

**GHANA CIVIL AVIATION**  
**(FLIGHT STANDARDS) DIRECTIVES**



**PART 2 – PERSONNEL LICENSING**

**NOVEMBER, 2018**

GCAA

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## Part 2—Personnel Licensing

### 2.1 GENERAL

#### 2.1.1 APPLICABILITY

This part prescribes:

- a) The requirements for issuing, renewal and re-issue of aviation personnel licences, ratings, authorisations and certificates;
- b) The conditions under which those licences, ratings, authorisations and certificates are necessary; and
- c) The privileges and limitations granted to the holders of those licences, ratings, authorisations and certificates.

#### 2.1.2 DEFINITIONS

The following definitions shall apply in this Part:

**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.

**Advanced flight training device.** A flight training device that has a cockpit that accurately replicates a specific make, model and type aircraft cockpit, and handling characteristics that accurately model the aircraft handling characteristics.

**Adapted competency model.** A group of competencies with their associated description uses to develop competency-based training and assessment for a given role.

**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.

**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.

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

**Aircraft — category.** Classification of aircraft according to specified basic characteristics, e.g. aeroplane, airship, helicopter, glider, free balloon and powered lift.

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**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.

**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.

**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.

**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.

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

**Airship.** A power driven lighter-than-air aircraft.

**Appropriate airworthiness requirements.** The comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.

**Approved maintenance organization.** An organization approved by the Authority, in accordance with the relevant requirements of Parts 5, 6, and 9 of these Directives to perform maintenance of aircraft or parts thereof and operating under supervision approved by that State.

**Approved training.** Training conducted under special curricula and supervision approved by the Authority

**Approved training organisation.** Approved training organization. An organization approved by and operating under the supervision of the Authority in accordance with the requirements of Part 2 and Part 3 of these Flight Standards Directives to perform approved training.

**Authorised instructor.** A person who—

- (i) Holds a valid ground instructor certificate issued under Part 2 when conducting ground training;
- (ii) Holds a current flight instructor certificate issued under Part 2 when conducting ground training or flight training; or
- (iii) Is authorised by the Authority to provide ground training or flight training under Part 2 and Part 3.

**Air Traffic Services (ATS) Surveillance service.** A term used to indicate a service provided directly by means of an ATS surveillance system.

**Air Traffic Services (ATS) Surveillance system.** A generic term meaning variously, Automatic Dependent Surveillance Broadcast (ADS-B), Primary



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Surveillance Radar (PSR), Secondary Surveillance Radar (SSR) or any comparable ground-based system that enables the identification of aircraft.

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

*Note: This definition applies to free balloons.*

**Cabin Crew Member.** A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft but who shall not act as a flight crew member.

*Note: - In these Directives the terms 'Cabin Crew Certificates' and 'Cabin Crew Licences' used by Cabin Crew Members are interchangeable and carry the same meaning*

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

**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).

**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.

**Command and control (C2) link.** The data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight.

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

**Competency.** A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.

**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.

**Competency unit.** A discrete function consisting of a number of competency elements.

**Complex aeroplane.** An aeroplane having retractable landing gear (except in seaplanes), flaps and a controllable propeller.

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

**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.

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**Core curriculum.** A set of courses approved by the Authority, for use by an ATO and its satellite ATOs. The core curriculum consists of training that is required for licensing or aircraft ratings. It does not include training for tasks and circumstances unique to a particular user.

**Credit.** Recognition of alternative means or prior qualifications.

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

**Detect and avoid.** The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.

**Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft Or from a properly authorized remote pilot using the remote pilot station during a remotely piloted aircraft flight.

**Error.** An action or inaction by an operational person that leads to deviations from organizational or flight crew intentions or expectations.

**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.

*Note.— See Attachment C to Chapter 3 of the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) and Circular 314- Threat and Error Management (TEM) in Air Traffic Control for a description of undesired states*

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

**Flight plan.** Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

**Flight procedures trainer.** See Flight simulation training device.

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

- (a) **A flight simulator**, which provides an accurate representation of the flight deck of a particular aircraft type or an accurate representation of the remotely piloted aircraft system (RPAS) to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated.

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

(c) **A *basic instrument flight trainer***, which is equipped with appropriate instruments and which simulates the flight deck environment of an aircraft in flight or the RPAS environment in instrument flight conditions.

**Flight training equipment.** Flight simulators, flight training devices and aircraft.

**Flight simulator.** See Flight simulation training device.

**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.

**Note.** – *Flight time as here defined is synonymous with the term “block to block” time or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.*

**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.

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

**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.

**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.

**Handover.** The act of passing piloting control from one remote pilot station to another.

**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.

**Human performance.** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

**High-performance aeroplane.** An aeroplane with an engine of more than 200

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horsepower.

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

**Instrument ground time.** Time during which a pilot is practicing, on the ground, simulated instrument flight in a flight simulation training device approved by the Authority.

**Instrument time.** Instrument flight time or instrument ground time.

**Licensing Authority.** The Ghana Civil Authority.

**Likely.** In the context of the medical provisions in 2.10 of this Part, *likely* means with a probability of occurring that is unacceptable to the Medical Assessor.

**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.

**Medical Assessment.** The evidence issued by the Authority that the license holder meets specific requirements of medical fitness.

**Medical Assessor.** A physician, appointed by the Authority, qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance.

*Note 1.- Medical assessors evaluate medical reports submitted to the Authority by medical examiners.*

*Note 2.- Medical assessors are expected to maintain the currency of their professional knowledge*

**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.

**Medical certificate. means** Medical Assessment.

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

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

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**Operating Personnel.** Personnel involved in aviation activities who are in a position to report safety information.

*Note- Such personnel include but are not limited to flight crews, air traffic controllers, aeronautical station operators, maintenance technicians, personnel of aircraft design and manufacturing organisations, cabin crews, flight dispatchers, apron personnel and ground handling personnel.*

**Operating position.** An air traffic control function performed within or directly associated with a control facility.

**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.

**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.

**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 Authority.

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

**Powered-lift.** A heavier-than-air aircraft capable of vertical take-off, 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.

**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.

**Progressive Inspection (aircraft maintenance inspection).** An inspection that may be used in place of an annual or 100-hour inspection. It has the same scope as an annual inspection, but it may be performed in increments so the aircraft does not have to be out of service for a lengthy period of time.

**Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

**Psychosis.** A mental disorder in which the individual has manifested delusions, hallucinations, grossly bizarre or disorganised behaviour or other commonly accepted symptoms of this condition; or the individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or

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disorganised behaviour or other commonly accepted symptoms of this condition.

**Quality system.** Documented organizational procedures and policies; internal audit of those policies and procedures; management review and recommendation for quality improvement.

**Rated air traffic controller.** An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.

**Rating.** An authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence.

**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.

**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.

**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 fulfilment of specified requirements.

**Remote co-pilot.** A licensed remote pilot serving in any piloting capacity other than as remote pilot-in-command but excluding a remote pilot who is in the remote pilot station for the sole purpose of receiving flight instruction

**Remote flight crew member.** A licensed flight crew member charged with duties essential to the operation of a remotely piloted aircraft system during a flight duty period.

**Remote pilot.** A person charged by the operator with duties essential to the operation of a remotely piloted aircraft and who manipulates the flight controls, as appropriate, during flight time.

**Remote pilot-in-command.** The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

**Remote pilot station (RPS).** The component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft.

**Remotely piloted aircraft (RPA).** An unmanned aircraft which is piloted from a remote pilot station.

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**Remotely piloted aircraft system (RPAS).** A remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design.

**Rotorcraft.** A power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

**Route sector.** A flight comprising take off, departure, cruise of not less than 15 minutes, arrival, approach and landing phases.

**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 Part 9 of these Flight Standards Directives.

**Significant.** In the context of the medical provisions in 2.10 of this Part, **significant** means to a degree or of a nature that is likely to jeopardize flight safety.

**Solo flight time.** Flight time during which a student pilot is the sole occupant of an aircraft.

**Solo flight time – remotely piloted aircraft systems.** Flight time during which a student remote pilot is controlling their remotely piloted aircraft system, acting solo

**State safety programme (SSP).** An integrated set of Directives and activities aimed at improving safety,

**Substance.** Alcohol, sedatives, hypnotics, anxiolytics, hallucinogens, opioids, cannabis, inhalants, central nervous system stimulants such as cocaine, amphetamines and similarly acting sympathomimetics, phencyclidine or similarly acting arylcyclohexylamines, and other psychoactive drugs and chemicals.

**Substance abuse.** Refers to -

- (i) The use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
- (ii) A verified positive drug test result acquired under an anti-drug program or internal program of the Ghana Government; or
- (iii) Misuse of a substance that the Authority, based on case history and qualified medical judgment relating to the substance involved, finds and makes the applicant unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or may reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the applicant unable to perform those duties or exercise those privileges.

**Substance dependence.** A condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by increased tolerance; manifestation of withdrawal

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symptoms; impaired control of use; or continued use despite damage to physical health or impairment of social, personal or occupational functioning.

**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.

**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 aircraft states.

*Note.- See Attachment C to Chapter 3 of the Procedures for Air Navigation Services – Training (PANS-TRG, Doc 9868) and Circular 314 – Threat and Error Management (TEM) in Air Traffic Control for a description of undesired states.*

**Validation.** The action taken by the Republic of Ghana 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 Ghana.

*The term “Aircraft Maintenance Engineer” as used in this subpart, as described under ICAO Annex 1, 4.2, the terms “Aircraft Maintenance Engineer”, “Aircraft Maintenance Technician” and “Aircraft Maintenance Mechanic” are accepted with equal validity.*

### 2.1.3 ABBREVIATIONS

The following abbreviations are used in this Part:

**A** – Aeroplane.  
**AIP** – Aeronautical Information Publication.  
**AME** – Aviation Medical Examiner.  
**AME** – Aircraft Maintenance Engineer.  
**ARS** – Aviation Repairman Specialist  
**ATCO** – Air Traffic Controller (Note: abbreviation ICAO A446).  
**AS** – Airship.  
**ATPL** – Airline Transport Pilot Licence.  
**B** – Balloon.  
**CAT II** – Category II.  
**CAT III** – Category III.  
**CPL** – Commercial Pilot Licence.  
**CRM** – Crew Resource Management.  
**DFEE** – Designated Flight Engineer Examiner.  
**DFNE** – Designated Flight Navigator Examiner.  
**DFDE** – Designated Flight Dispatcher Examiner.  
**DME** – Designated Maintenance Engineer Examiner.  
**DPE** – Designated Pilot Examiner.  
**DPRE** – Designated Parachute Rigger Examiner.  
**FE** – Flight Engineer.  
**FI** – Flight Instructor.



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**FOO** – Flight Operations Officer.  
**G** – Glider.  
**IA** – Inspection Authorisation.  
**IFR** – Instrument Flight Rules.  
**ILS** – Instrument Landing System.  
**H** – Helicopter.  
**ICAO** – International Civil Aviation Organisation.  
**MPA** – Multi-pilot Aeroplane.  
**MPH** – Multi-pilot Helicopter.  
**MPL** – Multi-crew Pilot Licence  
**NOTAM** – Notice to airmen.  
**PIC** – pilot-in-command.  
**PL** – Powered-lift  
**PPL** – Private Pilot Licence.  
**RP** – Remote Pilot.  
**RPAS** – Remotely Piloted Aircraft System.  
**RT** – Radiotelephony.  
**SPA** – Single-pilot Aeroplane.  
**SPH** – Single-pilot Helicopter.  
**STS** – Skill test standard  
**VFR** – Visual Flight Rules.

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

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

- (1) No person shall act in any of the specified roles in this Part without having obtained from the Authority, a licence, rating, privilege, authorisation, certificate, endorsement, designation or approval, as may be applicable, in accordance with this Part.
- (2) No person shall use the services of a person in any of the specified roles of this Part, without that person having obtained the required licence, rating, privilege, authorisation, certificate, endorsement, designation or approval in accordance with this Part.

#### **2.2.1.1 LICENCES**

- (1) No person shall act in any capacity in the provision of air transportation as specified in 2.2.1.1(2) without the requisite licence issued by the Authority.
- (2) 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:
  - (a) Pilot licences:
    - i. Private pilot licence – aeroplane, helicopter, airship, powered-lift, balloon or glider categories;

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- ii. Commercial pilot licence—aeroplane, helicopter, airship, powered-lift, balloon or glider categories;
  - iii. Multi-crew pilot licence – aeroplane,
  - iv. Airline Transport pilot licence (ATPL) – aeroplane, helicopter or powered-lift categories.
- (b) Flight engineer licence.
  
  - (c) Flight navigator licence.
  - (d) Flight Dispatcher licence.
  - (e) Flight instructor licence.
  - (f) Ground instructor licence.
  - (g) Aircraft Maintenance Engineers licence.
  - (h) Aviation Repairman specialist licence.
  - (i) Parachute Rigger licence.
  - (j) Air Traffic Controller licence.
  - (k) Aeronautical Station Operator licence.
  - (l) Flight Radiotelephone Operator.

*Notes: Regarding the Flight radiotelephone operator licence:*

- (3) Where the knowledge and skill of an applicant have been established as satisfactory in respect of the certification requirements for the radiotelephone operator's restricted certificate specified in the general radio regulations annexed to the International Telecommunication Convention and the applicant has met the requirements that are pertinent to the operation of the radiotelephone on board an aircraft, the Authority may endorse a licence already held by the applicant or issue a separate licence as appropriate.
- (4) Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all pilot aeroplane and helicopter licences.

#### **2.2.1.2 RATINGS**

- (1) No person shall act in any capacity in the provision of air transportation as specified in 2.2.1.1(2) without the requisite rating issued by the Authority.
- (2) 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:
  - (a) Category ratings in the following aircraft:
    - i. Aeroplane.
    - ii. Helicopter.
    - iii. Glider.

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- iv. Free Balloon.
  - v. Airship.
  - vi. Powered lift.
  - (b) Class ratings in the following aircraft:
    - i. Single-Engine Land – aeroplane.
    - ii. Single-Engine Sea – aeroplane.
    - iii. Multi-Engine Land – aeroplane.
    - iv. Multi-Engine Sea- aeroplane.
    - v. A class rating may be issued for those helicopters certificated for single-pilot operations and which have comparable handling, performance and other characteristics.
    - vi. Hot air – balloon.
    - vii. Gas – balloon.
    - viii. Any rating considered necessary by the Authority.

*Note: A class rating or endorsement for High Performance Aeroplanes (HPA) requires additional knowledge, if the applicant has not completed the ATPL (A) knowledge requirements.*

- (c) 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 (1)(b)(v).
- (d) Any aircraft considered necessary by the Authority.

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

- (e) 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.*

- (f) Flight Instructor ratings: The appropriate aircraft category, class, instrument and or type rating according to the instruction to be taught.
- (g) 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.
- (h) 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:

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- i. Reciprocating engine powered.
    - ii. Turbo propeller powered.
    - iii. Turbojet powered.
  - (i) 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:
    - i. Aerodrome control rating.
    - ii. Approach control rating.
    - iii. Approach radar control rating.
    - iv. Approach precision radar control rating.
    - v. Area control rating.
    - vi. Area radar control rating.
  - (j) The Authority may issue the following ratings to place on an aircraft maintenance technician licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
    - i. Airframe.
    - ii. Powerplant.
    - iii. Avionics.
  - (k) The Authority may issue ratings as appropriate to place on an aviation repairman specialist licence.
  - (l) 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:
    - i. Seat.
    - ii. Back.
    - iii. Chest.
    - iv. Lap.

### **2.2.1.3 AUTHORISATIONS**

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

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- (3) The Authority may issue the following authorisation to place on an AME licence when an applicant satisfactorily accomplished the requirements in the Part for the authorisation sought:
- (a) Inspection authorisation.

#### **2.2.1.4 ENDORSEMENTS**

A pilot may receive the following endorsements from an authorised instructor when he satisfactorily accomplished the required training in this Part:

- (a) Complex aeroplane endorsement.
- (b) High performance aeroplane endorsement.
- (c) High altitude aircraft endorsement.
- (d) Night vision goggles endorsement.

#### **2.2.1.5 CERTIFICATES**

- (1) The Authority may issue the following medical certificates when an applicant satisfactorily accomplishes the requirements in this Part for the medical certificate sought:
- (a) Medical certificate Class 1 for CPL and ATPL licences; flight instructor licences and DPEs;
  - (b) Medical certificate Class 2 for student pilot authorisation, PPL, Flight Engineer, Flight Navigator and Cabin Crew Member certificate;
  - (c) Medical certificate Class 3 for Air traffic controller licence and RPAS.
- (2) **Cabin Crew Certificates.**
- (3) The Authority may issue the following certificates to pilots and flight engineers holding a licence from another ICAO Contracting State.
- (4) **Validation certificates.** The Authority may issue certificates of designation to representatives of the Director General of the Authority as identified in [2.2.1.6](#) below.

#### **2.2.1.6 DESIGNATION OF REPRESENTATIVES OF THE DIRECTOR-GENERAL OF GHANA CIVIL AVIATION AUTHORITY**

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:

- (a) DPE;
- (b) DFEE;
- (c) DFNE;
- (d) DFOOE;
- (e) DME;

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- (f) DPRE;
  - (g) AME; or
  - (h) Other designees as may be determined by the Authority.

#### **2.2.1.7 VALIDITY OF LICENCES, RATINGS, AUTHORISATIONS AND CERTIFICATES**

- (1) The validity period of the licences, ratings, authorisations, designations, certificates of validation and medical certificates and the renewal or re-issue conditions are indicated in the applicable requirements of this Part.
- (2) The issue, renewal and re-issue of licences, ratings, authorisations, designations and certificates shall be performed by the Authority.
- (3) Renewal of ratings and category II or category III pilot authorisations may be performed by the applicable Examiner, when delegated by the Authority.
- (4) 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.
- (5) For renewal,
  - (a) Applications must be made to the Authority at least 14 days before the expiry date.
  - (b) The licence, ratings, authorisations, certificates, including any required medical certificate, must be valid.

#### **2.2.1.8 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) 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.
- (3) No person may exercise the privileges of a license or rating issued by the Authority unless the holder maintains competency and meets the requirements for recent experience of this Part.
- (4) Maintenance of competency shall be indicated in the airman's personal licence or record (e.g. logbook).
- (5) 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.
- (6) **Medical fitness.** Applicants for the following licences and authorisations shall hold a current and appropriate medical certificate issued under this part in order for their licence or authorisation to be valid:
  - (a) Student pilot authorisation.
  - (b) Pilot licence,
  - (c) Flight engineer licence.

