lazy eights (SE).
- (10) Ground reference manoeuvres ; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Rectangular course.
 - (ii) S-turns across a road.
 - (iii) Turns around a point.
 - (iv) Eights on pylons (SE).
- (11) Slow flight, stalls and spins; including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring during slow flight.
 - (ii) Power-on stalls (proficiency).
 - (iii) Power-off stalls (proficiency).
 - (iv) Crossed-control stalls (demonstration) (SE).
 - (v) Elevator trim stalls (demonstration) (SE).
 - (vi) Secondary stalls (demonstration) (SE).
 - (vii) Spins (SEL).

- (12) Basic instrument manoeuvres ; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Straight-and-level flight.
 - (ii) Constant airspeed climbs.
 - (iii) Constant airspeed descents.
 - (iv) Turns to headings.
 - (v) Recovery from unusual flight attitudes.
- (13) Emergency operations (SE); including the applicant's knowledge and performance of the following tasks—
 - (i) Emergency approach and landing (simulated).
 - (ii) Systems and equipment malfunctions.
 - (iii) Emergency equipment and survival gear.
- (14) Emergency operations (ME) ; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Systems and equipment malfunctions.
 - (ii) Engine failure during takeoff before VMC.
 - (iii) Engine failure after lift-off.
 - (iv) Approach and landing with an inoperative engine.
 - (v) Emergency descent.
 - (vi) Emergency equipment and survival gear.
- $(15)\,Multi-engine$ operations (ME) ; including the applicant's knowledge and performance of the following tasks—
 - (i) Operation of systems.
 - (ii) Performance and limitations.
 - (iii) Flight principles engine inoperative.
 - (iv) Manoeuvring with one engine inoperative.
 - (v) VMC demonstration.
- (vi) Demonstrating the effects of various airspeeds and configurations during engine inoperative performance.
- (16) Post-flight procedures ; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) Post-flight procedures.
 - (ii) Anchoring (S).
 - (iii) Docking and mooring (S).
 - (iv) Beaching (S).

- (v) Ramping (S).
- (b) Helicopter Category: The skill test and proficiency check for the flight instructor rating helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable, class or type, of aircraft:
- (1) Fundamentals of instruction; including the applicant's knowledge and performance of the following tasks—
 - (i) The learning process.
 - (ii) The teaching process.
 - (iii) Teaching methods.
 - (iv) Evaluation.
 - (v) Flight instructor characteristics and responsibilities.
 - (vi) Human factors.
 - (vii) Planning instructional activity.
- (2) Technical subject areas ; including the applicant's knowledge and performance of the following tasks—
 - (i) Aeromedical factors.
 - (ii) Visual Scanning and collision avoidance.
 - (iii) Use of distractions during flight training.
 - (iv) Principles of flight.
 - (v) Helicopter flight controls.
 - (vi) Helicopter weight and balance.
 - (vii) Navigation and flight planning.
 - (viii) Night operations.
 - (ix) Regulations and publications.
 - (x) Use of minimum equipment list.
 - (xi) National airspace system.
 - (xii) Logbook entries and licence endorsements.
- (3) Preflight preparation including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Operation of systems.
 - (iv) Performance and limitations.
 - (v) Airworthiness requirements.

- (4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and performance of the following task—
 - (i) Manoeuvre lesson.
- (5) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine starting and rotor engagement.
 - (iv) Before takeoff check.
- (6) Aerodrome operations and Heliport operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications and ATC light signals.
 - (ii) Traffic patterns.
 - (iii) Aerodrome and Heliport Markings and lighting.
- (7) Hovering Manoeuvres. including the applicant's knowledge and performance of the following tasks—
 - (i) Vertical takeoff and landing.
 - (ii) Surface taxi.
 - (iii) Hover taxi.
 - (iv) Air taxi.
 - (v) Slope operation.
- (8) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and crosswind takeoff and climb.
 - (ii) Maximum performance takeoff and climb.
 - (iii) Rolling takeoff.
 - (iv) Normal and crosswind approach.
 - (v) Steep approach.
 - (vi) Shallow approach and running/roll-on landing.
 - (vii) Go-around.
- (9) Fundamentals of flight; including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight.
 - (ii) Level turns.

- (iii) Straight climbs and climbing turns.
- (iv) Straight descents and descending turns.
- (10) Performance manoeuvres; including the applicant's knowledge and performance of the following tasks—
 - (i) Rapid deceleration.
 - (ii) Straight-in autorotation.
 - (iii) 180 degrees autorotation.
- (11) Emergency operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Power failure at a hover.
 - (ii) Power failure at altitude.
 - (iii) Settling-with-power.
 - (iv) Low rotor RPM recovery.
 - (v) Antitorque system failure.
 - (vi) Dynamic rollover.
 - (vii) Ground resonance.
 - (viii) Low "G" conditions.
 - (ix) Systems and equipment malfunctions.
 - (x) Emergency equipment and survival gear.
- (12) Special operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Confined area operation.
 - (ii) Pinnacle/platform operation.
- (13) Post-flight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) After-landing and securing.
 - (c) Powered-lift Category.
 - (1) Reserved.
 - (d) Airship Category: The skill test and proficiency check for the flight instructor rating-airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:
- (1) Fundamentals of instruction; including the applicant's knowledge and performance of the following tasks-

- (i) The learning process.
- (ii) The teaching process.
- (iii) Teaching methods.
- (iv) Evaluation.
- (v) Flight instructor characteristics and responsibilities.
- (vi) Human factors.
- (vii) Planning instructional activity.
- (2) Technical subject areas ; including the applicant's knowledge and performance of the following tasks—
 - (i) Aeromedical factors.
 - (ii) Visual Scanning and collision avoidance.
 - (iii) Use of distractions during flight training.
 - (iv) Principles of flight.
 - (v) Airship weight-off, ballast, and trim.
 - (vi) Night operations.
 - (vii) Regulations and publications.
 - (viii) National airspace system.
 - (ix) Logbook entries and licence endorsement.
- (3) Preflight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Cross-country flight planning.
 - (iv) Performance and limitations.
 - (v) Operations of systems.
- (4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's and performance of the following tasks—
 - (i) Manoeuvre lesson.
- (5) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection.
 - (ii) Cockpit management.
 - (iii) Engine starting.
 - (iv) Unmasting and positioning for takeoff.