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- (d) Flight navigator licence.
  - (e) Flight instructor licence.
  - (f) Designated pilot examiner (DPE).
  - (g) Designated flight engineer examiner.
  - (h) Designated flight navigator examiner.
  - (i) Air traffic controller licence.

## **2.2.2 LANGUAGE PROFICIENCY**

- (1) As of 3 November 2022, no person shall operate aeroplane, airship, helicopter and powered-lift pilots, glider, rotorcraft, powered-lift or free balloon remote pilots, Air Traffic Controller and Aeronautical Station Operator unless they demonstrate the ability to speak and understand the Aviation English language used for radio telephony communications in Ghana.
- (2) No person shall operate as a Pilot or Air Traffic Controller unless the person demonstrates the ability to speak and understand the Aviation English Language used for radiotelephony communications in Ghana 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.
- (3) No person shall operate as a Flight navigator or use the radiotelephone aboard an aircraft as a Flight Navigator unless the person demonstrates the ability to speak and understand the Aviation English Language used for radiotelephony communications to the level specified in the language proficiency requirements in IS:2.2.2.
- (4) The language proficiency of specified personnel in item (1) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level as follows:
  - (a) Those demonstrating language proficiency at the Operational Level (Level 4) shall be evaluated at intervals not greater than 3 years;
  - (b) Those demonstrating language proficiency at the Extended Level (Level 5) shall be evaluated at intervals not greater than 6 years; and
  - (c) Those demonstrating language proficiency at the Expert Level (Level 6) shall be exempt from further language evaluation.

*Note- Implementing Standard IS:2.2.2 contains the detailed requirements for language proficiency.*

## **2.2.3 CREDIT FOR MILITARY COMPETENCY**

### **2.2.3.1 CREDIT FOR MILITARY PILOTS**

- (1) **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 military training, for:

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- (a) A CPL;
  - (b) A rating in the category and class of aircraft for which that military pilot is qualified;
  - (c) An instrument rating with the appropriate category rating for which that military pilot is qualified; and
  - (d) A type rating, if appropriate.
- (2) The testing required by a military pilot seeking a licence or rating is as follows:
- (a) If the applicant has been on active flight status within the past 12 months of application, pass a knowledge test on:
    - i. Air law;
    - ii. Meteorology;
    - iii. Operational procedures; and
    - iv. Radiotelephony;
  - (b) If the applicant has not been on active flight status within the past 12 months of application, pass both a knowledge and skill test.

#### **2.2.3.2 CREDIT FOR MILITARY PARACHUTE RIGGERS**

The Authority shall grant to an applicant for a senior parachute rigger licence that licence if he passes a knowledge test on Subpart 2.10 of these Directives and presents satisfactory documentary evidence that he—

- (a) Is a member or civilian employee of the Armed Forces of Ghana, is a civilian employee of a regular Armed Forces of a foreign country, or has, within the 12 months before he applies, been honourably discharged or released from any status covered by this provision;
- (b) Is serving, or has served within the 12 months before application, as a parachute rigger for the Armed Forces; and
- (c) Has the experience required by paragraph 2.9.1.4.

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

##### **2.2.4.1 VALIDATION OF FLIGHT CREW LICENCES**

###### **2.2.4.1.1 GENERAL REQUIREMENTS FOR VALIDATION.**

###### **(1) General**

- (a) 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 Ghana.
- (b) 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).



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- (c) The applicant for the validation certificate shall present to the Authority evidence that he 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.
  - (d) The Authority may allow the applicant to use his 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.
  - (e) The applicant for the validation certificate shall present to the Authority evidence of language proficiency in the language of Ghana and in English as specified in [2.2.2](#) or shall demonstrate to the Authority the language proficiency skills as specified in [2.2.2](#).
  - (f) The validation shall be limited for use on Ghana registered aircraft for use within Ghana if the pilot is not proficient in the English language, as required by [2.2.2](#).
  - (g) 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.
  - (h) The Authority will only validate ratings or authorisations on the foreign licence together with the validation of a licence.
  - (i) 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.

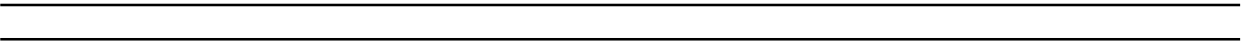
**(2) Validation certificate with PPL privileges.**

- (a) In addition to the requirements in item (1), the applicant for the validation certificate with PPL privileges shall have a foreign licence with at least PPL privileges.
- (b) When an authorization under 2.2.4.1 is issued for use in commercial air transport operations, the Licensing Authority shall confirm the validity of the other Contracting State's Licence before issuing the authorization.

**(3) Rendering a license valid pursuant to a formal agreement between Contracting States under common licensing regulations.**

Notwithstanding the provisions in 2.2.4.1(1)(b) and 2.2.4.1(2)(c), Contracting States may automatically render valid each other's licences, provided that the States shall have:

- (a) adopted common licensing regulations that are compliant with this Directive;
- (b) entered into a formal agreement recognizing the automatic validation process;
- (c) established a surveillance system to ensure the continuing implementation of the common licensing regulations; and
- (d) registered the agreement with ICAO pursuant to Article 83 of the Convention on International Civil Aviation.
- (e) An endorsement shall appear on licences rendered valid under the process of 2.2.4.1.1 (3) indicating that the licence is automatically validated under the agreement described in 2.2.4.1.1 (3) (b) and referencing the ICAO registration number of the agreement. The endorsement shall further include a list of all States that are party to the agreement. 2.2.4.1.1 (3) (b) provides a transition period for States that meet the requirements in 2.2.4.1.1 (3) and have issued licences prior to the applicability of this Directives.
- (f) Until 31 December 2022, States that meet the requirements in 1.2.2.3.1 and have issued licences prior to 9 November 2017 may use other effective means, carried on board the aircraft or



accessible, to indicate that the licences issued by the State are rendered valid in accordance with the agreement in 1.2.2.3.1.

(g)

**(4) Validation certificate with PPL/IR, CPL, CPL/IR, MPL, ATPL or FE privileges.**

In addition to the requirements in item (1), 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:

- (a) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Ghana's:
  - i. Air Law;
  - ii. Meteorology;
  - iii. Operational procedures; and
  - iv. Radiotelephony;
- (b) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that he wants to be validated relevant to the privileges of the licence held; and
- (c) Comply with the experience requirements set out in the table 1.
- (d) Except in the case of Ghanaian citizens—
  - i. An applicant may use only one foreign licence as a basis for obtaining the licence issued by the Authority.
  - ii. The Authority may, in processing an application under this subparagraph, request for supporting documents and interview the Applicant.
  - iii. The Authority shall verify from the issuing State the authenticity of documentation received.
  - iv. Where applicable, the Authority shall require additional proficiency or competency tests of the Applicant.
- (e) Where the Applicant satisfies all conditions required, the Authority shall issue a licence which shall contain the pilot's foreign licence number, country of issuance; and an expiration date.

*Table 1.*

<b>Licence</b>	<b>Experience</b>	<b>Validation Privileges</b>
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-

<b>Licence</b>	<b>Experience</b>	<b>Validation Privileges</b>
		pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	> 500 hours as PIC or co-pilot on multi-pilot aeroplanes	Commercial air transport in multi-pilot aeroplanes as co-pilot
ATPL(PL) or CPL(PL)/IR	> 500 hours as PIC or co-pilot on multi-pilot powered-lift	Commercial air transport in multi-pilot powered-lift as co-pilot
ATPL(H) or CPL(H)/IR	> 500 hours as PIC or co-pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot
CPL(A)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot aeroplanes as PIC
CPL(H)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot helicopters as PIC
CPL(A)	> 700 hours in aeroplanes other than gliders, including 200 hours in the activity role for which validation is sought, and 50 hours in that 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
CPL(AS)	> 250 hours as PIC in commercial air transport including 50 hours in AS within the last 12 months	Commercial air transport in airships as PIC under IR and VFR conditions
CPL(B)	>50 hours as PIC in commercial air transport of which 35 hours in B within the last 12 months	Commercial air transport in balloons as PIC
CPL(G)	>250 hours as PIC in commercial air transport, including of which 50 must be in G within the past 12 months	Commercial air transport in gliders as PIC
MPL(A)	>250 as co-pilot of turbine-powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots operated in commercial air transport within the past 12 months	Commercial air transport in turbine -powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots as co-pilot
PPL(A)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
PPL(H)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
PPL(PL)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
Flight engineer	> 1 500 hours as flight engineer on aeroplanes in commercial air transport	Commercial air transport in aeroplanes as flight engineer
Flight engineer	> 1 000 hours as flight engineer on aeroplanes in other than commercial air transport	Other than commercial air transport in aeroplanes as flight

Licence	Experience	Validation Privileges
		engineer

*Note 1: The term multi-pilot is used to indicate experience in an aircraft required to be operated with a co-pilot.*

**(5) Operating privileges and limitations.**

A person who receives a licence under the provisions of this Subpart—

- (a) Shall be limited to the privileges placed on the licence by the Authority;
- (b) Shall be subject to the limitations and restrictions on the person’s licence issued by the Authority and foreign licence when exercising the privileges of that licence within Ghana and with respect to aircraft registered in Ghana; and
- (c) Shall not exercise the privileges of the licence issued by the Authority when the person’s foreign licence has been revoked, suspended or otherwise becomes invalid.

**2.2.4.1.2 VALIDATION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) Notwithstanding paragraphs [2.2.4.1.1](#), 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:
  - (a) the licence is issued by another ICAO Contracting State;
  - (b) the Authority is convinced that the licence has been issued on the basis of at least Part 2;
  - (c) 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
  - (d) the applicant for the validation certificate shall demonstrate, to the satisfaction of the Authority and relevant to the licence, knowledge of Ghana’s:
    - i. Air law;
    - ii. Meteorology;
    - iii. Operational procedures; and
    - iv. Radiotelephony.
- (2) The applicant for the validation certificate shall present to the Authority the:
  - (a) Foreign licence and evidence of the currency of the licence by presenting the record (e.g. logbook).
  - (b) Medical certificate relevant to the licence to be validated, provided that the foreign medical certificate meets the requirements of Part 2.
  - (c) Evidence of language proficiency in Aviation 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](#).

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- (3) The Authority shall verify the authenticity of the licence, ratings, authorisations and the medical certificate with the State of Licence issue prior to issuing the validation.
  - (4) The Authority may issue a validation certificate which will be valid for one (1) year, provided the foreign licence, ratings, authorisations and medical certificate remains valid.

*Note. - The IS:2.2.4.3 contains procedures for validation of flight crew licences by reliance upon the licensing system of another ICAO Contracting State.*

- (5) When the Authority renders valid a licence issued by another Contracting State, as an alternative to the issuance of its own licence, it shall establish validity by suitable authorization to be carried with the former licence accepting it as the equivalent of its own licence. When the Authority limits the authorization to specific privileges, the authorization shall specify the privileges of the licence which are to be accepted as its equivalent. The validity of the authorization shall not extend beyond the period of validity of the licence. The authorization ceases to be valid if the licence upon which it was issued is revoked or suspended.

*Note.- This provision is not intended to preclude the State that issued the licence from extending, by a suitable notification, the period of validity of the licence without necessarily requiring either the physical return of the licence or the appearance of the licence holder before the Authorities of that State.*

#### **2.2.4.1.3 VALIDATION IN CASE OF LEASED, CHARTERED OR INTERCHANGED AIRCRAFT**

- (1) The requirements stated in [2.2.4.1](#) shall not apply where aircraft, registered in Ghana are leased to, chartered by or interchanged by an operator of another Contracting State, provided that during the term of the lease the State of the Operator has accepted the responsibility for the technical and/or operational supervision in accordance with Article 83 bis of the ICAO Convention.
- (2) The licences of the flight crew of the other Contracting State may be validated, provided that the privileges of the flight crew licence validation are restricted for use during the lease, charter or interchange period only on nominated aircraft in specified operations not involving a Ghana operator, directly or indirectly through a wet lease or other commercial arrangement.
- (3) The Authority shall verify the authenticity of the licence, ratings, authorisations, including the English language proficiency endorsement of at least Level 4, and the medical certificate, with the State of Licence issued prior to issuing the validation.

#### **2.2.4.1.4 VALIDATION OF NON-CITIZENS LICENCES FOR WORK IN GHANA**

- (1) **General.** A person who is not a citizen of Ghana and is the holder of a current licence issued by another Contracting State is eligible to apply for and be issued a validation with the appropriate ratings for the purpose of working for a Ghanaian operator.
- (2) The applicant shall submit an application with supporting documentation in the form and manner prescribed by the Authority.
- (3) All applications specified in (2) above shall include a work permit or immigrant quota or any other authorisation issued by the Ghana Immigration Service in accordance with law.
- (4) **Ratings issued.** The Authority may place upon the licence that it issues only the ratings listed on that person's foreign licence that are appropriate to the tasks to be

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performed.

#### **2.2.4.1.5 VALIDATION OF NON-CITIZENS FOR PRIVATE PILOT PRIVILEGES**

- (1) **General.** A person who is not a citizen of Ghana and is the holder of a current pilot licence issued by another Contracting State is eligible to apply for and be issued a private pilot licence with the appropriate ratings, without any further showing of proficiency.
- (2) **Aircraft ratings issued.** The Authority may place upon a pilot's licence that it issues the aircraft ratings listed on that pilot's foreign pilot licence.
- (3) **Instrument ratings issued.** The Authority may issue an instrument rating on a pilot licence to a person who holds an instrument rating on a licence issued by another Contracting State provided—
  - (a) Within 24 months preceding the month in which the person applies for the instrument rating, the applicant passes the appropriate knowledge test; and
  - (b) The applicant is able to read, speak, write, and understand Aviation English at the standard of at least Level 4 language proficiency.
- (4) **Operating privileges and limitations.** A person who receives a pilot licence under the provisions of this Section may act as a pilot of a civil aircraft of Ghana registry in accordance with the private pilot privileges authorised by this Part of the Flight Standards Directives.

#### **2.2.4.1.6 TEMPORARY VALIDATION OF NON-GHANA PILOT LICENCES HELD BY MANUFACTURER PILOTS**

- (1) In circumstances where validation of a non-Ghana 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.
- (2) Notwithstanding the requirements contained in Subparts [2.2.4.1.1](#), [2.2.4.1.2](#), [2.2.4.1.3](#) or [2.2.4.1.4](#), the Authority may temporarily validate a licence issued by another ICAO Contracting State in accordance with the provisions of this Part, including an instructor rating or examiner authorisation issued by that State, provided that the holder of the licence shall:
  - (a) 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;
  - (b) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Ghana's:
    - i. Air law;
    - ii. Meteorology;
    - iii. Operational Procedures; and
    - iv. Radiotelephony.
  - (c) Provide evidence of language proficiency in Aviation English as specified in subpart 2.2.2 or shall demonstrate to the Authority the language skills as specified in subpart 2.2.2.

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- (d) Be employed by an aircraft manufacturer or Approved Training Organisation located outside Ghana performing training on behalf of an aircraft manufacturer; and
  - (e) 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 Ghana, delivery or ferry flights, initial line flying, flight demonstrations or test flights.
- (3) Whenever conducting or supervising line flying, the pilot shall also be required to meet the relevant requirements of Part 8 of these Flight Standards Directives.
  - (4) The Authority shall verify the authenticity of the licence, ratings, authorisations and medical certificate with the State of licence issue prior to issuing the temporary validation.
  - (5) The duration of the temporary validation shall be for a maximum of ninety (90) days.

#### **2.2.4.1.7 VALIDATION OF AIRCRAFT MAINTENANCE ENGINEER LICENCES**

##### **(1) GENERAL REQUIREMENTS FOR VALIDATION.**

- (a) A person who holds a current and valid AME licence issued by another Contracting State, in accordance with ICAO Annex 1, shall apply for a validation of such licence for use on aircraft registered in Ghana.
  - (b) 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.
  - (c) The applicant for the validation certificate shall demonstrate to the Authority evidence of language proficiency in English.
  - (d) The Authority shall verify the authenticity of the licence, ratings or authorisations with the state of licence issue prior to issuing the validation.
  - (e) The Authority shall only validate ratings or authorisations on the foreign licence together with the validation of a licence
  - (f) The Authority may issue a validation certificate which shall not extend beyond the period of validity of the foreign licence. The validation certificate shall only remain valid provided the foreign licence, ratings or authorisations remain valid.
  - (g) 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;
    - (ii) Applicable Airworthiness requirements governing certification and continuing airworthiness; and
    - (iii) Approved maintenance organisations and procedures.
- (2) The applicant for the validation certificate shall have a minimum of four (4) years AME experience.



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#### **2.2.4.1.8 VALIDATION OF AME LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) Notwithstanding subparts [2.2.4.1.7](#), the Authority may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AME, provided:
  - (a) the licence is issued by another ICAO Contracting State;
  - (b) the Authority had determined that the licence has been issued on the basis of at least Annex 1;
  - (c) there is an agreement between the Republic of Ghana y and another Contracting State or the Authority and another Civil Aviation Authority about recognition of licences and, if applicable, keeping the licences and ratings current and valid; and
  - (d) the applicant for the validation certificate demonstrates, to the satisfaction of the Authority and relevant to the licence to be validated, knowledge of Ghana's
    - (i) Air law;
    - (ii) Applicable Airworthiness requirements governing certification and continuing airworthiness; and
    - (iii) Approved maintenance organisations and procedures.
- (2) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the currency of the licence by presenting the personal record.
- (3) The applicant for the validation shall demonstrate to the Authority evidence of language proficiency, in English.
- (4) The Authority shall verify the authenticity of the licence, ratings, with the State of Licence issue prior to issuing the validation.
- (5) The Authority may issue a validation certificate which will be valid for one (1) year, provided the foreign licence, ratings, and authorisations remain valid.

*Note. - Implementing Standard: IS: 2.2.4.1.8 contains procedures for validation of AME licences by reliance upon the licensing system of another ICAO Contracting State.*

#### **2.2.4.1.9 VALIDATION OF FLIGHT DISPATCHERS LICENCES**

- (1) **General requirements for validation.**
  - (a) A person who holds a current and valid Flight Dispatchers licence issued by another Contracting State, in accordance with ICAO Annex 1, shall apply for a validation of such licence for use on aircraft registered in Ghana.
  - (b) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the flight dispatch experience required by presenting the personal record.
  - (c) The applicant for the validation certificate shall demonstrate to the Authority the ability to speak, write and understand the English language.