- (v) Ground handling.
- (vi) Before takeoff check.
- (6) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications.
 - (ii) Traffic pattern operations.
 - (iii) Aerodrome, runway and taxiway markings and lighting.
- (7) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Flight to, from, and at pressure height.
 - (ii) In-flight weigh-off.
 - (iii) Manual pressure control.
 - (iv) Static and dynamic trim.
- (8) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (i) Pilotage and dead reckoning.
 - (ii) Diversion.
 - (iii) Lost procedures.
 - (iv) Navigation systems and air traffic control radar services.
- (9) Basic instrument manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and level flight.
 - (ii) Constant airspeed climbs.
 - (iii) Constant airspeed descents.
 - (iv) Turns to headings.
 - (v) Recovery from unusual flight attitudes.
- (10) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Aborted takeoff.
 - (ii) Engine failure during takeoff.
 - (iii) Engine failure during flight.
 - (iv) Engine fire during flight.
 - (v) Envelope emergencies.
 - (vi) Free ballooning.

- (vii) Ditching and emergency landing.
- (viii) Systems and equipment malfunctions.
- (11) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Masting.
 - (ii) Post-masting.
 - (e) Balloon Category: The skill test and proficiency check for the flight instructor rating with balloon instructor rating shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category and class of aircraft:

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

- (1) Fundamentals of instruction ; including the applicant's knowledge and performance of the following tasks—
 - (i) The learning process.
 - (ii) The teaching process.
 - (iii) Teaching methods.
 - (iv) Evaluation.
 - (v) Flight instructor characteristics and responsibilities.
 - (vi) Human factors.
 - (vii) Planning instructional activity.
- (2) Technical subject areas ; including the applicant's knowledge and performance of the following tasks—
 - (i) Aeromedical factors.
 - (ii) Visual Scanning and collision avoidance.
 - (iii) Use of distractions during flight training.
 - (iv) Principles of flight.
 - (v) Regulations and publications.
 - (vi) National airspace system.
 - (vii) Logbook entries and licence endorsement.
- (3) Preflight preparation, including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Cross-country flight planning.

- (iv) Performance and limitations.
- (v) Operations of systems.
- (4) Preflight lesson on a manoeuvre to be performed in flight, including the applicant's and performance of the following tasks—
 - (i) Manoeuvre lesson.
- (5) Preflight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Launch site selection.
 - (ii) Crew briefing and preparation.
 - (iii) Layout and assembly.
 - (iv) Preflight inspection.
 - (v) Inflation.
 - (vi) Basket/gondola management.
 - (vii) Pre-launch check.
- (6) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications.
- (7) Launches and landings, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal launch.
 - (ii) Launch over obstacle.
 - (iii) Approach to landing.
 - (iv) Steep approach to landing.
 - (v) Normal landing.
 - (vi) High-wind landing.
- (8) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Ascents.
 - (ii) Altitude control (level flight).
 - (iii) Descents.
 - (iv) Rapid ascent and descent.
 - (v) Contour flying (BH).
 - (vi) High altitude flight (BG).
 - (vii) Obstacle avoidance (BH).

- (viii) Tethering (BH).
- (ix) Winter flying.
- (x) Mountain flying.
- (xi) Navigation, including the applicant's knowledge and performance of the following tasks—
 - (A) Navigation.
- (9) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Systems and equipment malfunctions.
 - (ii) Emergency equipment and survival gear.
 - (iii) Water landing.
 - (iv) Thermal flight.
- (10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) Recovery.
 - (11) Deflation and pack-up.
 - (i) Refueling (BH).
 - (f) Glider Category: The skill test and proficiency check for the flight instructor rating glider shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft:
- (1) Fundamentals of instruction; including the applicant's knowledge and performance of the following tasks— $\,$
 - (i) The learning process.
 - (ii) The teaching process.
 - (iii) Teaching methods.
 - (iv) Evaluation.
 - (v) Flight instructor characteristics and responsibilities.
 - (vi) Human factors.
 - (vii) Planning instructional activity.
- (2) Technical subject areas; including the applicant's knowledge and performance of the following tasks—
 - (i) Aeromedical factors.
 - (ii) Visual Scanning and collision avoidance.
 - (iii) Use of distractions during flight training.

- (iv) Principles of flight.
- (v) Elevators, ailerons, and rudder.
- (vi) Trim, lift and drag devices.
- (vii) Glider weight and balance.
- (viii) Navigation and flight planning.
- (ix) Regulations and publications.
- (x) National airspace system.
- (xi) Logbook entries and licence endorsements.
- (3) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Licences and documents.
 - (ii) Weather information.
 - (iii) Operation of systems.
 - (iv) Performance and limitations.
- (4) Preflight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task—
 - (i) Manoeuvre lesson.
- (5) Preflight procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Assembly.
 - (ii) Ground handling.
 - (iii) Preflight inspection.
 - (iv) Cockpit management.
 - (v) Visual signals.
- (6)Aerodrome operations and gliderport operations; including the applicant's knowledge and performance of the following tasks—
 - (i) Radio communications.
 - (ii) Traffic patterns.
 - (iii) Aerodrome, runway, and taxiway signs, markings and lighting.
- (7) Launches- aero tow, including the applicant's knowledge and performance of the following tasks—
 - (i) Before takeoff checks.
 - (ii) Normal and crosswind takeoff.
 - (iii) Maintaining tow positions.
 - (iv) Slack line.
 - (v) Boxing the wake.
 - (vi) Tow release.
 - (vii) Abnormal occurrences.