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- (d) The Authority shall verify the authenticity of the license, ratings or authorizations with the state of license issue prior to issuing the validation.
  - (e) The Authority shall only validate ratings or authorizations on the foreign licence together with the validation of a licence
  - (f) The Authority may issue a validation certificate which will be valid for one (1) year, provided the foreign license, ratings or authorizations remain valid.
  - (g) 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;
    - ii. Flight performance calculation and planning;
    - iii. Meteorology; and
    - iv. Human Performance
  - (h) The applicant for the validation certificate shall complete competency checks for the relevant licence and ratings that he wants to be validated relevant to the privileges of the licence held.

#### **2.2.4.1.10 VALIDATION OF AIR TRAFFIC CONTROLLER LICENCES**

##### **(1) General requirements for validation.**

- (a) A person who holds a current and valid Air Traffic Controller licence issued by another Contracting State, in accordance with ICAO Annex 1, shall apply for a validation of such licence for use on Control Tower Unit in Ghana.
- (b) The applicant for the validation certificate shall present to the Authority the foreign licence and evidence of the Air Traffic Controller experience required by presenting the personal record.
- (c) The applicant for the validation certificate shall demonstrate to the Authority evidence of language proficiency in English level 4 or above.
- (d) The Authority shall verify the authenticity of the licence, ratings or authorisations with the state of licence issue prior to issuing the validation.
- (e) The Authority shall only validate ratings or authorisations on the foreign licence together with the validation of a licence
- (f) The Authority may issue a validation certificate which will be valid for one (1) year, provided the foreign licence, ratings or authorisations remain valid.
- (g) 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;
  - ii. Air traffic control equipment and procedures,
  - iii. Meteorology
  - iv. Human performance.

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- (h) The applicant for the validation certificate shall complete an oral practical test for the relevant ratings that he wants to be validated relevant to the privileges of the licence held.

#### **2.2.4.2 CONVERSION OF FLIGHT CREW LICENCES**

##### **2.2.4.2.1 CONVERSION OF A FOREIGN PILOT LICENCE FOR ISSUANCE OF A PPL BY GHANA.**

- (1) 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 Ghana provided the following requirements are met.
- (2) The holder shall:
- (a) present to the Authority the foreign licence, evidence of experience required by presenting the record (e.g. logbook) and current medical certificate;
  - (b) present to the Authority evidence of language proficiency in Aviation English as specified in subpart [2.2.2](#) or shall demonstrate to the Authority the language proficiency skills as specified in subpart [2.2.2](#);
  - (c) obtain a Class 2 medical certificate issued under this Part;
  - (d) demonstrate to the satisfaction of the Authority the knowledge of :
    - i. Air Law;
    - ii. Meteorology;
    - iii. Operational Procedures; and
    - iv. Radiotelephony.
  - (e) complete a PPL skill test.
- (3) The Authority shall verify the authenticity of the licence, ratings, authorisations and the medical certificate with the state of licence issue prior to converting the licence.

##### **2.2.4.2.2 CONVERSION OF PPL/IR, CPL, CPL/IR, ATPL AND FLIGHT ENGINEER LICENCES, WHICH HAVE BEEN VALIDATED IN ACCORDANCE WITH SUBPART 2.2.4.1.**

- (1) The holder of a current and valid foreign CPL, CPL/IR, ATPL or Flight Engineer licence issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Ghana provided the following requirements are met:
- (a) The applicant is the holder of a current validation certificate issued under subpart [2.2.4.1](#);

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- (b) The applicant has completed 200 flight hours in Ghana registered aircraft which are operated by an operator established in Ghana exercising the privileges granted by the validation certificate,
  - (c) 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
  - (d) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.
- (2) Ratings listed on a person's foreign pilot licence that have been validated in accordance with subpart [2.2.4.1](#), may be placed on that person's converted licence.
- (3) The holder of a current and valid foreign PPL/IR issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Ghana provided the following requirements are met:
- (a) The applicant is the holder of a current validation certificate issued under subpart [2.2.4.1](#);
  - (b) The applicant has completed 75 flight hours in a Ghana registered aircraft in Ghana exercising the privileges granted by the validation certificate,
  - (c) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 75 flight hours by presenting the record (e.g. logbook); and
  - (d) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.
- (4) Ratings listed on a person's foreign pilot licence that have been validated in accordance with subpart [2.2.4.1](#), may be placed on that person's converted licence.

#### **2.2.4.2.3 CONVERSION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) Notwithstanding subparts [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:
- (a) the licence is issued by another ICAO Contracting State;
  - (b) the Authority is convinced that the licence has been issued on the basis of at least ICAO Annex 1 and
  - (c) there is an agreement between the Authority and the other Contracting State about recognition of licences.
- (2) The applicant for the conversion shall present to the Authority the:
- (a) foreign licence and evidence of the currency of the licence by presenting the record (e.g. logbook);
  - (b) medical certificate relevant to the licence if the medical certificate is to be converted or medical certificate issued under this Part relevant to the licence sought; and
  - (c) Evidence of language proficiency in English as specified in subpart [2.2.2](#) or shall demonstrate to the Authority the language skills as specified in subpart [2.2.2](#).

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(3) The applicant shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, the knowledge of Ghana's:

- (a) Air law;
- (b) Meteorology;
- (c) Operational procedures;
- (d) Radiotelephony.

(4) 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 licence.

*Note-Implementing Standard: IS:2.2.4.4 contains procedures conversion of flight crew licences by reliance upon the licensing system of another ICAO Contracting State.*

#### **2.2.4.2.4 CONVERSION OF AIRCRAFT MAINTENANCE ENGINEER LICENCES**

(1) **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 Ghana provided the following requirements are met:

- (a) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the experience required by presenting a duly completed form in the manner prescribed by the Authority.
- (b) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency, in English.
- (c) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Ghana's:
  - i. Air Law;
  - ii. Applicable Airworthiness requirements governing certification and continuing airworthiness;
  - iii. Approved maintenance organisations and procedures.

(2) The applicant for the conversion of License shall complete a skill test for the relevant licence and rating(s) that is required to be converted relevant to the privileges of the licence held.

(3) The Authority will verify the authenticity of the licence, ratings and authorisations with the State of licence issue prior to issuing the converted licence.

(4) The Authority may only convert ratings or authorisations on the foreign licence together with the conversion of a licence.

#### **2.2.4.2.5 CONVERSION OF AME LICENCES THAT HAVE BEEN VALIDATED IN ACCORDANCE WITH SUBPART 2.2.4.1.7.**

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 Subpart [2.2.4.1.7](#) and can show evidence of 12 months performing maintenance on aircraft registered in Ghana may convert his AME licence upon application to the Authority.

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#### **2.2.4.2.6 CONVERSION OF AME LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) Notwithstanding Subparts [2.2.4.1.7](#) and [2.2.4.1.8](#), the Authority may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:
  - (a) the licence is issued by another ICAO Contracting State;
  - (b) the Authority is convinced that the licence has been issued on the basis of at least ICAO Annex 1; and
  - (c) there is an agreement between the Authority and the other Contracting State about recognition of licences.
- (2) The applicant for the conversion shall present to the Authority the:
  - (a) Foreign licence; and
  - (b) Evidence of the currency of the licence by presenting the duly completed form prescribed by the Authority.
  - (c) The applicant for the conversion shall demonstrate to the Authority evidence of English language proficiency.
- (3) The applicant shall demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted knowledge of Ghana's:
  - (a) Air law;
  - (b) Applicable airworthiness requirements governing certification and continuing airworthiness; and;
  - (c) Approved maintenance organisations and procedures.
- (4) 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.

*Note-Implementing Standard: See IS:2.2.4.6 contains procedures conversion of AME licences by reliance upon the licensing system of another ICAO Contracting State.*

#### **2.2.4.2.7 CONVERSION OF FLIGHT DISPATCHERS LICENCES**

- (1) **General requirements for conversion.**
  - (a) A person who holds a current and valid Flight Dispatchers 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 Ghana provided the following requirements are met:
    - (i) The applicant for the conversion shall present to the Authority the foreign licence and evidence of flight dispatch experience required by presenting a duly completed form in the manner prescribed by the Authority.
    - (ii) The applicant for the conversion shall demonstrate to the Authority the ability to speak, write and understand the English language.
    - (iii) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Ghana's:

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- (A) Air Law;
  - (B) Flight performance calculation and planning;
  - (C) Meteorology; and
  - (D) Human Performance
- (b) The applicant for the conversion of License shall complete a competency check for the relevant licence and rating(s) that is required to be converted relevant to the privileges of the licence held.
  - (c) The Authority shall verify the authenticity of the licence, ratings and authorisations with the State of licence issue prior to issuing the converted licence.
  - (d) The Authority may only convert ratings or authorisations on the foreign licence together with the conversion of a licence.

#### **2.2.4.2.8 CONVERSION OF FLIGHT DISPATCHERS LICENCES THAT HAVE BEEN VALIDATED IN ACCORDANCE WITH SUBPART 2.2.4.1.9.**

The holder of a current and valid Flight Dispatchers licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with Subpart [2.2.4.1.9](#) and can show evidence of 12 months performing flight dispatch on aircraft registered in Ghana may convert his Flight Dispatchers licence upon application to the Authority.

#### **2.2.4.2.9 CONVERSION OF AIR TRAFFIC CONTROLLER LICENCES**

##### **(i) General requirements for conversion.**

- (a) A person who holds a current and valid Air Traffic Controller licence issued by another Contracting State, in accordance with ICAO Annex 1, may apply for conversion of such licence for use on Control Tower Unit in Ghana provided the following requirements are met:
  - (i) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the experience required by presenting a duly completed form in the manner prescribed by the Authority.
  - (ii) The applicant for the conversion shall demonstrate to the Authority evidence of language proficiency, in English level 4 or above.
  - (iii) Demonstrate, to the satisfaction of the Authority and relevant to the licence to be converted, knowledge of Ghana's:
    - A. Air Law;
    - B. Air traffic control equipment and procedures,
    - C. Meteorology
    - D. Human performance,
- (e) The applicant for the conversion of License shall complete a skill test for the relevant licence and rating(s) that is required to be converted relevant to the privileges of the licence held.

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- (f) The Authority shall verify the authenticity of the licence, ratings and authorisations with the State of licence issue prior to issuing the converted licence.
  - (g) The Authority may only convert ratings or authorisations on the foreign licence together with the conversion of a licence.

**2.2.4.2.10 CONVERSION OF AIR TRAFFIC CONTROLLER LICENCES THAT HAVE BEEN VALIDATED IN ACCORDANCE WITH SUBPART 2.2.4.1.10.**

The holder of a current and valid Air Traffic Controller licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with Subpart [2.2.4.1.10](#) and can show evidence of 12 months performing air traffic service in air traffic control unit in Ghana may convert his air traffic controller licence upon application to the authority.

**2.2.4.3 VALIDATION AND CONVERSION OF LICENCES OTHER THAN FLIGHT CREW LICENCES**

- (1) Aviation Repairman Specialist, Parachute Riggers and Aeronautical Station Officer Licences issued by other ICAO Contracting States may be converted to their equivalent Ghana licences when they meet the minimum standards.
- (2) A person who holds a current and valid licence other than a flight crew licence as listed in 2.2.4.5(1), issued by another Contracting State in accordance with ICAO Annex 1, may apply for a validation or conversion and be issued with its equivalent for use on aircraft registered in Ghana provided the following requirements are met. The holder shall:
  - (a) present the foreign licence to the Authority;
  - (b) present recent maintenance experience where applicable
  - (c) present competency checks in the case of Aeronautical Station officer
  - (d) demonstrate to the satisfaction of the Authority the knowledge relevant to the licenses listed in (1).
- (e) Cabin Crew Certificates or Licences issued by other ICAO Contracting States may be converted or validated when the requirements stated if the following are met;
  - i. present the foreign licence to the Authority;
  - ii. present current medical certificate
  - III.** demonstrate to the satisfaction of the Authority the knowledge relevant to cabin crew certificate.



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#### **2.2.4.4 CONVERSION OF LICENCES & RATINGS FOR GHANAIAN CITIZENS**

(1) **General.** A person who is a citizen of Ghana and is the holder of a current airman licence issued by another Contracting State is eligible to apply for and be issued a licence with the appropriate ratings, or have ratings from that licence added to his airman licence.

(2) **Foreign licence no longer applicable for Ghana operations.**

Upon issuance of a Ghanaian licence or added ratings by conversion, the Licence is—

- (a) Effective for operations of aircraft registered in Ghana regardless of the status of the foreign pilot licence.
- (b) Subject to the re-examination for medical fitness as provided in this Part.

(3) **Same privileges and limitations.**

A citizen of Ghana who receives a licence or added ratings under the provisions of this Subpart has the same privileges as if those licences and ratings were issued on the basis of a showing of knowledge, competency and proficiency to the Authority.

#### **2.2.5 TRAINING AND TESTING REQUIREMENTS**

##### **2.2.5.1 DOCUMENTATION OF TRAINING AND AERONAUTICAL EXPERIENCE**

Each person shall document and record the following in a manner acceptable to the Authority:

- (a) Training and experience used to meet the requirements for a licence, rating, endorsement and authorisation of this Part and
- (b) The experience required to show the maintenance of recency of aeronautical experience according to the requirements of this Part.

##### **2.2.5.2 TRAINING CONDUCTED IN AN APPROVED TRAINING ORGANISATION**

- (1) No person shall provide training for aviation personnel licences in a training organization which has not been approved by the Authority.
- (2) No person shall conduct training in an approved training organisation for a license, rating, authorisation or endorsement that allows an alternative means of compliance with the experience requirements prescribed in this Part without a special curricular approved by the Authority under Part 3 of these Directives.
- (3) Prior to authorizing an alternative means of compliance that permits an Approved Training Organization to conduct training, which does not meet the normal prescribed experience requirements, the Authority shall ensure that the approved training programme provides a level of competency at least equal to that provided by the minimum experience requirements for personnel not receiving such approved special curricula.

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- (4) Competency-based approved training for aircraft and RPAS maintenance personnel shall be conducted within an approved training organisation.
  - (5) As of 3 November 2022, competency-based approved training for remote flight crew shall be conducted within an approved training organization.

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

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

- (6) Approved training for flight crew and air traffic controllers shall be conducted within an approved training organization.

*Note.— The approved training considered in 1.2.8.3 relates primarily to approved training for the issuance of an Annex 1 licence or rating. It is not intended to include approved training for the maintenance of competence or for an operational qualification after the initial issuance of a licence or rating, as may be required for air traffic controllers or for flight crew, such as the approved training under Annex 6 – Operation of Aircraft, Part I – International Commercial Air Transport – Aeroplanes, 9.3, or Part III – International Operations – Helicopters, Section II, 7.3.*

### **2.2.5.3 USE OF FLIGHT SIMULATION TRAINING DEVICES**

- (1) Except as specified in paragraph (2) 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—
  - (a) The training, testing, and checking for which it is used;
  - (b) Each particular manoeuvre, procedure, or crewmember function performed; and
  - (c) 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.
- (2) 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.
- (3) Operators that have electronic or glass displays shall use simulators that have electronic or glass displays.
- (4) Operators that have standard instruments shall use simulators that have standard instruments.
- (5) Operators shall not conduct differences training on variant training on aircraft that have electronic glass displays with aircraft that have standard instruments.
- (6) The Authority may approve a device other than a flight simulation training device for specific purposes.

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

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

**2.2.5.4 KNOWLEDGE AND SKILL TESTS AND CHECKS: TIME, PLACE, DESIGNATED PERSONS AND FORMAT**

- (1) Knowledge and Skill Tests and Checks prescribed by or under Part 2 shall be given at times, places, and by persons duly authorised and designated by the Authority.
- (2) The knowledge test shall be performed in written or computer format, except for the knowledge test for an instructor licence or an additional instructor rating within the same aircraft category, which may be performed orally.
- (3) In addition to the written knowledge test, candidates may be questioned orally during the skill test, as appropriate.

**2.2.5.5 KNOWLEDGE AND SKILL TESTS AND CHECKS—PREREQUISITES, PASSING GRADES AND RETESTING AFTER FAILURE**

- (1) 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 experience requirements to take the knowledge or skill test.

*Note: The endorsement requirements may differ between licences and will appear in each licence section in Part 2 as applicable.*

- (2) An applicant for a knowledge or skill test shall receive written authorisation from the Authority to take, or retake, the test.
- (3) 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:
  - (a) Photograph;
  - (b) Signature;
  - (c) 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
  - (d) Actual residential address, if different from the applicant's mailing address.
- (4) The Authority will specify the minimum passing grades.
- (5) An applicant shall, before attempting the skill test for a licence or rating:
  - (a) Have passed the required knowledge test within the 24 calendar-month period preceding the month the applicant successfully completes the skill test; or

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- (b) If an applicant for an ATPL has passed the ATP knowledge test within a period of 7 years before successfully completing the ATP skill test, provided that the applicant is, and has been continuously, employed as a flight crewmember by a certificate holder under Part 9 at the time of the ATP skill test; and
- (c) When an applicant is required to provide an aircraft for a skill test, it must:
- (i) be airworthy and certificated;
  - (ii) be capable of performing all areas of operation appropriate to the rating sought and have no operating limitations, which prohibit its use in any of the areas of operation, required for the skill test.
  - (iii) not have operating limitations that prohibit the tasks required for the skill test,
  - (iv) be of national, foreign or military registry of the same category, class, and type if applicable, for the licence and/or rating for which the applicant is applying, with appropriate letter of authorisation for aircraft use in a skill test if applicant is not the owner of the foreign registered or military aircraft;
  - (v) have:
    - (A) fully functioning dual controls;
    - (B) at least two pilot stations with adequate visibility for each person to operate the aircraft safely;
    - (C) cockpit and outside visibility adequate to evaluate the performance of the applicant when an additional jump seat is provided for the examiner.
- (6) If the applicant is required to take a segmented skill test using a flight simulation training device and an aircraft, the flight simulation training device must be approved by the Authority.

**(7) Retesting after failure of a test.**

- (a) 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.
- (b) 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

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- iii. Demonstrate satisfactory instructional proficiency on stall awareness, spin entry, spins, and spin recovery to an examiner during the retest.

#### **2.2.5.6 RELIANCE ON TRAINING AND TESTING IN ANOTHER CONTRACTING STATE**

- (1) The Authority may rely on the training and testing system administered by another Contracting State as the basis for its own approved training curriculum, including the administration of written and skill test requirements for airman licences provided that the Authority has an agreement with the other Contracting State whose training and testing system is used.
- (2) The applicant shall apply for and receive written approval from the Authority prior to receiving training and testing in a system administered by another Contracting State.

#### **2.2.6 INSTRUCTOR REQUIREMENTS—GENERAL**

- (1) 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:
  - (a) Techniques of applied instruction;
  - (b) Assessment of student performance in those subjects in which ground instruction is given;
  - (c) The learning process;
  - (d) Elements of effective teaching;
  - (e) Student evaluation and testing, training philosophies;
  - (f) Training programme development;
  - (g) Lesson planning
  - (h) Classroom instructional techniques;
  - (i) Use of training aids, including flight simulation training devices as appropriate;
  - (j) Analysis and correction of student errors;
  - (k) Human performance relevant to flight instruction;
  - (l) Hazards involved in simulating system failures and malfunctions in the aircraft; and
  - (m) Principles of threat and error management.
- (2) The following applicants do not need to comply with paragraph (a) of this subsection –

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- (a) The holder of an instructor licence or authorisation issued under this part who has already passed the knowledge test in the areas of instructing;
  - (b) 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
  - (c) A person who provides evidence of an equivalent level of experience acceptable to the Authority.

#### **2.2.7 DESIGNATED EXAMINERS**

- (1) The Authority may designate private individuals to act as representatives of the Director General in examining, inspecting, and testing persons and aircraft for the purpose of issuing airmen and aircraft licences, ratings and certificates.
- (2) 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.
- (3) The Authority will issue each designated examiner a certificate of designated authority and a designee identification card specifying the kinds of designation for which the individual is qualified and the duration of the designation.

#### **2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE**

- (1) The licence shall be made of a suitable material as listed in ICAO Annex 1: 5.1.2.
- (2) The licence format shall be in a form and manner prescribed by the Authority.
- (3) The items required on the licence are indicated in IS:2.2.8.
- (4) The licence shall contain the expiration date of the licence and ratings.
- (5) The licence shall be issued in the language of Ghana and shall include an English translation.

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

*Note 1: See also Part 1: Section 1.3.*

##### **2.2.9.1 SUSPENSION OF A LICENCE, RATING AUTHORISATION OR VALIDATION CERTIFICATE**

- (1) If, the Authority determines that the interests of safety require that a licence, rating, authorisation or certificate must be suspended, the Authority may act as follows:

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- (a) If the Authority discovers facts indicating either a lack of competency or lack of qualification, the Authority may, require an applicant for or the holder of any licence, rating, authorisation, or validation certificate to retake all or part of the knowledge or practical tests required for any licence, rating, authorisation, or validation certificate at issue, renewal or re-issue.
    - (b) The Authority may suspend the validity of any such licence, rating, authorisation and or validation certificate pending the results of such re-testing.
  - (2) A person whose licence, 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 licence, rating, authorisation and or validation certificate in the following cases:
    - (a) During the investigation of an aircraft disaster or incident;
    - (b) In cases of proven misconduct, recklessness or gross negligence;
    - (c) If the holder has acted in contradiction to the privileges of the Licence; and or
    - (d) Pending the investigation of a suspected violation of these Directives or the aviation law under which these Directives are effected.
  - (4) Once the suspension is effective, the person involved shall immediately cease exercising the privileges of the affected licence, certificate, rating, or authorisation. The person involved shall surrender to the Authority all licences or validation certificates in his possession that are subject to the suspension within 7 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 licence or validation certificate, the Authority shall provide the person involved with a new licence or validation certificate omitting all ratings which are subject to the suspension.
  - (6) The Authority may cancel a suspension in the following cases:
    - (a) If person under suspension has taken and passed the knowledge or practical tests required for any licence, rating, or authorisation at issue indicated in (1);
    - (b) If the person involved has gained the required additional experience; or
    - (c) By revocation of the licence, rating, authorisation and validation certificate.
  - (7) Once the suspension has been cancelled, other than by revocation, the Authority shall issue the person involved a new licence or validation certificate.
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### **2.2.9.2 SUSPENSION OF A MEDICAL CERTIFICATE**

- (1) In case of doubt concerning the medical fitness of the holder of a medical certificate the Authority may determine that the person involved shall 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.
- (6) The validity of a medical certificate may also be suspended in case of a temporary rejection on medical grounds.
- (7) The person holding the medical certificate will be notified in writing of a suspension stating the reasons for that suspension.
- (8) The person holding the suspended medical certificate shall surrender the medical certificate in his possession to the Authority within 7 days after the date of receipt of the notification.
- (9) 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.
- (10) A suspension may be lifted if the medical examination intended in (1) has been passed satisfactorily. If a suspension is lifted, the person involved shall receive a new medical certificate unless the medical certificate was revoked.

### **2.2.9.3 REVOCATION OF LICENCES, RATINGS AUTHORISATIONS OR CERTIFICATES**

- (1) 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.
- (2) A licence, rating, authorisation or certificate may be revoked if the holder has made a statement contrary to the truth in obtaining or maintaining that licence, rating authorisation or certificate, or has provided incorrect data at a medical examination or test required for the issue, maintenance or renewal of the licence, rating, authorisation and certificate.
- (3) A licence, rating, authorisation or certificate shall be revoked in case of proven misconduct, recklessness or gross negligence. The holder of the licence will be notified in writing of the revocation with the reasons for the revocation.
- (4) 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 possession applicable to the revocation within 7 days after the date of receipt of notification from the Authority.
- (5) The person who has been denied the privilege to manipulate the controls of an aircraft by judgment of a court, shall be equally obliged to hand over to the Authority all licences and certificates in his possession within 7 days after he has taken cognisance of the judgment or after it can be reasonably assumed that he has taken cognisance thereof.



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

### 2.3.1 GENERAL

#### 2.3.1.1 APPLICABILITY

This Subpart prescribes the requirements for the issue, renewal and re-issue, if applicable, of pilot licences, ratings and authorisations.

#### 2.3.1.2 GENERAL RULE CONCERNING LICENCES, RATINGS AND AUTHORISATIONS

- (1) 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 part:
  - (a) aeroplane
  - (b) airship of a volume of more than 4 600 cubic metres
  - (c) free balloon
  - (d) glider
  - (e) helicopter
  - (f) powered-lift
- (2) The category of aircraft shall be included in the title of the licence itself, or endorsed as a category rating on the licence.
- (3) When the holder of a pilot licence seeks a licence for an additional category of aircraft, the Licensing Authority shall either:
  - (a) issue the licence holder with an additional pilot licence for that category of aircraft; or
  - (b) endorse the original licence with the new category rating, subject to the conditions of 2.1.2.

*Note.— The requirements for category ratings are given in terms of licensing specifications for pilots and at levels appropriate to the privileges to be granted to the licence holder.*

- (4) 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.
- (5) An applicant for any pilot licence or rating shall demonstrate, in a manner determined by the Licensing Authority, such requirements for knowledge and skill as are specified for that licence or rating.
- (6) ***Transitional measures related to the powered-lift category.*** Until 5 March 2022, the Authority may endorse a type rating for aircraft of the powered-lift category on an aeroplane or helicopter pilot licence. The endorsement of the rating on the licence shall indicate that the aircraft is part of the powered-lift category. The training for the type rating in the powered-lift category shall be completed during a course of approved training, shall take into account the previous experience of the applicant in an aeroplane or a helicopter as

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appropriate and incorporate all relevant aspects of operating an aircraft of the powered-lift category.

- (7) 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.
- (8) 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.
- (9) If applicable, the applicant shall pass a knowledge test on Air Law.
- (10) When the Authority renders valid a licence issued by another Contracting State, as an alternative to the issuance of its own licence, it shall establish validity by suitable authorization to be carried with the former licence accepting it as the equivalent of its own licence. When the Authority limits the authorization to specific privileges, the authorization shall specify the privileges of the licence which are to be accepted as its equivalent. The validity of the authorization shall not extend beyond the period of validity of the licence. The authorization ceases to be valid if the licence upon which it was issued is revoked or suspended.

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

- (11) As of 3 November 2022, a person shall not act as a flight crew member of an aircraft or as a remote flight crew member of a RPAS unless a valid licence is held showing compliance with the specifications of this Directives and appropriate to the duties to be performed by that person.
- (12) As of 3 November 2022, the flight crew member license shall have been issued by the State of Registry of the aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.
- (13) As of 3 November 2022, the remote pilot licence shall have been issued by the Licensing Authority of the State of the Operator of the RPAS or by any other Contracting State and rendered valid by the Authority of the State of the Operator of the RPAS.
- (14) As of 3 November 2022, remote pilots shall carry their appropriate licence while engaged in international air operations.

### **2.3.1.3 AUTHORITY TO ACT AS A FLIGHT CREW MEMBER**

- (1) A person shall not act as a pilot flight crewmember of an aircraft registered in Ghana unless a valid licence or a validation certificate is held showing compliance with the specifications of this Part and appropriate to the duties to be performed by that person.
- (2) 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.
- (3) During a skill test, the applicant acts as PIC but the safety pilot will intervene in safety situations.

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#### **2.3.1.4 CREDITING OF FLIGHT TIME**

- (1) 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.
- (2) 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 Ghana 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. Ghana 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.
- (3) 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.
- (4) The holder of a pilot licence, when acting as PIC under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

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

- (1) No person, having been issued a pilot licence shall act as pilot in command of an aircraft engaged in international commercial air transport operations if the licence holder has attained his 60th birthday or, in the case of operations with more than one pilot, where the other pilot is younger than 60 years of age, his 65th birthday.
- (2) No person above the age of 65 shall be issued with a Private Pilot Licence for General Aviation operations without a Class 2 Medical Certificate.
- (3) No person may serve nor may any AOC holder use a person as a required pilot flight crew member on an aircraft engaged in domestic commercial air operations if that person has reached their 65<sup>th</sup> birthday.
- (4) For multi-crew domestic public transport operations, where a pilot is operating over 60 years of age, the other pilot must be under the age of 60.
- (5) Check airmen who have reached their 65<sup>th</sup> birthday may continue their check airman functions, but may not serve as or occupy the position of a required pilot flight crew member on an aircraft engaged in domestic commercial air transport operations.

*Note.— Attention is drawn to 2.13.1.9 (c) on the validity period of Medical Assessments for pilots over the age of 60 who are engaged in commercial air transport operations.*

#### **2.3.1.6 RECENT EXPERIENCE AND PROFICIENCY REQUIREMENTS NON-COMMERCIAL AIR TRANSPORT OPERATIONS**

*Note: For commercial air transport operations, see GCAD Part 8.*

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- (1) In order to maintain recency and proficiency, all pilots shall meet the applicable requirements in (2) – (7) below.
  - (2) No person shall operate as PIC of an aircraft unless, that pilot has within 24 months, accomplished a flight review that includes:
    - (a) A review of the current general operating and flight rules of Part 8. 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;
    - (b) A proficiency check in the appropriate aircraft for the licence, ratings or authorisations held, unless within the past 24 months, the pilot has satisfactorily completed one of the following --
      - (i) A pilot proficiency check or practical test conducted by an authorised examiner of the Authority, for a pilot certificate, rating, or operating privilege.
      - (ii) A practical test conducted by an authorised examiner of the Authority 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
      - (iii) 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.

**(3) Aircraft type certificated for more than one pilot.**

- (a) 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 twelve (12) calendar months, he has passed a proficiency check in an aircraft, or in a flight simulation training device approved for the purpose, with an authorised representative of the Authority.
- (b) 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 has logged three (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.

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- (4) **Aircraft type certificated for single pilot and requiring a type rating on the pilot licence.** No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the twelve (12) calendar-months, he or she has passed a proficiency check with an authorised representative of the Authority in the category, class and type of aircraft to be operated, or in a flight simulation training device approved for the purpose.
- (5) **Recency for Carriage of Passengers.** No person may act as PIC or co-pilot of an aircraft carrying passengers unless, within the preceding ninety (90) days that pilot has:
- (a) 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.
  - (b) For a tailwheel aeroplane, made the 3 takeoffs and landings in a tailwheel aeroplane with each take-off and landing to a full stop.
  - (c) 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.
- (6) **IFR Operations.** A pilot shall not operate as PIC of an aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless within the preceding six months:
- (a) The pilot had an instrument proficiency check on the manoeuvres in the IR Skill Test and Proficiency Check contained in IS: 2.3.8.2, or
  - (b) 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.
- (7) **Night Vision Goggle Operations.** No person may act as PIC in a night vision goggle operation unless
- (a) 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 vision 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.
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- v. three night vision goggle operations, or when operating helicopters or powered-lifts, 6 night vision goggle operations; or
  - (b) Successfully completed a proficiency check with an authorised representative of the Authority

#### **2.3.1.7 RECORDING OF FLIGHT TIME**

Each person shall document and record the following time in a manner acceptable to the Authority as outlined in IS: 2.3.1.7:

- (a) Training and experience used to meet the requirements for a licence, rating and authorisation of Part 2; and
- (b) The experience required to show recent flight experience according to the requirements of Part 2.

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

##### **2.3.2.1 GENERAL**

- (1) 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 endorsements as follows:
  - (a) The appropriate aircraft category rating specified in this Part;
  - (b) The appropriate class rating when required in accordance with in this Part;
  - (c) A type rating when required in accordance with this Part;
  - (d) An authorisation when required in accordance with this Part; or
  - (e) An endorsement when required in accordance with this Part.
- (2) The applicant shall meet the appropriate requirements of this Part for the aircraft rating, authorisation or endorsement sought.
- (3) When an applicant demonstrates skill and knowledge for the initial issue or re-issue of a pilot licence, the category and ratings appropriate to the class or type of aircraft used in the demonstration will be entered on the licence.
- (4) 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 (1). This authorisation shall be limited in validity to the time needed to complete the specific flight.

##### **2.3.2.2 CATEGORY RATINGS**

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

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- (2) Category ratings shall not be endorsed on a licence when the category is included in the title of the licence itself.
- (3) **Initial category rating.** 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.
- (4) **Additional category ratings.**
- (a) Any additional category rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the category rating is granted.
- (b) The holder of a pilot licence seeking an additional category rating shall:
- (i) Meet the requirements of this Part appropriate to the privileges for which the category rating is sought;
  - (ii) Have an endorsement in his 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.
- (5) **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.
- (6) The validity, renewal or reissue of the category rating will coincide with the requirements for validity, renewal or reissue of the licence, and if applicable class or type rating contained in this Part.

### **2.3.2.3 CLASS RATINGS**

- (1) Class ratings shall be established for aeroplanes certificated for single-pilot operation and shall comprise:
- (a) single-engine, land;
  - (b) single-engine, sea;
  - (c) multi-engine, land;
  - (d) multi-engine, sea.

*Note.— The provisions of this paragraph do not preclude the establishment of other class ratings within this basic structure.*

- (2) The Authority shall establish a class rating for those helicopters and powered-lifts certificated for single-pilot operations and which have comparable handling, performance and other characteristics.
- (3) The class of aircraft, if applicable, shall be endorsed on the licence as a rating.

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- (4) **Initial class rating.** 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.
- (5) **Additional class ratings.**
- (a) Any additional class rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the class rating is granted.
  - (b) The holder of a pilot licence seeking an additional class rating shall:
    - (i) Meet the requirements of this Part appropriate to the privileges for which the class rating is sought;
    - (ii) Have an endorsement in his/her logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
    - (iii) Pass the required knowledge test unless the applicant holds a class rating within the same category of aircraft, at the same level of pilot licence at either the private or commercial levels; and
    - (iv) Pass the required skill test for the aircraft class rating being sought.
- (6) **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.
- (7) **Validity:** Subject to compliance with the requirements specified in this Part, the validity period of:
- (a) A multi-engine class rating is 1 calendar year.
  - (b) A single-engine class rating; balloon gas or balloon hot air rating is 2 calendar years.
- (8) **Renewal Timeframe**
- (a) 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.
  - (b) 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.
  - (c) 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.
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- (d) 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.
  - (9) **Re-issue.** If the class rating has expired the applicant shall:
    - (a) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
    - (b) Pass the required skill test for the applicable aircraft category and class.
    - (c) Where applicable the skill test shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.

#### **2.3.2.4 TYPE RATINGS**

- (1) Type ratings shall be established for:
  - (a) aircraft certificated for operation with a minimum crew of at least two pilots;
  - (b) helicopters and powered-lifts certificated for single-pilot operation except where a class rating has been issued under [2.3.2.3](#) and
  - (c) any aircraft whenever considered necessary by the Authority.

*Note 1.— Where a common type rating is established, it shall be only for aircraft with similar characteristics in terms of operating procedures, systems and handling.*

*Note 2.— Requirements for class and type ratings for gliders and free balloons have not been determined.*

- (2) When an applicant demonstrates skill and knowledge for the initial issue of a pilot licence, the category and the ratings appropriate to the class or type of aircraft used in the demonstration shall be entered on the licence.
- (3) **Circumstances under which class and type ratings are required.** Where the Authority issues a pilot licence to a pilot, the Authority shall not permit the holder of such licence to act either as pilot-in-command or as co-pilot of an aeroplane, an airship, a helicopter or a powered-lift unless the holder has received authorization as follows:
  - (a) the appropriate class rating specified in [2.3.2.3](#) or
  - (b) a type rating when required in accordance with the provisions of [2.3.2.3](#)
- (4) 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 the flight, such limitation shall be endorsed on the rating.
- (5) For the purpose of training, testing, or specific special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the licence holder by the Authority in place of issuing the class or type rating in

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accordance with 2.3.2.1. This authorization shall be limited in validity to the time needed to complete the specific flight.