- (8) Launches-ground tow (auto or winch), including the applicant's knowledge and performance of the following tasks—
 - (i) Before takeoff check.
 - (ii) Normal and crosswind takeoff.
 - (iii) Abnormal occurrences.
- (9) Launches- self-launch, including the applicant's knowledge and performance of the following tasks—
 - (i) Engine starting.
 - (ii) Taxiing.
 - (iii) Before takeoff check.
 - (iv) Normal and crosswind takeoff and climb.
 - (v) Engine shutdown in flight.
 - (vi) Abnormal occurrences.
- (10) Landings, including the applicant's knowledge and performance of the following tasks—
 - (i) Normal and cross wind landing.
 - (ii) Slips to landing.
 - (iii) Downwind landing.
- (11) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks—
 - (i) Straight glides.
 - (ii) Turns to headings.
- (12) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—
 - (i) Minimum sink airspeed.
 - (ii) Speed-to-fly.
- (13) Soaring techniques, including the applicant's knowledge and performance of the following tasks—
 - (i) Thermal soaring.
 - (ii) Ridge and slope soaring.
 - (iii) Wave soaring.
- (14) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
 - (i) Steep turns
 - (ii) Recovery from a spiral dive.

- (15) Slow flight and stalls, including the applicant's knowledge and performance of the following tasks—
 - (i) Manoeuvring at minimum control airspeed.
 - (ii) Stall recognition and recovery.
 - (iii) Spins.
- (16) Emergency operations, including the applicant's knowledge and performance of the following tasks—
 - (i) Simulated off-aerodrome landing.
 - (ii) Emergency equipment and survival gear.
- (17) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
 - (i) After-landing and securing.
- (g) Flight Instructor for Instrument Ratings (A, H, and PL): The skill test and proficiency for the flight instructor for instrument ratings aeroplane, helicopter and powered-lift shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable class, of aircraft:
- *Note* 1 : When (SE) is indicated, the item or paragraph is only for single-engine, when (ME) is indicated the item or paragraphs is only for multi-engine. When nothing is indicated, the item and paragraph are for single-engine and multi-engine.
- *Note* 2: When (*A*) is indicated, the item or paragraph is only for Aeroplane. When (H) is indicated, the item or paragraph is only for Helicopter. When nothing is indicated, the item and the paragraph are for all categories.
- (1) Fundamentals of instructing ; including the applicant's knowledge and performance of the following tasks—
 - (i) The learning process.
 - (ii) Human behaviour and effective communication.
 - (iii) The teaching process.
 - (iv) Teaching methods.
 - (v) Critique and evaluation.
 - (vi) Flight instructor characteristics and responsibilities.
 - (vii) Planning instructional activity.
- (2) Technical subject areas ; including the applicant's knowledge and performance of the following tasks—
 - (i) Aircraft flight instruments and navigation equipment.

- (ii) Aeromedical factors.
- (iii) Regulations and publications related to IFR operations.
- (iv) Logbook entries related to instrument instruction.
- (3) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
 - (i) Weather information.
 - (ii) Cross-country flight planning.
 - (iii) Instrument cockpit check.
- (4) Preflight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task—
 - (i) Manoeuvre lesson.
- (5) Air traffic control clearances and procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Air traffic control clearances.
- (ii) Compliance with departure, en-route and arrival procedures and clearances.
- (6) Flight by reference to instruments; including the applicant's knowledge and performance of the following tasks—
 - (i) Straight-and-level flight.
 - (ii) Turns.
 - (iii) Change of airspeed in straight-and-level and turning flight.
 - (iv) Constant airspeed climbs and descents.
 - (v) Constant rate climbs and descents.
 - (vi) Timed turns to magnetic compass headings.
 - (vii) Steep turns.
 - (viii) Recovery from unusual flight altitudes.
- (7) Navigation systems; including the applicant's knowledge and performance of the following tasks—
 - (i) Intercepting and tracking navigational systems and DME Arcs.
 - (ii) Holding procedures.
- (8) Instrument approach procedures; including the applicant's knowledge and performance of the following tasks—
 - (i) Non-precision instrument approach.
 - (ii) Precision instrument approach.

- (iii) Missed approach.
- (iv) Circling approach (A).
- (v) Landing from a straight-in approach.
- (9) Emergency operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Loss of communications.
 - (ii) Loss of gyro attitude and heading indicators.
 - (iii) Engine failure during straight-and-level flight and turns.
 - (iv) Instrument approach one engine inoperative.
- (10) Post-flight procedures ; including the applicant's knowledge and performance of the following task—
 - (i) Checking instruments and equipment.
 - (h) Flight Instructor for Additional Type Ratings: The skill test and proficiency checks for instructors for additional type ratings-aeroplane and helicopter shall include at least the following areas of operation:

Note: When (*A*) is indicated, the item or paragraph is only for Aeroplane. When (H) is indicated, the item or paragraph is only for Helicopter. When nothing is indicated, the item and the paragraph are for A and H.

- (1) Technical subject areas.
- (i) The content of the technical subject areas shall cover the areas as applicable to the aircraft class or type.
- (ii) Flight simulator; including the applicant's knowledge and performance of the following tasks—
 - (a) Use of checklist, setting of radios/navigation aids.
 - (b) Starting engines.
 - (c) Takeoff checks.
 - (d) Instrument takeoff, transition to instruments after lift off.
 - (e) Engine failure during take-off between V1 and V2 (Aeroplane).
 - (f) Aborted takeoff prior to reaching V1 (A).
 - (g) High mach buffeting, specific flight characteristics (if necessary) (A).
 - (h) Takeoff with engine failure prior to TDP or DPATO or shortly after TDP or DPATO (Helicopter).
 - (i) Steep turns.
 - (*j*) Recovery from approach to stall/takeoff, clean landing configuration (Aeroplane).

- (*k*) Instrument approach to required minimum decision height or minimum descent height/altitude, manual one engine simulated inoperative during approach and landing or go-around (Aeroplane).
- (*l*) Instrument approach to required minimum decision height or minimum descent height/altitude, autopilot one engine simulated inoperative during approach and landing or go-around (Helicopter).
 - (m) Rejected landing and go-around.
 - (n) Crosswind landing.
- (*iii*) Category II and II operations, if applicable; including the applicant's knowledge and performance of the following tasks—
 - (a) Precision approaches, automatic with auto-throttle and flight director go-around caused by aircraft or ground equipment deficiencies.
 - (b) Go-around caused by weather conditions.
 - (c) Go-around at DH caused by offset position from 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) Takeoff.
 - (e) Engine failure during takeoff short after V2, after reaching climb out attitude (Aeroplane).
 - (f) Engine failure during takeoff short after TDP or DPATO after reaching climb out attitude (Helicopter).
 - (g) Other emergency procedures (if necessary).
 - (h) Instrument approaches to required minimum decision height, manual one engine out during approach and landing or go-around.
 - (i) One engine simulated inoperative go-around from required minimum decision height.
 - (j) One engine (critical) simulated inoperative landing.

IS 2.3.10.1.—(*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.

Skill Test for Designated Pilot Examiners

- (b) Methods of skill testing. The Authority inspector will choose one of the following methods to test an examiner pilot applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.
- (1) Authority inspector evaluates the pilot examiner applicant testing an actual pilot applicant for a licence or rating.
 - (i) The Authority will arrange for the pilot examiner applicant to conduct a skill test for an actual pilot applicant for a licence or rating appropriate to the examiner designation sought, and the Authority inspector will observe the test from within the aircraft.
 - (ii) The Authority inspector will evaluate the pilot examiner applicant's performance while the pilot examiner applicant evaluates the pilot applicant.
 - (*iii*) Any discussion between the pilot examiner applicant and the Authority inspector concerning the pilot examiner applicant's performance with the pilot applicant will be held in private.
 - (iv) At the conclusion of the skill test for the actual pilot licence or rating:
 - (A) If the applicant has passed the skill test, the pilot examiner applicant will fill out the appropriate documentation for the pilot applicant while the Authority inspector observes. The Authority inspector will sign any documentation needed.
 - (*B*) If the pilot applicant does not pass the skill test, the Authority inspector will complete and sign the appropriate document needed.
 - (2) Authority inspector playing the role of pilot applicant for a skill test.
 - (*i*) The Authority inspector will play the role of a pilot applicant for a skill test appropriate to the type of designation the pilot examiner applicant is seeking.
 - (ii) If the Authority inspector answers a question incorrectly to test whether the pilot examiner applicant recognises an incorrect answer, the incorrect response must be obviously wrong.
 - (3) Authority inspector gives a flight skill test to the pilot examiner applicant.
 - (i) The Authority inspector will test the pilot examiner applicant on selected manoeuvres in order to assess the pilot examiner applicant's flight proficiency and ability to evaluate a pilot applicant in accordance with the appropriate skill test.
 - (ii) The Authority inspector will evaluate the pilot examiner applicant's plan of action for completeness and efficiency.

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Flight
Engineer:
Skill Test
and
Proficiency
Check.

- **IS 2.4.4.4.**—(a) The 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) Preflight preparation ; including the applicant's knowledge and performance of the following tasks—
 - (i) Equipment examination-systems knowledge.
 - (ii) Aircraft handbooks, manuals, minimum equipment list (MEL), configuration deviation list (CDL) and operations specifications.
 - (iii) Performance and limitations.
- (2) Preflight procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Preflight inspection and cockpit setup.
 - (ii) Preflight inspection-exterior.
- (3) Ground operations ; including the applicant's knowledge and performance of the following tasks—
 - (i) Powerplant start.
 - (ii) Taxi and pre-takeoff checks.
- (4) Normal procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Takeoff.
 - (ii) In-flight.
 - (iii) During approach and landing.
 - (iv) Engine systems monitoring.
- (5) Abnormal and emergency procedures ; including the applicant's knowledge and performance of the following tasks—
 - (i) Takeoff.
 - (ii) In-flight.
 - (iii) During approach and landing.
 - (iv) Engine systems monitoring.
 - (v) Postflight procedures.
 - (vi) After landing.
 - (vii) Parking and securing.

IS 2.4.6.2.—(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.

Skill Test for Designated Flight Engineer Examiners.

- (b) Methods of Skill Testing: The Authority inspector will choose one of the following methods to test a flight engineer examiner applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.
- (1) Authority inspector evaluates the flight engineer examiner applicant testing an actual flight engineer applicant for a licence and class rating or proficiency check.
 - (i) The Authority will arrange for the flight engineer examiner applicant to conduct a skill test for an actual flight engineer applicant for a licence or added rating or proficiency check appropriate to the examiner designation sought, and the Authority inspector will observe the test from within the aircraft or flight simulation training device as applicable.
 - (ii) The Authority inspector will evaluate the flight engineer examiner applicant's performance while the flight engineer examiner applicant evaluates the flight engineer applicant.
 - (*iii*) Any discussion between the flight engineer examiner applicant and the Authority inspector concerning the flight engineer examiner applicant's performance with the flight engineer applicant will be held in private.
 - (a) At the conclusion of the skill test for the actual flight engineer licence or added class rating or proficiency check:
 - (b) If the applicant has passed the skill test or proficiency check, the pilot examiner applicant will fill out the appropriate documentation for the flight engineer applicant while the Authority inspector observes. The Authority inspector will sign any documentation needed.
- (2) If the flight engineer applicant does not pass the skill test or proficiency check, the Authority inspector will complete and sign the appropriate document needed.
 - (i) Authority inspector playing the role of flight engineer applicant for a skill test.
 - (ii) The Authority inspector will play the role of a flight engineer applicant for a skill test appropriate to the class of designation the flight engineer examiner applicant is seeking.
 - (iii) If the Authority inspector answers a question incorrectly to test

whether the flight engineer examiner applicant recognises an incorrect answer, the incorrect response must be obviously wrong.