- (6) The type rating shall be endorsed on the licence as a rating, including any limitations.
- (7) A pilot seeking an aircraft type rating to be added on a pilot licence shall:
  - (a) Have received training from an authorised instructor in the applicable type of aircraft and approved flight simulation training device of the applicable type of aircraft, or approved flight simulation training device of the applicable type of aircraft in the following:
    - i. Normal flight procedures and manoeuvres during all phases of flight;
    - ii. Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, systems and airframe
    - iii. Where applicable, instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure;
    - iv. Procedures for crew incapacitation and crew coordination including allocation of pilot tasks; crew cooperation and use of checklists; and
    - v. For the issue of an aeroplane category type rating, upset prevention and recovery training.
  - (b) Hold or concurrently obtain an instrument rating that is appropriate to the aircraft category, class or type rating sought;
  - (c) Have an endorsement in his logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
  - (d) Pass the required skill test at the ATPL level, applying crew resource management concepts, applicable to the aircraft category, class and type rating being sought;
  - (e) Applicants seeking a private or commercial licence in an aircraft that requires a type rating shall also complete the applicable portions of either the PPL or CPL skill test in conjunction with the ATPL skill test.
  - (f) Perform the skill test under instrument flight rules unless the aircraft used for the skill test is not capable of the instrument manoeuvres and procedures required for the skill test in which case the applicant may:
    - (i) Obtain a type rating limited to “VFR only,” and
    - (ii) Remove the “VFR only” limitation for each aircraft type in which the applicant demonstrates compliance with the ATPL skill test under instrument conditions.
- (8) **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.

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- (9) **Validity.** Subject to compliance with the requirements in this Part, the validity period of a type rating is 1 calendar year.
- (10) **Renewal.** For the renewal of a type rating the pilot shall:
- (a) 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.
  - (b) Have completed 10 route sectors within the 3 months preceding the expiry date.
  - (c) 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.
- (11) **Re-issue.** If the type rating has expired the applicant shall:
- (a) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
  - (b) Pass the required skill test for the appropriate category, type and if applicable class of aircraft.

#### **2.3.2.5 CATEGORY II AND III AUTHORISATION**

- (1) 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 as contained in this provision and IS:2.3.2.5.
- (2) **General.**
- (a) 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.
  - (b) 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.
- (3) **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.
- (4) **Experience.** The applicant for a Category II or III pilot authorisation shall have at least:
- (a) 50 hours of night flight time as PIC;
  - (b) 75 hours of instrument time under actual or simulated instrument conditions; and
  - (c) 250 hours of cross-country flight time as PIC.
- (5) **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.

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- (6) **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.
  - (7) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of a Category II and III authorisation is 6 months.
  - (8) **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.
  - (9) **Re-issue.** If the Category II or the Category III have been expired the applicant shall:
    - (a) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
    - (b) Pass the required skill test on the subjects listed in IS: 2.3.2.5.

#### **2.3.2.6 COMPLEX AEROPLANE ENDORSEMENT**

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

- (a) 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
- (b) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a high performance aeroplane.

#### **2.3.2.7 HIGH PERFORMANCE AEROPLANE ENDORSEMENT**

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

- (a) 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
- (b) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a complex aeroplane.

#### **2.3.2.8 HIGH ALTITUDE AIRCRAFT ENDORSEMENT**

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:

- (a) 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:

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- (i) High-altitude aerodynamics and meteorology
  - (ii) Respiration
  - (iii) Effects, symptoms, and causes of hypoxia and any other high-altitude sickness;
  - (iv) Duration of consciousness without supplemental oxygen
  - (v) Effects of prolonged usage of supplemental oxygen
  - (vi) Causes and effects of gas expansion and gas bubble formation
  - (vii) Physical phenomena and incidents of decompression; and
  - (viii) any other physiological aspects of high-altitude flight.
- (b) 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 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 NIGHT VISION GOGGLES ENDORSEMENT**

- (1) 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:
  - (a) Applicable portions of this Part and Part 8 of the Flight Standards Directives that relate to night vision goggle limitations and flight operations;
  - (b) 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;
  - (c) Normal, abnormal, and emergency operations of night vision goggle equipment;
  - (d) Night vision goggle performance and scene interpretation;
  - (e) Night vision goggle operation flight planning, including night terrain interpretation and factors affecting terrain interpretation;
- (2) 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:
  - (a) Preflight and use of internal external aircraft light systems for night vision goggle operations;

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- (b) Preflight preparation of night vision goggles for night vision goggle operations;
  - (c) Proper piloting techniques when using night vision goggles during the takeoff, climb, en-route descent and landing phases of flight; and
  - (d) Normal, abnormal, and emergency flight operations using night vision goggles.
- (3) The requirements under paragraphs (1) and (2) 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:
- (a) pilot proficiency check on night vision goggle operations conducted by the military.
  - (b) A pilot proficiency check on night vision goggle operations under Part 2 or part 8 conducted by an Examiner or Check Airman.
  - (c) A pilot proficiency check on night vision goggle operations conducted by a night vision goggle manufacturer or authorized instructor, when the pilot—
    - (i) Is employed by a government or law enforcement agency; and
    - (ii) Has logged at least 20 hours as pilot in command in night vision goggle operations.

### 2.3.3 STUDENT PILOTS

#### 2.3.3.1 GENERAL REQUIREMENTS

- (1) **Age.** An applicant for a student pilot authorisation shall be not less than 16 years of age.
- (2) **Knowledge.** The applicant for a student pilot authorisation shall receive and log ground training from an authorised instructor on the following subjects:
  - (a) Applicable sections of Part 2 for the category of aircraft to be flown and Part 8;
  - (b) Airspace rules and procedures for the aerodrome where the student will perform solo flight; and
  - (c) Flight characteristics and operation limitations for the make and model of aircraft to be flown.
- (3) **Pre-solo flight instruction.** Prior to conducting a solo flight, a student pilot shall have:
  - (a) 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.
  - (b) 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.

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- (4) **Solo flight requirements:** A student pilot shall not fly solo:
- (a) Unless holding at least a Class 2 Medical Certificate; and
  - (b) Unless under the supervision of, or with the authority of, a licensed flight instructor, and
  - (c) In international flight unless there is a special or general arrangement between Ghana and the intended State of flight.
- (5) **Privileges:** The Authority shall ensure that privileges granted to student pilots shall not constitute a hazard to air navigation.

**2.3.3.2 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—AEROPLANE CATEGORY**

An applicant for a student pilot authorisation in the aeroplane category shall receive training in the manoeuvres and procedures contained in IS: 2.3.3.2.

**2.3.3.3 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—HELICOPTER CATEGORY**

An applicant for a student pilot authorisation in the helicopter category shall receive training in the manoeuvres and procedures contained in IS: 2.3.3.3.

**2.3.3.4 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—POWERED-LIFT CATEGORY**

An applicant for a student pilot authorisation in the powered-lift category shall receive training in the manoeuvres and procedures contained in IS: 2.3.3.4.

**2.3.3.5 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—AIRSHIP CATEGORY**

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

**2.3.3.6 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—BALLOON CATEGORY**

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**

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.

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## 2.3.4 PRIVATE PILOT LICENCE

### 2.3.4.1 GENERAL REQUIREMENTS FOR THE ISSUANCE OF A LICENCE APPROPRIATE TO THE AEROPLANE, AIRSHIP, HELICOPTER AND POWERED LIFT CATEGORIES

- (1) **Age.**
  - (a) The applicant for a PPL in all categories other than balloon and glider shall not be less than 17 years of age.
  - (b) The applicant for a PPL in the balloon or glider category shall not be less than 16 years of age.
- (2) **Medical fitness.** The applicant for a PPL shall hold a current Class 2 Medical Certificate as issued under this Part.
- (3) **Knowledge areas.** The applicant for a PPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft to be included on the licence:
  - (a) **Air law:**
    - (i) Rules and regulations relevant to the holder of a PPL; rules of the air; appropriate air traffic services practices and procedures.
  - (b) **Aircraft general knowledge:**
    - (i) Principles of operation and functioning of powerplants, systems and instruments.
    - (ii) Operating limitations of aeroplanes and the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document.
    - (iii) For helicopter and powered lift, transmission (power-trains) where applicable;
    - (iv) For airship and balloon, physical properties of gases.
  - (c) **Flight performance and planning:**
    - (i) Effects of loading and mass distribution on flight characteristics; mass and balance calculations.
    - (ii) Use and practical application of take-off or launching, landing and other performance data.
    - (iii) Pre-flight and en-route flight planning appropriate to private operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; position reporting procedures; altimeter setting procedures; operations in areas of high-density traffic.
  - (d) **Human performance:**
    - (i) Human performance relevant to the appropriate category of aircraft.
    - (ii) Principles of threat and error management.

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



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- (e) **Meteorology:**
    - (i) Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions.
  - (f) **Navigation:**
    - (i) Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts.
  - (g) **Operational procedures:**
    - (i) Application of threat and error management to operational procedures.
    - (ii) Altimeter setting procedures.
    - (iii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations.
    - (iv) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards.
    - (v) In the case of the helicopter, and if applicable, powered lift, settling with power; ground resonance; retreating blade stall; dynamic roll-over and other operation hazards; safety procedures, associated with flight under visual meteorological conditions (VMC).
  - (h) **Principles of flight:**
    - (i) Principles of flight relating to the appropriate category of aircraft.
  - (i) **Radiotelephony:**
    - (i) Communications procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.
  - (4) **Knowledge testing.** The applicant for a PPL shall:
    - (a) 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.
    - (b) Pass the required written knowledge test on the knowledge areas listed in item (3).
  - (5) **Experience and flight instruction.** The applicant for a PPL shall:
    - (a) have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.; and
    - (b) have satisfactorily completed a course of approved training.
  - (6) **Skill.** The applicant for a PPL shall:
    - (a) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
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- (b) 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.
- (c) Have demonstrated the ability to—
- (i) Recognise and manage threats;
  - (ii) Operate the aircraft within its limitations;
  - (iii) Complete all manoeuvres with smoothness and accuracy;
  - (iv) Exercise good judgment and airmanship;
  - (v) Apply aeronautical knowledge; and
  - (vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.
- (7) **Privileges.**
- (a) 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.
  - (b) Before exercising the privileges at night, the licence holder shall have received dual instruction in aircraft within the appropriate category of aircraft in night flying, including take-off, landing and navigation.
- (8) **Specific requirements for the issue of the aeroplane category rating Experience.** 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 an aeroplane appropriate to the class rating sought. A total of 5 hours may be completed in a flight simulation training device as part of the total flight time of 40 hours or 35 hours, as the case may be.
- (9) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the licence is five (5) years.
- (10) **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.
- (11) **Reissue.**
- (a) If the private pilot licence has expired for a period of two or more years, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.
  - (b) If the pilot licence has not expired, but the holder has not exercised the privileges under the licence for a period of more than two or more years, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.
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#### **2.3.4.2 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE PPL - AEROPLANE CATEGORY**

(1) **Experience.**

- (a) The applicant for a PPL (A) shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as pilot of aeroplanes, appropriate to the class rating sought. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 or 35 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in flight simulation training device approved by the Authority.
- (b) 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 totaling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.
- (c) 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).

(2) **Flight Instruction.**

- (a) 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 totaling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.
- (b) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:
  - (i) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
  - (ii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
  - (iii) Control of the aeroplane by external visual reference;
  - (iv) Flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;
  - (v) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
  - (vi) Normal and cross-wind take-offs and landings;
  - (vii) Maximum performance (short field and obstacle clearance take-offs, short-field landings);

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- (viii) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;
  - (ix) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
  - (x) Emergency operations, including simulated aeroplane equipment malfunctions; and
  - (xi) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.
  - (xii) As further specified in IS: 2.3.4.2.
- (c) If the privileges of the PPL(A) are to be exercised at night, the applicant shall have received 4 hours dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.

*Note - The requirements for the skill test for the PPL(A) are included in IS: 2.3.4.2.*

### **2.3.4.3 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE PPL– HELICOPTER CATEGORY**

(1) **Experience.**

- (a) The applicant for a PPL (H) shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as a pilot of helicopters. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 or 35 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed under instruction in a flight simulation training device approved by the Authority.
- (b) 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 totaling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.
- (c) 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).

(2) **Flight Instruction.**

- (a) 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 totaling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.
- (b) 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;

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- (ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
  - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
  - (iv) Control of the helicopter by external visual reference;
  - (v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
  - (vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground;
  - (vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
  - (viii) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids including a flight of at least one hour;
  - (ix) Emergency operations, including simulated helicopter equipment malfunctions; autorotative approach and landing; and
  - (x) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.
  - (xi) If the privileges of the PPL (H) are to be exercised at night, the applicant shall have received 4 hours dual instruction in helicopters in night flying, including take-offs, landings and 1 hour of navigation.

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

#### **2.3.4.4 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE PPL - POWERED-LIFT CATEGORY**

**(i) Experience.**

- (a) 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 shall 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.
- (b) When the applicant has flight time as a pilot of aircraft in other categories, the Authority shall determine whether such experience is acceptable and if so, the extent to which the flight time in item (a) may be reduced.
- (c) 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 totaling not less than 270 km (150 NM) in the course of which full stop landings at two different aerodromes shall be made.

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- (2) **Flight Instruction.** The applicant shall have received not less than 20 hours dual instruction from an authorised instructor in at least the following areas:
- (a) Recognise threat and error management;
  - (b) Pre-flight operations, including mass and balance determination, powered lift inspection and servicing;
  - (c) Aerodrome and traffic operations, collision avoidance precautions and procedures;
  - (d) Control of the powered lift by external visual reference;
  - (e) Ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings – normal, out of wind and sloping ground;
  - (f) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
  - (g) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
  - (h) Emergency operations, including simulated powered lift equipment malfunctions; power of reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable; and
  - (i) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

*Note - The requirements for the skill test for the PPL-powered-lift category are included in IS 2.3.4.4.*

#### **2.3.4.5 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE PPL–AIRSHIP CATEGORY**

- (1) **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:
- (a) Three hours of cross-country flight training in an airship with a cross-country flight totaling not less than 45 kilometers (25 NM);
  - (b) 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;
  - (c) Three hours of instrument time; and
  - (d) Five hours as pilot assuming the duties of the PIC under the supervision of the PIC.
- (2) **Flight Instruction.** The applicant shall have received dual instruction from an authorised instructor in at least the following areas:
- (a) Pre-flight operations, including mass and balance determination, airships inspections and servicing;
  - (b) Ground reference manoeuvres;
  - (c) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

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- (d) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
  - (e) Control of the airships by external visual reference;
  - (f) Take-offs and landings and go-around;
  - (g) Maximum performance (obstacle clearance) take-offs;
  - (h) Flight by reference solely to instruments, including the completion of a level 180 degree turn;
  - (i) Navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;
  - (j) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and
  - (k) Radiotelephony procedures and phraseology.

*Note - The requirements for the skill test for the PPL–Airship are included in IS 2.3.4.5.*

#### **2.3.4.6 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE PPL–BALLOON CATEGORY**

- (1) **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.
- (2) **Flight Instruction.** The applicant shall have received dual instruction in free balloons from an authorised instructor in at least the following areas:
  - (a) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;
  - (b) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
  - (c) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
  - (d) Collision avoidance precautions;
  - (e) Control of a free balloon by external visual references;
  - (f) Recognition of and recovery from rapid descents;
  - (g) Cross-country flying using visual reference and dead reckoning;
  - (h) Approaches and landings, including ground handling; and
  - (i) Emergency procedures.

*Note - The requirements for the skill test for the PPL-Balloon category are included in IS 2.3.4.6.*

#### **2.3.4.7 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE PPL–GLIDER CATEGORY**

- (1) **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.

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- (2) **Flight instruction.** The applicant shall have received dual instruction in gliders from an authorised instructor in at least the following areas;
- (a) Pre-flight operations, including glider assembly and inspection;
  - (b) Techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;
  - (c) Traffic pattern operations, collision avoidance precautions and procedures;
  - (d) Control of the glider by external visual reference;
  - (e) Flight throughout the flight envelope;
  - (f) Recognition of, and recovery from, incipient and full stalls and spiral dives;
  - (g) Normal and cross-wind launches, approaches and landings;
  - (h) Cross-country flying using visual reference and dead reckoning; and
  - (i) Emergency procedures.
- (3) **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.

*Note- 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**

- (1) **Age.** The applicant for a CPL shall be not less than 18 years of age.
- (2) **Medical fitness.** The applicant for a CPL shall hold a current Class 1 Medical Certificate issued under this Part.
- (3) **Knowledge areas.** The applicant for a CPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft to be included on the licence:
  - (a) **Air law:**
    - (i) Rules and Directives relevant to the holder of a CPL;
    - (ii) Rules of the air, appropriate air traffic services practices and procedures.
    - (iii) Aircraft general knowledge;
    - (iv) Principles of operation and functioning of powerplants, systems and instruments;
    - (v) Operating limitations of the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;



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- (vi) Use and serviceability checks of equipment and systems of appropriate aircraft;
  - (vii) Maintenance procedures for airframes, systems and powerplants of appropriate aircraft;
  - (viii) For helicopters and powered-lift, transmission (power-trains) where applicable; and
  - (ix) For airships and balloons, physical properties and practical application of gases.
- (b) **Flight performance, planning and loading:**
- (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
  - (ii) Use and practical application of take-off or launching, landing and other performance data;
  - (iii) Pre-flight and en-route flight planning appropriate to commercial operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; and
  - (iv) In the case of helicopter and powered-lift, effects of external loading.
- (c) **Human performance:**
- (i) Human performance relevant to the appropriate aircraft type; and
  - (ii) Principles of threat and error management.
- (d) **Meteorology:**
- (i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
  - (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the moment of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions; and
  - (iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance.
- (e) **Navigation:**
- (i) Air navigation, including the use of aeronautical charts, instruments and navigation aids;
  - (ii) Understanding of the principles and characteristics of appropriate navigation systems; and
  - (iii) Operation of air borne equipment.
  - (iv) In the case of airships:
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- (A) Use, limitation and serviceability of avionics and instruments necessary for the control and navigation;
  - (B) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids; and
  - (C) Principles and characteristics of self-contained and external referenced navigation systems, operations of airborne equipment.
- (f) **Operation procedures:**
- (i) Application of threat and error management to operational performance;
  - (ii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
  - (iii) Altimeter setting procedures;
  - (iv) Appropriate precautionary and emergency procedures;
  - (v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods;
  - (vi) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft; and
  - (vii) In the case of the helicopter, and if applicable powered-lift, settling with power, ground resonance; retreating blade stall; dynamic roll-over and other operational hazards; safety procedures, associated with flight under VFR.
- (g) **Principles of flight:**
- (i) Principles of flight relating to the appropriate category of aircraft.
- (h) **Radiotelephony:**
- (i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure; and
  - (ii) As further specified in IS:2.3.5.2
- (4) **Knowledge testing.** The applicant for the CPL shall:
- (a) 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.
  - (b) Pass the required knowledge test on the knowledge subjects listed in IS 2.3.5.2
- (5) **Experience and flight instruction.** An applicant for a CPL shall:
- (a) have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
  - (b) have satisfactorily completed a course of approved training.
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- (6) **Skill.** The applicant for a CPL shall:
- (a) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
  - (b) Have demonstrated by passing a skill test the ability to perform as PIC of an aeroplane, the areas of operation described in IS:2.3.5.2 with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to
    - (i) Operate the aeroplane within its limitations;
    - (ii) Complete all manoeuvres with smoothness and accuracy;
    - (iii) Exercise good judgment and airmanship;
    - (iv) Apply aeronautical knowledge; and
    - (v) Maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (7) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of a CPL shall be:
- (a) To exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;
  - (b) To act as PIC in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
  - (c) To act as PIC in commercial air transportation in an aircraft within the appropriate aircraft category certificated for single-pilot operation;
  - (d) To act as co-pilot in aircraft within the appropriate aircraft category required to be operated with a co-pilot; and
  - (e) For the airship category, to pilot an airship under IFR.
- (8) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the licence shall be five (5) years.
- (9) **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.
- (10) **Reissue.**
- (a) If the commercial pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the commercial pilot skill test.
  - (b) If the commercial pilot licence has not expired, but the holder has not exercised the privileges under the licence for a period of more than two or more years, the applicant shall have received refresher training acceptable to the Authority and passed the private pilot skill test.
- (11) **Recommendation.**-If passengers are to be carried, the license holder should have completed not less than 10 hours of flight time as a pilot of gliders.
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### **2.3.5.2 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE CPL–AEROPLANE CATEGORY**

(1) **Experience.**

- (a) The applicant for a CPL (A) shall have completed not less than 200 hours of flight time, or 150 hours if completed during a CAA approved training course provided for in an Approved Training Organisation under Part 3, as a pilot of aeroplanes, of which 10 hours may have been completed in a flight simulation training device.
- (b) The applicant shall have completed in aeroplanes not less than:
  - (i) 100 hours as PIC or, in the case of a course of approved training, 70 hours as PIC;
  - (ii) 20 hours of cross-country flight time as PIC including a cross-country flight totaling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;
  - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;
  - (iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.
- (c) 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.
- (d) The applicant for a CPL (A) shall hold a PPL (A) issued under this Part.