- (3) Authority inspector gives a flight skill test to the flight engineer examiner applicant.
 - (i) The Authority inspector will test the flight engineer examiner applicant on selected manoeuvres in order to assess the flight engineer examiner applicant's flight proficiency and ability to evaluate a flight engineer applicant in accordance with the appropriate skill test.
 - (ii) The Authority inspector will evaluate the flight engineer examiner applicant's plan of action for completeness and efficiency.

Knowledge Requirements for ATSEP Licence/ Ratings.

- **IS 2.5.3.6.**—(*a*) The applicant for a communications rating shall pass a knowledge test covering at least the following areas—
 - (i) Elements of Voice Communications;
 - (ii) Radio Waves;
 - (iii) Antenna Systems;
 - (iv) VHF Radio Transmitters;
 - (v) VHF Radio Receivers;
 - (vi) Controller Work Positions;
 - (vii) ATIS and VOLMET Service;
 - (viii) Air/Ground Voice Communications;
 - (ix) VHF/UHF transmission and HF Transmission;
 - (x) Emergency/ Backup Systems;
 - (xi) Aircraft Equipment/On Board systems;
 - (xii) Satellite Communications systems;
 - (xiii) Ground/Ground Voice communications;
 - (xiv) Telephone Switching/Interphone Switching/Hotline Switching;
 - (xv) ATN/Data Communications Network systems;
 - (xvi) Purpose and Use of Data Communication systems;
 - (xvii) Interface Systems;
 - (xviii) ACARS systems;
 - (xix) Purpose and use of Data Communications;
 - (xx) Data Communications in current use-PCM, E1 (DSI) framing,
 - T1, Multiplexing, de-multiplexing, LAN, WAN etc;
 - (xxi) Purpose and use of protocols;
 - (xxii) Network Management;

- (xxiii) ATC Specific Networks and applications;
- (xxiv) ATC Voice Recorders;
- (xxv) Troubleshooting.
- (b) The applicant for NAVAIDS rating shall pass a knowledge test covering at least the following areas:
 - (i) Principles and concept of VOR
 - (ii) Purpose and use of Navigation
 - (iii) System Coordinates/WGS-84
 - (iv) NDB/LB
 - (v) VOR/DVOR
 - (vi) ILS, MLS
 - (vii) DME
 - (viii) TACAN
 - (ix) Visual AIDS-VASIS, PAPI, Rotating Beacon
 - (x) Satellite Navigation
 - (xi) RNAV, RNP
 - (xii) Satellite Based Systems-GPS, GLONASS, GNSS, MTSAT, EGNOS
 - (xiii) Warning Systems-TCAS, GPWS
 - (xiv) ICAO recommendations, Annex10, Doc 8071
 - (xv) NAVAIDS Flight Inspections
 - (xvi) Troubleshooting
- (c) The applicant of SURVEILLANCE (and RADARS) ratings shall pass a knowledge test covering at least the following areas:
 - (i) Terminology and units of measurement
 - (ii) Purpose and use of Surveillance and RADAR systems
 - (iii) Primary RADAR
 - (iv) Secondary RADAR
 - (v) Weather Range
 - (vi) Precision Approach RADAR
 - (vii) Surface movement and control
 - (viii) RADAR message format
 - (ix) Transmission of Radar Data
 - (x) Mode S
 - (xi) ADS-B System

- (xii) Future Equipment
- (xiii) Radar Station
- (xiv) Networks-Analogue/Digital, Digital/Analogue, PCM, BIT RATE, Bandwidth
 - (xv) Purpose and use of Data Communications
- (xvi) Data Communications in current use-PCM, E1 (DSI) framing, T1, Multiplexing, de-multiplexing, LAN, WAN etc.
 - (xvii) Purpose and use of protocols
 - (xviii) Network Management
 - (xix) ATC Specific Networks and application
 - (xx) System Soft and Hardware principles
 - (xxi) RADAR Data processing
 - (xxii) Warning systems
 - (xxiii) Flight Data Processing
 - (xxiv) Operational Display systems
 - (xxv) Human Machine Interface (HMI)
 - (xxvi) Troubleshooting
- (d) The applicant for Airfield Lighting/Visual Landing Aids Systems ratings shall pass a knowledge test covering at least the following areas—
 - (i) Purpose and use of Airfield Lighting/Visual Landing Navigational Aids systems
 - (ii) Airfield Landing Systems
 - (iii) Airfield Lighting Equipment
 - (iv) Approach Light
 - (v) Approach Slope Indicator
 - (vi) Airfield Runway and Taxiway fixtures
 - (vii) Obstruction Lights
 - (viii) Docking Systems
 - (ix) Illuminated Wing sleeves
 - (x) Frangibility of Visual Aids
 - (xi) Constant Current regulator
 - (xii) Control Systems
 - (xiii) Safety
 - (xiv) Airfield Light Cables
 - (xv) Test Equipment

- (xvi) Sign/Signage
- (xvii) Visual Landing Systems-PAPI, VASI, RVR and Rotation Beacons
 - (xviii) Standby Power systems
 - (xix) PAPI System Set-up/Calibrations
 - (xx) Troubleshooting
- **IS 2.5.3.8.**—(*a*) Each applicant for an Air Traffic Safety Electronics Personnel (ATSEP) licence or rating shall pass a skill test containing both oral questioning and practical application of skill appropriate to the rating(s) sought. The tests cover the applicant's skill in performing the practical projects on the subjects covered by the written test for that rating. The applicant will be provided with appropriate facilities, tools and materials.

Air Traffic Safety Electronics Personnel Licence Skill Requirements.