(2) **Flight instruction.**

- (a) 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.
- (b) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
  - (i) Recognise and manage threats and errors;
  - (ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
  - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
  - (iv) Control of the aeroplane by external visual reference;
  - (v) Flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;
  - (vi) Flight with asymmetrical power for multi-engine class or type ratings;

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- (vii) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
  - (viii) Normal and cross-wind take-offs and landings;
  - (ix) Maximum performance (short field and obstacle clearance take-offs, short-field landings);
  - (x) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
  - (xi) Cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
  - (xii) Abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;
  - (xiii) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures;
  - (xiv) Communication procedures and phraseology; and.
  - (xv) Upset prevention and recovery training in actual flight.
- (c) 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 one (1) hour of navigation.
- (3) **Skill test.** The requirement for the skill test for the commercial pilot licence— aeroplane category are included in IS:2.3.5.2.

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

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

### **2.3.5.3 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE CPL— HELICOPTER CATEGORY**

- (1) **Experience.**
- (a) 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.
- (b) 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;
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- (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.
- (c) 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.
- (d) The applicant for a CPL (H) shall hold a PPL(H) under this Part.
- (2) **Flight instruction.**
- (a) 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:2.3.5.5.
  - (b) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
    - (i) Recognise and manage threats and errors;
    - (ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
    - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
    - (iv) Control of the helicopter by external visual reference;
    - (v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
    - (vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
    - (vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
    - (viii) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
    - (ix) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
    - (x) Cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
    - (xi) Abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing; and
    - (xii) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology
    - (xiii) As further specified in IS:2.3.5.5.

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- (c) 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.
- (3) **Skill test.** The requirement for the skill test for the commercial pilot licence—helicopter category are included in IS:2.3.5.3.

#### **2.3.5.4 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE CPL—POWERED-LIFT CATEGORY**

(1) **Experience.**

- (a) The applicant for a CPL powered-lift category shall have completed not less than 200 hours of flight time, or 150 hours if completed during a course of approved training provided for in an Aviation Training Organisation under Part 3, as a pilot of aircraft. The Authority may determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.
- (b) The applicant shall have completed in a powered-lift aircraft not less than:
  - (i) 50 hours as pilot in command;
  - (ii) 10 hours in cross-country flying as pilot-in command including a cross-country flight totaling not less than 540 km (300 NM) in the course of which full stop landing at two different aerodromes shall be made;
  - (iii) 10 hours of instrument instruction of which not more than 5 hours may be instrument ground time; and
  - (iv) If the privileges are to be exercised at night, 5 hours of night flight including 5 take-offs and landings as PIC.
- (c) 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.

(2) **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:

- (a) Recognise and manage threats and errors to minimise their negative effects;
- (b) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
- (c) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- (d) Control of the powered-lift by external visual reference;
- (e) 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;

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- (f) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
  - (g) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
  - (h) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
  - (i) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
  - (j) Emergency operations, including simulated powered-lift equipment malfunctions, where applicable; power of reconversion to autorotation; autorotative approach; transmission and interconnect driveshaft failure; and
  - (k) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.
- (3) **Skill test.** The requirement for the skill test for the commercial pilot licence—powered-lift category are included in IS:2.3.5.4.

#### **2.3.5.5 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE CPL - AIRSHIP CATEGORY**

- (1) **Experience.**
- (a) The applicant shall have completed not less than 200 hours of flight time as a pilot.
  - (b) The applicant shall have completed not less than:
    - (i) 50 hours as a pilot in airships;
    - (ii) 30 hours as PIC or PIC under supervision in airships, to include not less than:
      - (A) 10 hours of cross-country flight time; and
      - (B) 10 hours of night flight;
    - (iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and
    - (iv) 20 hours of flight training in airships on the areas of operation listed in item (b) below.
- (2) **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:
- (a) Recognise and manage threats and errors;
  - (b) Pre-flight operations, including mass and balance determination, airships inspection and servicing;
  - (c) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;



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- (d) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
  - (e) Control of the airships by external visual reference;
  - (f) Recognition of leak;
  - (g) Normal take-offs and landings;
  - (h) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;
  - (i) Flight under IFR;
  - (j) Cross-country flying using visual reference, dead reckoning and, where applicable, radio navigation aids;
  - (k) Emergency operations, including simulated airship equipment malfunctions;
  - (l) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
  - (m) Communications procedures and phraseology.
- (3) **Skill test.** The requirement for the skill test for the commercial pilot licence—airship category are included in IS:2.3.5.5.

#### **2.3.5.6 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE CPL—BALLOON CATEGORY**

- (1) **Experience.** The applicant shall have completed at least:
- (a) 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.
  - (b) 10 hours of flight training that includes at least 10 training flights in a free balloon on the areas of operation listed in (2) below, including at least:
    - (i) For a gas balloon rating:
      - (A) 2 training flights of 2 hours each in a gas balloon on the areas of operations appropriate to a gas balloon within 60 days prior to application for the rating;
      - (B) 2 flights performing the functions of PIC in a gas balloon on the appropriate areas of operation; and
      - (C) 1 flight involving a controlled ascent to 5,000 feet above the launch site.
    - (ii) For a hot air balloon rating:
      - (A) 3 training flights of 1 hour each in a balloon with an airborne heater on the areas of operation appropriate to a balloon with an airborne heater within 60 days prior to application for the rating;

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- (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.
- (2) **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:
- (a) Recognise and manage threats and errors;
  - (b) Technical subjects;
  - (c) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;
  - (d) Pre-flight lesson on a manoeuvre to be performed in flight;
  - (e) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
  - (f) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
  - (g) Collision avoidance precautions;
  - (h) Control of a free balloon by external visual references;
  - (i) Recognition of and recovery from rapid descents;
  - (j) Navigation and cross-country flying using visual reference and dead reckoning;
  - (k) Approaches and landings, including ground handling;
  - (l) Emergency procedures; and
  - (m) Post-flight procedures.
- (3) **Skill test.** The requirement for the skill test for the commercial pilot licence—balloon category are included in IS:2.3.5.6.

#### **2.3.5.7 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE CPL—GLIDER CATEGORY**

- (1) **Experience.** The applicant shall have completed at least:
- (a) 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 (2) 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 (2) below; or
  - (b) 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

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- (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 (2) below.
- (2) **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:
- (a) Recognise and manage threats and errors;
  - (b) Pre-flight preparation;
  - (c) Pre-flight procedures
  - (d) Aerodrome and gliderport operations;
  - (e) Launches and landings;
  - (f) Performance speeds;
  - (g) Soaring techniques;
  - (h) Performance manoeuvres;
  - (i) Navigation
  - (j) Slow flight and stalls
  - (k) Emergency procedures; and
  - (l) Post-flight procedures.
- (3) **Skill test.** The requirement for the skill test for the commercial pilot licence—glider category are included in IS:2.3.5.7.

## **2.3.6 MULTI-CREW PILOT LICENCE – AEROPLANE**

### **2.3.6.1 GENERAL REQUIREMENTS**

- (1) **Age.** The applicant for the MPL shall be not less than 18 years of age.
  - (2) **Medical fitness.** The applicant for the MPL shall hold a current Class 1 Medical Certificate issued under this Part.
  - (3) **Knowledge.** The applicant for the MPL shall meet the requirements specified in **2.3.6.2** for the ATPL appropriate to the aeroplane category.
- (1) **Knowledge testing.** The applicant for an MPL shall
- (a) 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.
  - (b) Pass the required written knowledge test on the knowledge areas specified in 2.3.6.2

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*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.*

- (2) **Experience and flight instruction.** The applicant shall:
- (a) have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
  - (b) have satisfactorily completed a course of approved training.
- (3) **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:
- (a) recognize and manage threats and errors
  - (b) smoothly and accurately, manually control the aeroplane within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;
  - (c) operate the aeroplane in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;
  - (d) perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight; and
  - (e) 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.
- (4) **Privileges.** The privileges of the holder of a multi-crew pilot licence shall be as follows:
- (a) 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 IS 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.
  - (b) 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 IS:2.3.8.2 appropriate to the aeroplane category.
  - (c) Before exercising the privileges of a commercial pilot licence in a single-pilot operation in aeroplanes, the licence holder shall have:

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- (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(3), 2.3.5.1(6), 2.3.5.2(1)(a) (with the exception of (i)) appropriate to the aeroplane category.

*Note 1: When a Contracting State grants single-pilot operation privileges to the holder of a multi-crew pilot 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.*

- (5) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the licence is five (5) years.
- (6) **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.
- (7) **Reissue.**
  - (a) 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.
  - (b) If the multi-crew pilot licence has not expired, but the holder has not exercised the privileges under the licence for a period of more than two or more years, the applicant shall have received refresher training acceptable to the Authority and passed the multi-crew pilot skill test.

#### **2.3.6.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE MULTI-CREW PILOT LICENCE—AEROPLANE CATEGORY**

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

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- (c) In addition to meeting the provisions of sub paragraph (a), 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.
- (2) **Flight instruction.** The applicant shall have received dual flight instruction in all the competency units specified in IS: 2.3.6.2 to the level required for the issue of the multi-crew pilot licence, to include the competency units required to pilot under instrument flight rules.
- (3) **Skill test.** The requirement for the skill test for the multi-crew pilot licence-aeroplane category are included in IS: 2.3.6.2.

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

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

## **2.3.7 AIRLINE TRANSPORT PILOT LICENCE**

### **2.3.7.1 GENERAL REQUIREMENTS**

- (1) **Age.** The applicant for an ATPL shall not be less than 21 years of age.
- (2) **Medical fitness.** The applicant for an ATPL shall hold a current Class 1 Medical Certificate issued under this Part.
- (3) **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:
- (a) **Air law:**
- (i) Rules and Directives relevant to the holder of an ATPL, rules of the air, appropriate air traffic services practices and procedures;
- (b) **Aircraft general knowledge:**
- (i) General characteristics and limitations of electrical, hydraulic, pressurisation and other aircraft systems; flight control systems, including autopilot and stability augmentation;
- (ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;
- (iii) Operating procedures and limitations of appropriate aircraft; effects of atmospheric conditions on aircraft performance in accordance to the relevant operational information from the flight manual;
- (iv) Use and serviceability checks of equipment and systems of the relevant category of aircraft;

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- (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);
  - (c) **Flight performance, planning and loading:**
    - (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
    - (ii) Use and practical application of take-off, landing and other performance data, including procedures for cruise control;
    - (iii) Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures
    - (iv) In the case of helicopter or powered-lift, effects of external loading on handling;
  - (d) **Human performance:**
    - (i) Human performance including principles of threat error management
  - (e) **Meteorology:**
    - (i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
    - (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the moment of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
    - (iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
    - (iv) In the case of aeroplane and powered-lift, practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jetstreams;
  - (f) **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;
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- (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;
  - (g) **Operational procedures:**
    - (i) Application of threat and error management to operational performance;
    - (ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
    - (iii) Precautionary and emergency procedures; safety practices;
    - (iv) Operational procedures for carriage of freight and dangerous goods;
    - (v) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;
    - (vi) In the case of helicopter, and if applicable, powered-lift, settling with power; ground resonance; retreating blade stall; dynamic roll-over and other operational hazards; safety procedures, associated with flight under VFR;
  - (h) **Principles of flight:**
    - (i) Principles of flight relating to the appropriate aircraft category;
  - (i) **Radiotelephony:**
    - (i) Communication procedures and phraseology; action to be taken in case of communication failure;
  - (4) **Knowledge testing.** The applicant for the ATPL shall:
    - (a) 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
    - (b) Pass the required written knowledge test on the knowledge subjects listed in item (3) above.
  - (5) **Experience and flight instruction.** An applicant for an ATPL shall:
    - (a) have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
    - (b) have satisfactorily completed a course of approved training.
  - (6) **Skill.** The applicant for an ATPL shall:
    - (a) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and
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- (b) Have demonstrated by passing a skill test the ability to perform, as PIC of an aircraft of the appropriate category required to be operated with a co-pilot, the following procedures and manoeuvres:
- (i) Pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;
  - (ii) Normal flight procedures and manoeuvres during all phases of flight;
  - (iii) Abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems and airframe;
  - (iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists; and
  - (v) In the case of the aeroplane and powered-lift, procedures and manoeuvres for instrument flight as described in 2.3.7, including simulated engine failure.
  - (vi) In the case of aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in this paragraph as PIC in a multi-engine aircraft.
- (c) Have demonstrated by passing a skill test, the ability to perform the areas of operation described in IS: 2.3.7.2, IS: 2.3.7.3, or IS: 2.3.7.4, with a degree of competency appropriate to the privileges granted to the holder of an ATPL, and to:
- (i) Operate the aeroplane within its limitations 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 judgment and airmanship, to include structured decision making and the maintenance of situational awareness; and
  - (vi) Communicate effectively with the other flight crewmembers and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures and use of checklists.
- (7) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of an ATPL shall be:
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- (a) 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
  - (b) In the case of the aeroplane and powered-lift categories, to exercise the privileges of the holder of an IR; and
  - (c) To act as PIC and co-pilot in commercial air transportation in an aircraft of the appropriate category, and class if applicable.
  - (d) 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 2.5.2.1 a), 2.5.2.2 and 2.5.2.3 as appropriate. Any limitation of privileges shall be endorsed on the licence.
- (8) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the licence is five (5) years. For renewal or reissue, see [2.2.1.7](#).
- (9) **Renewal.** An airline transport 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 and proficiency are current.
- (10) **Reissue.**
- (a) If the airline transport pilot licence has expired, the applicant shall have received refresher training acceptable to the Authority and passed the airline transport pilot skill test.
  - (b) If the airline transport pilot licence has not expired, but the holder has not exercised the privileges under the licence for a period of more than two or more years, the applicant shall have received refresher training acceptable to the Authority and passed the airline transport pilot skill test.

### **2.3.7.2 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE ATPL–AEROPLANE CATEGORY**

- (1) **Experience.**
- (a) The applicant for an ATPL (A) shall have completed not less than 1500 hours of flight time as a pilot of aeroplanes of which a maximum of 100 hours may have been completed in a flight simulation training device. The applicant shall have completed in aeroplanes not less than:
    - (i) 250 hours, either as PIC, or made up by not less than 100 hours as PIC and the necessary additional flight time as co-pilot performing, under the supervision of the PIC, the duties and functions of a PIC; provided that the method of supervision employed is acceptable to the Authority;

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- (ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as co-pilot performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;
  - (iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
  - (iv) 100 hours of night flight as PIC or as co-pilot.
  - (b) Holders of a CPL (H) will be credited with 50% of their helicopter flight time as PIC towards the flight time required in (a).
  - (c) The applicant shall have completed a CRM course on the subjects listed in IS:2.3.6.2
  - (d) The applicant for an ATPL (A) shall be the holder of a CPL (A) with instrument and multi-engine rating issued under this Part.
- (2) **Flight instruction.** The applicant for an ATPL (A) shall have received the dual flight instruction required for the issue of the CPL and the IR.

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

- (3) **Skill test.** The requirement for the skill test for the ATPL— aeroplane category are included in IS: 2.3.7.2.

### **2.3.7.3 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE ATPL - HELICOPTER CATEGORY**

- (1) **Experience.**
- (a) The applicant for an ATPL (H) shall have completed not less than 1000 hours of flight time as a pilot of helicopters of which a maximum of 100 hours may have been completed in a flight simulator. The applicant shall have completed in helicopters not less than:
    - (i) 250 hours, either as PIC, or made up by not less than 100 hours as PIC and the necessary additional flight time as co-pilot performing, under the supervision of the PIC, the duties and functions of a PIC; provided that the method of supervision employed is acceptable to the Authority;
    - (ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or as co-pilot performing, under the supervision of the PIC, the duties and functions of a PIC, provided that the method of supervision employed is acceptable to the Authority;
    - (iii) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time; and
    - (iv) 50 hours of night flight as PIC or as co-pilot.
  - (b) Holders of a CPL(A) will be credited with 50 percent of their aeroplane flight time as PIC towards the flight time required in (a).

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- (c) The applicant shall have completed a CRM course on the subjects listed in IS:2.3.7.3.
  - (d) The applicant for an ATPL(H) shall be the holder of a CPL(H) issued under this Part.
- (2) **Flight instruction.** The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.

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

- (3) **Skill test.** The requirement for the skill test for the ATPL—helicopter category are included in IS:2.3.7.3.