- (b) ATSEP General: The skill test for the ATSEP Licence shall test the applicant's knowledge and performance in at least the following areas of operation:
 - (1) Communication Systems
 - (i) Radio Waves
 - (ii) Antenna Systems
 - (iii) VHF Radio Transmitters
 - (iv) VHF Radio Receivers
 - (v) Controller Work Positions
 - (vi) ATIS and VOLMET Service
 - (vii) Air/Ground Voice Communications
 - (viii) VHF/UHF transmission and HF Transmission
 - (ix) Emergency/ Backup Systems
 - (x) Aircraft Equipment/On Board systems
 - (xi) Satellite Communications systems
 - (xii) Ground/Ground Voice communications
 - (xiii) Telephone Switching/Interphone Switching/Hotline Switching
 - (xiv) ATN/Data Communications Network systems
 - (xv) Purpose and Use of Data Communication systems
 - (xvi) Interface Systems
 - (xvii) ACARS systems
 - (xviii) Purpose and use of Data Communications
 - (xix) Data Communications in current use-PCM, E1 (DSI) framing, T1,

Multiplexing, de-multiplexing, LAN, WAN etc.

- (xx) Purpose and use of protocols
- (xxi) Network Management
- (xxii) ATC Specific Networks and applications
- (xxiii) ATC Voice Recorders
- (xxiv) Troubleshooting
- (2) NAVAIDS
- (i) Principles and concept of VOR
- (ii) Purpose and use of Navigation
- (iii) System Coordinates/WGS-84
- (iv) NDB/LB
- (v) VOR/DVOR
- (vi) ILS, MLS
- (vii) DME
- (viii) TACAN
- (ix) Visual AIDS-VASIS, PAPI, Rotating Beacon
- (x) Satellite Navigation
- (xi) RNAV, RNP
- (xii) Satellite Based Systems-GPS, GLONASS, GNSS, MTSAT, EGNOS
- (xiii) Warning Systems-TCAS, GPWS
- (xiv) ICAO recommendations, Annex10, Doc 8071
- (xv) NAVAIDS Flight Inspections
- (xvi) Troubleshooting
- (3) Surveillance Systems (RADAR)
- (i) Terminology and units of measurement
- (ii) Purpose and use of Surveillance and RADAR systems
- (iii) Primary RADAR
- (iv) Secondary RADAR
- (v) Weather Range
- (vi) Precision Approach RADAR
- (vii) Surface movement and control
- (viii) RADAR message format
- (ix) Transmission of Radar Data
- (x) Mode S

- (xi) ADS-B System
- (xii) Future Equipment
- (xiii) Radar Station
- (xiv) Networks-Analogue/Digital, Digital/Analogue, PCM, BIT RATE, Bandwidth
 - (xv) Purpose and use of Data Communications
- (*xvi*) Data Communications in current use-PCM, E1 (DSI) framing, T1, Multiplexing, de-multiplexing, LAN, WAN etc.
 - (xvii) Purpose and use of protocols
 - (xviii) Network Management
 - (xix) ATC Specific Networks and application
 - (xx) System Soft and Hardware principles
 - (xxi) RADAR Data processing
 - (xxii) Warning systems
 - (xxiii) Flight Data Processing
 - (xxiv) Operational Display systems
 - (xxv) Human Machine Interface (HMI)
 - (xxvi) Troubleshooting
 - (4) Airfield Lighting/Visual Landing Aids Systems
- (i) Purpose and use of Airfield Lighting/Visual Landing Navigational Aids systems
 - (ii) Airfield Landing Systems
 - (iii) Airfield Lighting Equipment
 - (iv) Approach Light
 - (v) Approach Slope Indicator
 - (vi) Airfield Runway and Taxiway fixtures
 - (vii) Obstruction Lights
 - (viii) Docking Systems
 - (ix) Illuminated Wing sleeves
 - (x) Frangibility of Visual Aids
 - (xi) Constant Current regulator
 - (xii) Control Systems
 - (xiii) Safety
 - (xiv) Airfield Light Cables
 - (xv) Test Equipment

(xvi) Sign/Signage

(xvii) Visual Landing Systems-PAPI, VASI, RVR and Rotation Beacons

(xviii) Standby Power systems

(xix) Troubleshooting

Ratings and Limitations Codes. **IS 2.6.2.3.** —(*a*) Airframe.

Code 1: Unpressurised Aeroplane

Code 2: Pressurised Aeroplane

Code 3: Rotorcraft

(b) Powerplant

Code 4 : Piston Engine

Code 5: Turbine Engine

(c) Avionics

Code 6: Aircraft Electrical Systems in which the main generation system output is DC including Alternator, having an individual power rating not exceeding 1.5KVA may be fitted only.

Code 7: Aircraft Electrical Systems in which the main generation system output is DC and which have installed 'frequency' wild alternators with an individual power ratings exceeding 1.5KVA for auxiliary services.

Code 8: Aircraft Electrical Systems in which the main generation system output is constant 'frequency' AC from generators driven by constant speed drive unit or variable speed constant frequency (VSCF) generation/converter systems, and DC power is supplied from transformer rectifier units.

Code 9 : General Aircraft Instrument Systems but excluding instruments installed on any aircraft which has installed in Flight Director System.

Code 10: Flight Director Systems employing air driven gyroscopes (attitude) including Smiths flight systems and Sperry Zero Reader ZL1, ZL2 Flight Director System.

Code 11: Flight Director Systems employing electrically driven gyroscopes (attitudes).

Code 12: Direct Reading Compasses

Code 13: Director and Remote Reading Compasses

Code 14: Non-Radio-Coupled Automatic Pilots (Aeroplane)

Code 15 : Radio-Coupled Automatic Pilots (Aeroplane) excluding ILS Coupled (LOC and GS). Automatic Pilots.

Code 16: ILS Coupled (LOC and GS) Automatic Pilots (Aeroplane).

- Code 17: Non-Radio Coupled Automatic Pilots (Rotorcraft)
- Code 18: Radio-Coupled Automatic Pilots (Rotorcraft)
- Code 19 : Airborne Communications Systems, Airborne Navigation Systems
 - Code 20: Airborne Radar Systems only.
 - **IS 2.6.2.7.** (e) Experience Requirements for an AME Type Rating.