#### **2.3.7.4 EXPERIENCE, FLIGHT INSTRUCTION AND SKILL TEST FOR THE ATPL - POWERED-LIFT CATEGORY**

- (1) **Experience.**
- (a) The applicant for an ATPL- powered-lift category shall have completed not less than 1500 hours of flight time as a pilot of powered-lift. The Authority may determine whether experience completed under instruction in a flight simulator is acceptable as part of the total time of 1500 hours. The applicant shall have completed in powered-lift not less than:
    - (i) 250 hours, either as PIC, or made up by not less than 100 hours as PIC and the necessary additional flight time as co-pilot performing, under the supervision of the PIC, the duties and functions of PIC, in a method acceptable to the Authority.
    - (ii) 100 hours of cross-country flight time, of which not less than 50 hours shall be as PIC or as co-pilot performing under supervision of the PIC in a method acceptable to the Authority.
    - (iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time.
    - (iv) 25 hours of night time as PIC or co-pilot.
  - (b) The Authority may determine if pilot flight time in other aircraft categories may be credited toward meeting the 1500-hour flight time in item (a) above.
  - (c) The applicant for an ATPL powered-lift shall be the holder of a CPL powered-lift issued under this Part.
- (2) **Flight instruction.** The applicant for an ATPL powered-lift category shall have received the dual flight instruction required for the issue of the CPL powered lift category and for the issue of the instrument rating.

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

- (3) **Skill test.** The requirements for the skill test for the ATPL-powered lift category are included in IS:2.3.7.4.

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## 2.3.8 INSTRUMENT RATING

### 2.3.8.1 GENERAL REQUIREMENTS

- (1) **Age.** The applicant for an IR shall be not less than 17 years of age.
- (2) **Medical fitness.** The applicant for an IR shall hold either a Class 1 or 2 medical certificate issued under this Part as appropriate the level of licence held. The applicant for an IR holding a PPL shall have established his hearing acuity on the basis of compliance with the hearing requirements for the issue of a Class 1 Medical Certificate.
- (3) **Knowledge.** The applicant for an IR shall receive and log ground training from an authorised instructor on the following subjects:
  - (a) **Air law:**
    - (i) Rules and Directives relevant to flight under IFR; related air traffic services practices and procedures.
  - (b) **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.
  - (c) **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.
  - (d) **Human performance for the aircraft category being sought:**
    - (i) Human performance relevant to instrument flight in aircraft.
    - (ii) Principles of threat and error management.
  - (e) **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.
  - (f) **Navigation for the aircraft category being sought**
    - (i) Practical air navigation using radio navigation aids.
    - (ii) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids.
  - (g) **Operational procedures for the aircraft category being sought:**

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- (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.
  - (h) **Radiotelephony:**
    - (i) Communication procedures and phraseology as applied to aircraft operations under IFR; action to be taken in case of communication failure.
  - (4) **Knowledge testing.** An applicant for an IR shall:
    - (a) 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.
    - (b) Pass the required knowledge test on the knowledge subjects listed in item (3) above.
  - (5) **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.
  - (6) **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 (3)(g)(iii).
  - (7) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of an IR is 1 year.
  - (8) **Renewal:**
    - (a) For the renewal of a single-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS:2.3.8.2.
    - (b) For the renewal of a multi-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS: 2.3.8.2.
    - (c) 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.
  - (9) **Re-issue.** If the instrument rating has been expired, the applicant shall:
    - (a) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
    - (b) Pass the required skill test on the subjects listed in IS:2.3.8.2.

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

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- (10) The Authority shall not permit the holder of a pilot licence 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 the Authority. Proper authorization shall comprise an instrument rating appropriate to the aircraft category.

*Note.— The instrument rating is included in the airline transport pilot licence — aeroplane or powered-lift category, multi-crew pilot licence, and commercial pilot licence — airship category. The provisions of 2.3.8.2 do not preclude the issue of a licence having the instrument rating as an integral part thereof.*

#### **2.3.8.2 CIRCUMSTANCES UNDER WHICH AUTHORIZATION TO CONDUCT INSTRUCTION IS REQUIRED**

- (1) The Authority shall not permit the holder of a pilot licence 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:
- (a) a flight instructor rating on the holder's licence; or
  - (b) the authority to act as an agent of an approved organization authorized by the Authority to carry out flight instruction; or
  - (c) a specific authorization granted by the Authority which issued the licence.
- (2) 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.

#### **2.3.8.3 EXPERIENCE, FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK FOR THE INSTRUMENT RATING**

- (1) **Experience.**
- (a) The applicant for an IR shall hold a pilot licence with an aircraft category, and class rating if applicable, for the instrument rating sought.
  - (b) 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.
- (2) **Flight instruction.**
- (a) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in (1)(b) while receiving and logging dual instruction in aircraft from an authorised flight instructor.
  - (b) 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:

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- (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.
  - (c) If the privileges of the instrument rating are to be exercised on multi-engine aircraft, the applicant shall have received dual instrument flight instruction in such an aircraft from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in the operation of the aircraft solely by reference to instruments with one engine inoperative or simulated inoperative.
- (3) **Skill.** The applicant for an IR shall:
- (a) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
  - (b) Have demonstrated by passing a skill test the ability to perform the areas of operation described in IS:2.3.8.2 with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:
    - (i) Recognise and manage threats and errors;
    - (ii) Operate the aircraft within its limitations;
    - (iii) Complete all manoeuvres with smoothness and accuracy;
    - (iv) Exercise good judgment and airmanship;
    - (v) Apply aeronautical knowledge;
    - (vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured;
    - (vii) Understand and apply crew coordination and incapacitation procedures; and
    - (viii) Communicate effectively with the other flight crewmembers.
  - (c) Have demonstrated by passing a skill test the ability to operate multi-engine aircraft solely by reference to instruments with one engine inoperative, or simulated inoperative, described in IS:2.3.8.2, if the privileges of the instrument rating are to be exercised on such aircraft.

*Note - The skill test and proficiency check for the instrument rating is included in IS:2.3.8.2.*



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## 2.3.9 INSTRUCTORS FOR PILOT LICENSING

### 2.3.9.1 GENERAL REQUIREMENTS - APPLICABILITY

- (1) This Section prescribes the requirements for the issuance of instructor licences, ratings or authorisations, the conditions under which those ratings and authorisations are necessary, and the privileges and limitations on those ratings and authorisations.
- (2) All instructors shall read, speak, write and understand the English language. The following instructor licences, ratings and authorisations are issued under this part:
  - (a) Flight Instructor licence;
  - (b) Ground Instructor licence, with basic, advanced, and instrument ratings; and
  - (c) Instructor Authorisation for Flight Simulation Training.
- (3) The applicant, in order to carry out instruction for the multi-crew pilot licence, shall have also met all the instructor qualification requirements.

### 2.3.9.2 FLIGHT INSTRUCTOR LICENCE REQUIREMENTS, SKILL TEST AND PROFICIENCY CHECK

- (1) **Age.** The applicant for a flight instructor licence shall be of the appropriate age for the underlying licence to be held.
- (2) **Medical fitness.** The applicant for a flight instructor licence shall have a Class 1 medical certificate.
- (3) **Knowledge.**
  - (a) Receive and log training from an authorised instructor and pass a flight instructor knowledge test on:
    - (i) The aeronautical knowledge areas for a student pilot authorisation, private, commercial and airline transport pilot licences applicable to the aircraft category for which 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.
  - (b) Meet the requirements for fundamentals of knowledge instruction as listed in [2.2.6](#)
- (4) **Experience.** The applicant shall hold a licence with the aircraft category, and if applicable class or type rating, that is appropriate to the flight instructor rating sought as follows:
  - (a) For an instructor licence in the aeroplane category – hold either a CPL or ATPL aeroplane category with instrument rating and appropriate class or type ratings;
  - (b) For an instructor licence in the powered-lift category – hold either a CPL or ATPL powered-lift category with instrument rating and applicable, class or type rating;
  - (c) For an instructor licence in the helicopter category – hold either a CPL or ATPL helicopter category and any applicable class or type rating;

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- (d) For an instructor licence in the balloon category – hold a CPL balloon category with applicable class rating;
  - (e) For an instructor licence in the airship category – hold a CPL airship category and any applicable ratings;
  - (f) For an instructor licence in the glider category – hold a CPL glider category and any applicable ratings; and
  - (g) For an instructor instrument rating licence – hold an IR in the appropriate category of aircraft.
- (5) **Flight instruction.** Receive flight instruction from an authorised instructor in the areas of:
- (a) Flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
  - (b) Have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.
- (6) **Skill.**
- (a) 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;
  - (b) Pass the required skill test that is appropriate to the flight instructor licence 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 or type, for the aircraft rating sought; or
    - (ii) Approved flight simulation training device that is representative of the category, and if applicable class 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.
- (7) **Privileges, limitations and qualifications.**
- (a) A flight instructor is authorised within the limitations of that person's flight instructor licence, and pilot licence and ratings, to give training and endorsements that are required for, and relate to:
    - (i) A student pilot authorisation;
    - (ii) A pilot licence;
    - (iii) A flight instructor licence;
    - (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;

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- (ix) A knowledge test; and
  - (x) A skill test.
- (8) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of instructor licence is 2 years.
- (9) **Renewal.** A flight instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder -
- (a) Passes a skill test for -
    - (i) Renewal of the flight instructor licence; or
    - (ii) An additional flight instructor rating; or
  - (b) Presents to an Authority -
    - (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 licence or rating, and at least 80 percent of those students passed that test on the first attempt;
    - (ii) A record that shows that within the preceding 24 calendar months, service as a company check pilot, chief flight instructor, company check airman, or flight instructor in a Part 9 operation, or in a position involving the regular evaluation of pilots; or
    - (iii) A graduation certificate showing that the pilot has successfully completed an approved flight instructor refresher course consisting of ground training or flight training, or both, within the 90 days preceding the expiration month of his or her flight instructor licence.
  - (c) If a flight instructor accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her flight instructor licence—
    - (i) The Authority shall consider that the flight instructor accomplished the renewal requirement in the month due; and
    - (ii) The Authority shall renew the current flight instructor rating for an additional 24 calendar months from its expiration date.
  - (d) A flight instructor may accomplish the skill test required by this subsection in an approved course conducted by an ATO certified under Part 3.
- (10) **Reissue.** If the instructor licence has expired, the applicant shall:
- (a) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
  - (b) Pass the prescribed skill test.
- (11) **Additional flight instructor licences.** An applicant for an additional flight instructor licence shall meet the requirements listed in [2.3.9.2](#) that apply to the flight instructor rating sought.
- (12) **Flight instructor records.** A flight instructor shall—
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- (a) Sign the logbook of each person to whom that instructor has given flight training or ground training.
  - (b) 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.
  - (c) Retain the records required by this subsection for at least three (3) years.
- (13) **Flight instructor limitations and qualifications.** The holder of a flight instructor licence shall observe the following limitations and qualifications.
- (a) **Hours of training.** In any 24-consecutive-hour period, a flight instructor may not conduct more than 8 hours of flight training.
  - (b) **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 licence and flight instructor licence with the applicable category and if applicable class or type rating.
  - (c) For instrument flight training or for training for a type rating not limited to VFR, an appropriate instrument rating on his flight instructor rating and pilot licence.
  - (d) **Limitations on endorsements.** A flight instructor may not endorse the following:
    - (i) Student pilot's licence 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 licence 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

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- (B) The student has the appropriate solo cross country endorsement for the make and model of aircraft to be flown.
  - (iii) Student pilot's licence 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 in 8.4.11(2); or
  - (v) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of 8.4.10(2).
  - (e) **Training in a multiengine aeroplane or a helicopter.** A flight instructor may not give training required for the issuance of a licence 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.
  - (f) **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 licence unless that flight instructor—
      - (A) Holds a current ground or flight instructor licence with the appropriate rating, has held that licence for at least 24 months, and has given at least 40 hours of ground training; or
    - (ii) Holds a current ground or flight instructor licence with the appropriate rating, and has given at least 100 hours of ground training in a course which has been approved by the Authority.
    - (iii) Meets the eligibility requirements prescribed in 2.2.6.
    - (iv) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as a flight instructor.
    - (v) For training in preparation for a glider rating, has given at least 80 hours of flight training as a flight instructor.
  - (g) **Prohibition against self-endorsements.** A flight instructor may not make any self-endorsement for a licence, rating, flight review, authorisation, operating privilege, skill test, or knowledge test that is required by Part 2.
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- (h) **Category II and Category III instructions:** A flight instructor may not give training in Category II or Category III operations unless the flight instructor has been trained and tested in Category II or Category III operations as applicable.

*Note: Class B airspace as defined in Annex 11: 2.6.1 is IFR and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other.*

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

### 2.3.9.3 INSTRUCTOR AUTHORISATION FOR FLIGHT SIMULATION TRAINING

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

- (a) **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.
- (b) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of an authorisation are to carry out instruction in a flight simulation training device for the issue of a class or type rating in the appropriate category of aircraft.
- (c) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of an instructor authorisation for flight simulation training is 1 year.
- (d) **Renewal.** Renewal of the authorisation requires the successful completion of a proficiency check.
- (e) **Reissue.** If the authorisation has expired, the applicant must complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorisation privileges are sought.

### 2.3.9.4 GROUND INSTRUCTOR LICENCE

- (1) **Age.** The applicant for a ground instructor licence shall be at least 18 years of age.
- (2) **Knowledge.**
- (a) 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.

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- (iii) For an instrument rating, the knowledge for the instrument rating as listed in this Part.
    - (b) Meet the requirements of for fundamentals of knowledge instructing as listed in 2.2.6
  - (3) **Privileges.** The holder of a ground instructor licence may exercise the privileges appropriate to the licence and rating held.
    - (a) 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 licence 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 licence.
    - (b) A person who holds a ground instructor licence with an advanced rating is authorised to provide—
      - (i) Ground training in the aeronautical knowledge areas required for the issuance of any licence or rating;
      - (ii) Ground training required for any flight review; and
      - (iii) A recommendation for a knowledge test required for the issuance of any licence.
    - (c) 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.
    - (d) A person who holds a ground instructor licence is authorised, within the limitations of the licence and ratings on the ground instructor licence, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in (a) through (c) of this subsection.
  - (4) **Validity.** The validity period for a ground instructor licence is 1 year.
  - (5) **Renewal.** The applicant for renewal of a ground instructor licence shall provide to the Authority satisfactory evidence of at least three (3) months service as a ground instructor within the past twelve (12) months.
  - (6) **Reissue.**
    - (a) 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.
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- (b) If the ground instructor licence has not expired, but the holder has not exercised the privileges under the licence for a period of more than three months within the last twelve (12) months, the applicant shall have received refresher training acceptable to the Authority and passed the instructional delivery skill test.

#### **2.3.9.5 REQUIREMENTS AND SKILL TEST**

- (1) **Age.** An applicant for a designated pilot examiner shall be at least 21 years of age.
- (2) **Medical.** An applicant for a designated pilot examiner shall have a Class 1 medical certificate.
- (3) **General eligibility.** An applicant for a designated pilot examiner shall:
  - (a) Hold at least the licence and or class or type ratings as applicable for which examining authority is sought;
  - (b) 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;
  - (c) Have a reputation for integrity and dependability in the industry and the community;
  - (d) Have a good record as a pilot and flight instructor in regard to accidents, incidents, and violations; and
  - (e) Have pilot and instructor licence or ratings that have never been revoked for falsification or forgery.

#### **2.3.10 DESIGNATED PILOT EXAMINERS**

##### **2.3.10.1 GENERAL REQUIREMENTS**

- (1) **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.
- (2) **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.
- (3) **Maintaining currency.** After designation, a designated pilot examiner shall maintain currency by:
  - (a) Attending initial and recurrent training provided by the Authority, and
  - (b) Maintain a current and valid:
    - (i) Pilot licence, and if applicable, class or type ratings appropriate to the designation;
    - (ii) Flight instructor licence and ratings applicable to the designation; and



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- (iii) Class I medical certificate.
  - (4) **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.
  - (5) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of an examiner's designation is two (2) years.
  - (6) **Renewal.**
    - (a) Renewal will be at the discretion of the Authority.
    - (b) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS:2.3.10.1
  - (7) **Additional designations.** When the Authority deems it necessary for a designated pilot examiner to receive additional designations, the designated pilot examiner:
    - (a) Shall meet all the requirements in this Part for the designation;
    - (b) Need not take an additional knowledge test provided the designation is within the same aircraft category.
  - (8) The requirements for the designation of a pilot examiner are included in IS:2.3.10.1.

#### **2.3.10.2 EXPERIENCE REQUIREMENTS FOR PRIVATE PILOT EXAMINER (PPE)**

- (1) **Experience: PPE— Aeroplane Category.** The applicant shall have at least:
  - (a) A CPL(A), appropriate class rating(s) and in IR(A);
  - (b) A valid flight instructor licence with an aeroplane category and appropriate class rating(s).
  - (c) 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.
  - (d) 500 hours as a flight instructor in aeroplane which includes at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought.
- (2) **Experience: PPE—Helicopter Category.** The applicant shall have at least:
  - (a) A CPL(H), appropriate class rating(s).
  - (b) A valid flight instructor licence with a helicopter category and appropriate class rating(s).
  - (c) 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.