Applicant for an AME type rating shall submit documentary evidence acceptable to the authority of practical experience in representative tasks of the following areas of aircraft maintenance:

- 1. General.
- (a) Ground handling:
- (i) Airframe and powerplant servicing
- (ii) Aircraft towing and taxing
- (iii) Aircraft lifting and weighing
- (iv) Aircraft parking, moring, storing and return to service.
- (b) Placards and Markings
- (c) Minimum Equipment List application
- 2. Airframe Systems

Aircraft (Aeroplane and helicopters)-all systems of ATA chapters 21 to 38; Rotorcraft specific chapters 18, 60, 62-67.

- (i) Removal and installation
- (ii) Functional and operational testing
- (iii) Troubleshooting and defect rectification
- (iv) Fuelling, oil, hydraulic and oxygen servicing
- 3. Rotorcraft Specific
- (i) Vibration and noise analysis
- (ii) Monitoring and indicating of rotors.
- 4. Powerplant Systems.
- (a) Piston engines- all systems of ATA chapters 70 to 84 and 60-61 (propellers):
 - (i) Removal and installation (including engine change)
 - (ii) Functional and operational testing (engine ground run and

performance check)

- (iii) Troubleshooting and defect rectification
- (iv) MEL application
- (b) Gas turbine engines systems- all systems of ATA chapters 70B to 84 including FADEC and ch. 49
 - (i) Removal and installation (including engine change)
 - (ii) Functional and operational testing (engine ground run and performance check)
 - (iii) Troubleshooting and defect rectification
 - (iv) MEL application
- 5. Avionics Systems. All systems covered in ATA chapters 22, 23, 24, 31, 34
 - (i) Removal and installation
 - (ii) Functional and operational testing
 - (iii) Troubleshooting and defect rectification

Aircraft Maintenance Engineer Skill Requirements.

- **IS 2.6.2.7.**—(a) Each applicant for an Aviation Maintenance Engineer (AME) licence or rating shall pass a skill test containing both oral questioning and practical application of skill appropriate to the rating(s) sought. The tests cover the applicant's skill in performing the practical projects on the subjects covered by the written test for that rating. The applicant will be provided with appropriate facilities, tools, materials and airworthiness data.
- (b) AME General. The skill test for the AME Licence shall test the applicant's knowledge and performance in at least the following areas of operation:
 - (1) Basic electricity.
 - (2) Aircraft drawings.
 - (3) Weight and balance.
 - (4) Fluid line and fittings
 - (5) Materials and processes.
 - (6) Ground operation and servicing.
 - (7) Cleaning and corrosion control
 - (8) Mathematics.
 - (9) Maintenance forms and records.

- (10) Basic physics.
- (11) Maintenance publications.
- (12) Aircraft mechanic technician privileges and limitations.
- (c) AME Airframe Rating.—The skill test for the airframe operation:
- (1) Wood structures.
- (13) Aircraft covering.
- (14) Aircraft finishes.
- (15) Sheet metal and non-metallic structures.
- (16) Welding.
- (17) Assembly and rigging.
- (18) Airframe inspection.
- (19) Fuel systems.
- (20) Aircraft landing gear systems.
- (21) Hydraulic and pneumatic power systems.
- (22) Cabin atmosphere control systems.
- (23) Aircraft instrument systems.
- (24) Communication and navigation systems.
- (25) Aircraft fuel systems.
- (26) Aircraft electrical systems.
- (27) Position and warning systems.
- (28) Ice and rain control systems.
- (29) Fire protection systems.
- (c) AME Powerplant Rating.—The skill test for the powerplant rating shall test the applicant's knowledge and performance in at least the following areas of operation:
 - (1) Reciprocating systems.
 - (2) Turbine engines.
 - (3) Engine inspection.
 - (4) Engine instrument systems.
 - (5) Engine fire protection systems.

- (6) Engine electrical systems.
- (7) Lubrication systems.
- (8) Ignition and starting systems.
- (9) Fuel metering.
- (10) Engine fuel systems.
- (11) Induction and engine airflow systems.
- (12) Engine cooling systems.
- (13) Engine exhaust and reverser systems.
- (14) Propellers.
- (15) Auxiliary power units.
- (d) AME Avionics Rating.—The skill test for the avionics rating shall test the applicant's knowledge and performance in the basic workshop and maintenance practices in at least the following areas of operation:
 - (1) Avionics- electrical.
 - (2) Avionics-instrument.
 - (3) Avionics-autoflight.
 - (4) Avionics-radio.
 - (5) Avionics-navigation systems.
- (6) Repair, maintenance and function testing of aircraft systems/components-avionics.
 - (7) Job/task documentation and control practices.

Skill Test for the Flight Operations Officer Dispatcher Licence.

- **IS 2.8.3.2.**—(a) The skill test for the flight operations officerdispatcher licence shall test the applicant's knowledge and performance in at least the following areas of operation:
- (1) Flight planning/dispatch release, including the applicants' knowledge and performance of the following tasks—
 - (i) Regulatory requirements.
 - (ii) Meteorology.
 - (iii) Weather observations, analysis, and forecasts.
 - (iv) Weather related hazards.
 - (v) Aircraft systems, performance, and limitations.
 - (vi) Navigation and aircraft navigation systems.

- (vii) Practical dispatch applications.
- (viii) Manuals, handbooks and other written guidance.
- (2) Preflight, takeoff, and departure, including the 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 2.10.1.4. Senior Parachute Rigger Licence Skill Test.
 - (a) The skill test for the senior parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation:
- (1) Certification, including the applicants' knowledge and performance of the following tasks—
 - (i) Senior Parachute Rigger experience requirements.
 - (ii) Senior Parachute Rigger test requirements.
- (2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks—
 - (i) Senior Parachute Rigger privileges.
 - (ii) Required facilities and equipment.
 - (iii) Performance standards.
 - (iv) Recordation.
 - (v) Manufacturer's packing instructions.
 - (vi) Repair classifications.

- (vii) Alterations.
- (viii) Equipment requirements for intentional parachute jumping.
- (ix) TSO 23c requirements.
- (3) Packing parachutes, including the applicants' knowledge and performance of the following tasks—
 - (i) Packing round parachute.
 - (ii) Packing ram-air parachute.
 - (iii) Packing piggy-back container parachute.
- (4) Parachute operation and care, including the applicants' knowledge and performance of the following tasks—
 - (i) Parachute storage.
 - (ii) Parachute drying and airing.
 - (iii) Parachute assembly inspection.
 - (iv) Cleaning parachute canopies.
 - (v) Parachute harness adjustment.
 - (vi) Pin-type static line requirements.
 - (vii) Break cord static line requirements.
 - (viii) Cleaning parachute harness/container.
- (5) Parachute construction details, including the applicants' knowledge and performance of the following tasks—
 - (i) Seam construction defects.
 - (ii) Webbing joint construction.
 - (iii) Parachute construction knots.
 - (iv) Fabric construction.
 - (v) French fell seam construction.
 - (vi) Technical standard order TSO-C23c.
 - (vii) Technical standard order TSO-C23d.
 - (viii) Fastener tapes.
 - (ix) Finger loop construction.
 - (x) Radial seam construction.
- (6) Parachute repair, including the applicants' knowledge and performance of the following tasks—
 - (i) Single canopy repair.
 - (ii) Replacement of lower control line (ram-air canopy).

- (iii) Application of non-destructive test method TS-108.
- (iv) Line attachment loop replacement.
- (v) Removal and installation of grommets.
- (vi) Sewing machine operation.
- (vii) Cascade line replacement.
- (viii) Nicopress sleeve installation.
- (ix) Replacement of V-tab (butterfly tab).
- (x) Replacement of continuous suspension line.
- (xi) Suspension line replacement in ram-air canopy.
- (xii) Container patching.
- (xiii) Ram-air canopy repair limitations.
- (xiv) Ram-air canopy repair adjacent to a seam.
- **IS 2.10.1.5.**—(*a*) The skill test for the master parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation :

Master Parachute Rigger Licence Skill Test.

- (1) Certification, including the applicants' knowledge and performance of the following tasks—
 - (i) Master Parachute Rigger experience requirements.
 - (ii) Master Parachute Rigger test requirements.
- (2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks—
 - (i) Master Parachute Rigger privileges.
 - (ii) Required facilities and equipment.
 - (iii) Performance standards.
 - (iv) Recordation.
 - (v) Manufacturer's packing instructions.
 - (vi) Repair classifications.
 - (vii) Alterations.
 - (viii) Equipment requirements for intentional parachute jumping.
 - (ix) TSO 23c requirements.
- (3) Packing parachutes, including the applicants' knowledge and performance of the following tasks—
 - (i) Packing round parachute.
 - (ii) Packing ram-air parachute.

- (iii) Packing piggy-back container parachute.
- (4) Parachute operation and care, including the applicants' knowledge and performance of the following tasks—
 - (i) Parachute storage.
 - (ii) Parachute drying and airing.
 - (iii) Parachute assembly inspection.
 - (iv) Cleaning parachute canopies.
 - (v) Parachute harness adjustment.
 - (vi) Pin-type static line requirements.
 - (vii) Break cord static line requirements.
 - (viii) Cleaning parachute harness/container.
- (5) Parachute construction details, including the applicants' knowledge and performance of the following tasks—
 - (i) Seam construction defects.
 - (ii) Webbing joint construction.
 - (iii) Parachute construction knots.
 - (iv) Fabric construction.
 - (v) French fell seam construction.
 - (vi) Technical standard order TSO-C23c.
 - (vii) Technical standard order TSO-C23d.
 - (viii) Fastener tapes.
 - (ix) Finger loop construction.
 - (x) Radial seam construction.
- (6) Parachute repair, including the applicants' knowledge and performance of the following tasks—
 - (i) Single canopy repair.
 - (ii) Replacement of lower control line (ram-air canopy).
 - (iii) Application of non-destructive test method TS-108.
 - (iv) Line attachment loop replacement.
 - (v) Removal and installation of grommets.
 - (vi) Sewing machine operation.
 - (vii) Cascade line replacement.
 - (viii) Nicopress sleeve installation.
 - (ix) Replacement of V-tab (butterfly tab).

- (x) Replacement of continuous suspension line.
- (xi) Suspension line replacement in ram-air canopy.
- (xii) Container patching.
- (xiii) Ram-air canopy repair limitations.
- (xiv) Ram-air canopy repair adjacent to a seam.
- (7) Parachute Alterations, including the applicants' knowledge and performance of the following tasks—
 - (i) Alteration data approval.
 - (ii) Install an automatic activation device.
 - (iii) Fabrication binding corners.
 - (iv) Altering riser connections.
 - (v) Bridle cord alteration.
 - (vi) Threading friction adapter.
 - (vii) D- or V-ring alteration.
 - (viii) Conversion of ripcord deployment to hand deployed pilot chute.
 - (ix) Fabricate a canopy deployment bag.
 - (x) Convert throw-out pilot chute from rear of leg position to the bottom of container position.
- **IS 2.10.1.6.**—(*a*) The skill test for ratings or added ratings to a parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation applicable to the rating sought, including the applicant's knowledge and performance of the following:

Type Ratingsparachute Rigger Licence Skill

- (1) Additional rating requirements.
- (2) Packing seat-type parachute.
- (3) Packing back-type parachute (excluding piggy-back).
- (4) Packing chest-type parachute.
- (5) Packing lap-type parachute.
- **IS 2.11.1.3.**—(*a*) Basic training in aviation medicine for AAMEs shall include at least the following :

Authorised Aviation Medical Examiners.

- (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.
- (b) Advanced training in a viation medicine for AAMEs 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 2.11.1.8. Medical Certificate.

- (c)(b) The following details shall appear on the medical certificate in the Roman alphabet :
 - (1) Name of State.
 - (2) Licence No.
 - (3) Name of holder in full;
 - (4) Date of birth.
 - (5) Address of holder.

- (6) Nationality of holder.
- (7) Signature of holder.
- (8) Medical certificate Class 1, 2 or 3.
- (9) Issuing Authority.
- (10) Validity.
- (11) Limitations.
- (12) 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		