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- (d) 200 hours as a flight instructor in helicopters, as appropriate for the designation sought.
- (3) **Experience: PPE–Powered-Lift Category.** The applicant shall have at least:
- (a) A CPL powered-lift category with an instrument powered-lift rating.
  - (b) A valid flight instructor licence with a powered-lift category.
  - (c) 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.
  - (d) 500 hours as a flight instructor in powered-lift.
- (4) **Experience: PPE–Airship Category.** The applicant shall have at least:
- (a) A CPL airship category and any applicable class rating(s).
  - (b) A valid flight instructor licence with an airship category and any applicable class rating(s).
  - (c) 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.
  - (d) 100 hours as a flight instructor in airships.
- (5) **Experience: PPE–Balloon Category.** The applicant shall have at least:
- (a) A CPL balloon category and applicable class rating(s).
  - (b) A valid flight instructor licence with a balloon category and appropriate class rating(s).
  - (c) 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.
  - (d) 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.
- (7) **Experience: PPE - Glider Category.** The applicant shall have at least:
- (a) A CPL glider category rating.
  - (b) A valid flight instructor licence with a glider category rating.
  - (c) 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.
  - (d) 100 hours as a flight instructor in gliders.
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### 2.3.10.3 EXPERIENCE REQUIREMENTS FOR COMMERCIAL AND INSTRUMENT RATING PILOT EXAMINER (CIRE)

- (1) **Experience: CIRE–Aeroplane Category.** The examiner applicant shall have at least:
- (a) A commercial pilot licence with an aeroplane category rating, appropriate class rating(s) and an Instrument –Aeroplane rating.
  - (b) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 1,000 hours in aeroplanes, of which 300 hours were accrued within the past year;
    - (ii) 500 hours in the class of aeroplane for which the designation is sought;
    - (iii) 100 hours at night in aeroplanes;
    - (iv) 100 hours of instrument flight time in actual or simulated conditions; and
    - (v) For authority to conduct skill tests in large or turbine-powered aeroplanes—
      - (A) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought, and
      - (B) 25 hours for each additional type of large aeroplane for which designation is sought;
  - (d) 500 hours as a flight instructor in aeroplanes which include at least:
    - (i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought; and
    - (ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes.
- (2) **Experience: CIRE–Helicopter Category.** The examiner applicant shall have at least:
- (a) A commercial pilot licence with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.
  - (b) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year.
    - (ii) 100 hours of instrument flight time in actual or simulated conditions.
    - (iii) For authority to conduct skill tests in large or turbine-powered aeroplanes—

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- (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.
- (d) 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.
- (3) **Experience: CIRE–Powered-Lift Category.** The examiner applicant shall have at least:
- (a) A commercial pilot licence with a powered-lift category rating, any applicable class rating(s) and an Instrument –Powered-lift rating.
  - (b) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 1,000 hours in powered-lifts, of which 300 hours were accrued within the past year;
    - (ii) 100 hours at night in powered-lifts;
    - (iii) 100 hours of instrument flight time in actual or simulated conditions; and
    - (iv) For authority to conduct skill tests in large or turbine-engine powered-lifts—
      - (A) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought, and
      - (B) 25 hours for each additional type of large aeroplane for which designation is sought.
  - (d) 500 hours as a flight instructor in powered-lifts, which include at least:
    - (i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts.

#### **2.3.10.4 EXPERIENCE REQUIREMENTS FOR COMMERCIAL PILOT EXAMINERS (CE)**

- (1) **Experience: CE–Helicopter Category.** The examiner applicant shall have at least:
- (a) A commercial pilot licence with a helicopter category rating.
  - (b) A valid flight instructor certificate with a helicopter category rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year;

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- (ii) For authority to conduct skill tests in large helicopters—
    - (iii) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and
    - (iv) 25 hours for each additional type of large helicopter for which designation is sought.
  - (d) 250 hours as a flight instructor in helicopters, which include at least:
    - (i) 50 hours of instrument flight instruction in helicopters.
- (2) **Experience: CE–Airship Category.** The applicant shall have at least:
- (a) A CPL with airship category rating and any applicable class rating(s);
  - (b) A valid flight instructor licence with an airship category and any applicable class rating(s).
  - (c) 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.
  - (d) 100 hours as a flight instructor in airships.
- (3) **Experience: CE–Balloon Category.** The applicant shall have at least:
- (a) A CPL balloon category and applicable class rating(s).
  - (b) A valid flight instructor licence with a balloon category and applicable class rating(s).
  - (c) 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.
  - (d) Held a commercial pilot licence with balloon category rating and applicable class rating for at least 1 year prior to designation.
  - (e) 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.
- (4) **Experience: CE–Glider Category.** The applicant shall have at least:
- (a) A CPL with glider category rating.
  - (b) A valid flight instructor licence with a glider category rating.
  - (c) 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.
  - (d) 200 hours as a flight instructor, including 100 hours of flight instruction given in gliders.
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**2.3.10.5 EXPERIENCE REQUIREMENTS FOR AIRLINE TRANSPORT PILOT (ATPL) EXAMINERS (ATPE)**

- (1) **Experience: ATPE—Aeroplane Category.** The examiner applicant shall have at least:
- (a) An ATPL with an aeroplane category rating, appropriate class rating(s) and an Instrument- Aeroplane rating.
  - (b) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 1,500 hours in aeroplanes, of which 300 hours were accrued within the past year.
    - (ii) 500 hours in the class of aeroplane for which the designation is sought.
    - (iii) 100 hours at night in aeroplanes.
    - (iv) 200 hours in complex aeroplanes.
    - (v) 100 hours of instrument flight time in actual or simulated conditions.
    - (vi) For authority to conduct skill tests in large or turbine-powered aeroplanes:
      - A. 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and
      - B. 25 hours for each additional type of large aeroplane for which designation is sought.
  - (d) 500 hours as a flight instructor in aeroplanes which include at least:
    - (i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought;
    - (ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes; and
    - (iii) 150 hours flight instruction given for either a CPL(A) or ATPL(A) or an IR(A).
- (2) **Experience: ATPE—Helicopter Category.** The examiner applicant shall have at least:
- (a) An ATPL with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.
  - (b) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 1,200 hours in helicopters, of which 100 hours were accrued within the past year;
    - (ii) 100 hours of instrument flight time in actual or simulated conditions; and
    - (iii) For authority to conduct skill tests in large helicopters –

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- (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.
- (d) 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.
- (3) **Experience: ATPE–Powered-Lift Category.** The examiner applicant shall have at least:
- (a) An ATPL with a powered-lift category rating, any applicable class rating(s) and an Instrument –Powered-lift rating.
  - (b) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.
  - (c) 2,000 hours as PIC, which includes at least:
    - (i) 1,500 hours in powered-lifts, of which 300 hours were accrued within the past year;
    - (ii) 100 hours at night in powered-lifts;
    - (iii) 100 hours of instrument flight time in actual or simulated conditions; and
    - (iv) For authority to conduct skill tests in large or turbine-engine powered-lifts—
      - (A) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought; and
      - (B) 25 hours for each additional type of large aeroplane for which designation is sought.
  - (d) 500 hours as a flight instructor in powered-lifts, which include at least:
    - (i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts; and
    - (ii) 150 hours flight instruction given for either a CPL- powered-lift, ATPL – powered-lift or IR-powered-lift.

#### **2.3.10.6 EXPERIENCE REQUIREMENTS FOR FLIGHT INSTRUCTOR EXAMINER (FIE)**

The examiner applicant shall have at least:

- (a) 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

- 
- (b) Have held a Commercial Examiner or Commercial and Instrument Rating Examiner designation for at least a year prior to designation as a FIE.

## **2.3.11 FLIGHT ENGINEER LICENCE, RATINGS, INSTRUCTORS AND DESIGNATED FLIGHT ENGINEER EXAMINERS**

### **2.3.11.1 APPLICABILITY**

This section prescribes the requirements for the issue, renewal and re-issue of a flight engineers licence and ratings and for designated flight engineer examiners.

### **2.3.11.2 GENERAL RULE CONCERNING FLIGHT ENGINEER LICENCES AND RATINGS**

- (1) A person shall not act as a flight engineer of an aircraft registered in Ghana 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.
- (2) 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.
- (3) An applicant shall, before being issued with a flight engineer (FE) 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.
- (4) An applicant for renewal or re-issue of FE licence and class rating shall meet the requirements as are specified for the licence and rating in this Part.

### **2.3.11.3 AUTHORITY TO ACT AS A FLIGHT CREWMEMBER**

- (1) A person shall not act as a flight crewmember of an aircraft registered in Ghana 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.
- (2) No person may act as FE of an aircraft unless that person holds the appropriate FE licence and class rating for the aircraft to be flown.



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## 2.3.11.4 FLIGHT ENGINEER LICENCE, CLASS RATING AND EXPERIENCE REQUIREMENTS

### 2.3.11.4.1 FLIGHT ENGINEER LICENCE

- (1) **Age.** The applicant for a flight engineer licence and class rating shall not be less than 18 years of age.
- (2) **Medical.** The applicant for a flight engineer licence and class rating shall have a Class 2 medical certificate.
- (3) **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:
  - (a) **Air law:**
    - (i) Rules and Directives relevant to the holder of a flight engineer licence; rules and Directives governing the operations of civil aircraft pertinent to the duties of a flight engineer.
  - (b) **Aircraft general knowledge:**
    - (i) Basic principles of powerplants, gas turbines or piston engines, characteristics of fuels, fuel systems including fuel control, lubricants and lubrication systems, afterburners and injection systems, function and operation of engine ignition and starter systems.
    - (ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants, effects of atmospheric conditions on engine performance.
    - (iii) Airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue life and identification of structural damage and defects.
    - (iv) Ice and rain protection systems.
    - (v) 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.
  - (c) **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.

- (d) **Human performance:**

- (i) Human performance and CRM relevant to the flight engineer, including principles of threat and error management.

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

- (e) **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.

- (f) **Principles of flight:**

- (i) Fundamentals of aerodynamics.

- (g) **Radiotelephony:**

- (i) Radiotelephony procedures and phraseology.

- (h) **Navigation:**

- (i) Fundamentals of navigation.
  - (ii) Principles and operation of self-contained systems.

- (i) **Meteorology:**

- (i) Operational aspects of meteorology.

- (4) **Knowledge testing.** The applicant for a FE shall:

- (a) 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.
  - (b) Pass the required knowledge test.

- (5) **Experience.**

- (a) 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

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- (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.
  - (b) The holder of a CPL/IR(A) or ATPL(A) may be credited with 30 hours towards the 100 hours of flight time.
  - (c) 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.
- (6) **Skill.** The applicant for a flight engineer licence and class rating shall:
- (a) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and
  - (b) Have demonstrated by passing the required skill test, the ability to perform as flight engineer of an aircraft, the duties and procedures described (5)(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 judgment and airmanship;
    - (iii) Apply aeronautical knowledge;
    - (iv) Perform all the duties as part of an integrated crew with the successful outcome never in doubt; and
    - (v) Communicate effectively with the other flight crewmembers.
  - (c) Requirements for the skill test are given in IS:2.4.4.4.
  - (d) 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.
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- (7) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight engineer licence and class rating shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill.
  - (8) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer licence and class rating is five (5) years.
  - (9) **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.
  - (10) **Reissue.** If the Flight Engineer 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: 2.4.4.4.

#### **2.3.11.4.2 FLIGHT ENGINEER CLASS RATINGS**

- (1) 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:
  - (a) Reciprocating engine powered;
  - (b) Turbopropeller powered; and
  - (c) Turbojet powered.
- (2) **Additional ratings.** To be eligible for an additional class rating, an applicant shall:
  - (a) Successfully complete an approved flight engineer training course that is appropriate to the additional class rating sought;
  - (b) Pass the knowledge test that is appropriate to the class for which an additional rating is sought; and
  - (c) Pass the skill test that is appropriate to the class for which an additional rating is sought.

#### **2.3.11.4.3 RECENT EXPERIENCE REQUIREMENTS**

No person holding a flight engineer licence and class rating shall exercise the privileges of the flight engineer licence unless he has completed within the past 6 calendar months—

- (a) At least 50 hours of flight time as a flight engineer, or
- (b) Completed a proficiency check.

#### **2.3.11.4.4 FLIGHT ENGINEER: SKILL TEST AND PROFICIENCY CHECK**

The requirements for the skill test and proficiency check for the flight engineer licence are included in IS: 2.4.4.4.

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## 2.3.11.5 INSTRUCTORS FOR FLIGHT ENGINEER LICENCES

### 2.3.11.5.1 REQUIREMENTS FOR FLIGHT ENGINEER INSTRUCTOR LICENCE AND CLASS RATING

- (1) **Age.** An applicant for a flight engineer instructor licence and class rating shall be at least 18 years of age.
- (2) **Medical.** An applicant for a flight engineer instructor licence shall hold a Class 2 medical certificate.
- (3) **Knowledge.**
  - (a) An applicant for a flight engineer instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
  - (b) Any additional requirements as may be specified by the Authority.
- (4) **Experience.** The applicant for a flight engineer instructor licence and class rating shall hold at least a current and valid flight engineer licence and class rating for which the instructor licence is sought and have a minimum of 1,500 hours flight time as a flight engineer.
- (5) **Flight instruction.** Received flight instruction from an authorised instructor in the areas of:
  - (a) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and
  - (b) Have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.
- (6) **Privileges.** The privileges of a flight engineer instructor licence and class rating are to give flight and ground instruction to flight engineer licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (7) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer instructor licence is 2 years.
- (8) **Renewal.** A flight engineer instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the Authority evidence that he has within the past 12 months preceding the expiry date—
  - (a) Received refresher training acceptable to the Authority; or
  - (b) 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.
- (9) **Reissue.** If the flight engineer instructor licence has expired, the applicant shall:
  - (a) Have received refresher training acceptable to the Authority; and
  - (b) Pass a skill test on the areas of operation listed in IS 2.4.4.4.

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### **2.3.11.5.2 Instructor Authorisation for Flight Simulation Training**

- (1) 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, provided the applicant has at least 1 year experience as instructor in flight simulation training devices.
- (2) **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.
- (3) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of an authorisation are to carry out instruction in a flight simulation training device for the issue of a class or type rating in the appropriate category of aircraft.
- (4) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of an instructor authorisation for flight simulation training is 1 year.
- (5) **Renewal.** Renewal of the authorisation requires the successful completion of a proficiency check.
- (6) **Reissue.** If the authorisation has expired, the applicant must complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorisation privileges are sought.

## **2.4 FLIGHT NAVIGATOR LICENCE**

### **2.4.1 FLIGHT NAVIGATOR LICENCE, INSTRUCTORS AND DESIGNATED EXAMINERS**

#### **2.4.1.1 APPLICABILITY**

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

#### **2.4.1.2 GENERAL RULE CONCERNING FLIGHT NAVIGATOR LICENCES**

- (1) A person shall not act as a flight navigator of an aircraft registered in Ghana unless a valid licence is held showing compliance with the specifications of the Part 2 and appropriate to the duties to be performed by that person.
- (2) An applicant shall, before being issued with a flight navigator licence, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence.
- (3) An applicant shall for renewal or re-issue of a flight navigator licence, meet the requirements as are specified for that licence in this Part.

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### 2.4.1.3 AUTHORITY TO ACT AS A FLIGHT CREWMEMBER

- (1) A person shall not act as a flight crewmember of an aircraft registered in Ghana unless a valid licence is held showing compliance with the specifications of Part 2 and appropriate to the duties to be performed by that person.
- (2) No person may act as the flight crewmember of an aircraft unless that person holds the appropriate flight navigator licence.

### 2.4.2 FLIGHT NAVIGATOR LICENCE

#### 2.4.2.1 GENERAL REQUIREMENTS

- (1) **Age.** The applicant for a flight navigator licence shall not be less than 18 years of age.
- (2) **Medical:** The applicant for a flight navigator licence shall have a Class 2 medical certificate.
- (3) **Knowledge.** The applicant for a flight navigator licence shall receive and log ground training from an authorised instructor on the following subjects to the level of knowledge appropriate for the privileges of a flight navigator:
  - (a) **Air Law:**
    - (i) Rules and Directives relevant to the holder of a flight navigator licence; appropriate air traffic services practices and procedures.
  - (b) **Flight performance and planning:**
    - (i) Effects of loading and mass distribution on aircraft performance;
    - (ii) Use of take-off, landing and other performance data including procedures for cruise control; and
    - (iii) Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures.
  - (c) **Human performance:**
    - (i) Human performance relevant to the flight navigator, including principles of threat and error management.
  - (d) **Meteorology:**
    - (i) Interpretation and practical application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry; and
    - (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions.
  - (e) **Navigation.**

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- (i) Dead-reckoning, pressure-pattern and celestial navigation procedures; the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
  - (ii) Use, limitation and serviceability of avionics and instruments necessary for the navigation of the aircraft;
  - (iii) Use, accuracy and reliability of navigation systems used in departure, en-route and approach phases of flight; identification of radio navigation aids;
  - (iv) Principles, characteristics and use of self-contained and external-referenced navigation systems; operation of airborne equipment;
  - (v) The celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights; calibration of sextants; the completion of navigation documentation; and
  - (vi) Definitions, units and formulae used in air navigation.
  - (f) **Operational procedures:**
    - (i) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach.
  - (g) **Principles of flight:** principles of flight.
  - (h) **Radiotelephony:** radiotelephony procedures and phraseology.
- (4) **Knowledge testing.**
- (a) An applicant for a flight navigator licence shall have received an endorsement for the knowledge test from an authorised instructor who:
    - (i) Conducted the training on the knowledge subjects.
    - (ii) Certifies that the person is prepared for the required knowledge test.
  - (b) Pass the required knowledge test on the subjects listed in item (c).
- (5) **Experience.** The applicant for a flight navigator licence:
- (a) Shall present satisfactory evidence, such as a logbook, of the following experience:
    - (i) The applicant shall have completed in the performance of the duties of a flight navigator, not less than 200 hours of flight time acceptable to the Authority, in aircraft engaged in cross-country flights, using celestial and radio navigation and dead reckoning, including not less than 30 hours by night; and
    - (ii) The applicant shall produce evidence of having satisfactorily determined the aircraft's position in flight, and used that information to navigate the aircraft, as follows:
      - (A) By night – not less than 25 times by celestial observations; and
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- (B) By day – not less than 25 times by celestial observations in conjunction with self-contained or external-referenced navigation systems.
- (b) May be credited with 30 hours of flight time as the holder of a pilot licence towards the 200 hours of flight time required in paragraph (e)(1).
- (6) **Skill.** The applicant shall have demonstrated by passing the required skill test on the items in IS 2.5.4.2 the ability to perform as flight navigator of an aircraft with a degree of competency appropriate to the privileges granted to the holder of a flight navigator licence, and to:
- (a) Recognise and manage threats and errors;
  - (b) Exercise good judgment and airmanship;
  - (c) Apply aeronautical knowledge;
  - (d) Perform all duties as part of an integrated crew; and
  - (e) Communicate effectively with the other flight crewmembers.
- (7) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight navigator licence shall be to act as flight navigator of any aircraft.
- (8) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the licence is five (5) years.
- (9) **Recent experience requirements.** No person holding a flight navigator licence shall exercise the privileges of the flight navigator licence unless he has completed within the past 6 calendar months –
- (a) At least 30 hours of flight time as a flight navigator, and
  - (b) Completed a proficiency check.
- (10) **Renewal of the flight navigator licence.** For renewal of the flight navigator licence, the applicant shall pass a proficiency check on the areas of operation in IS 2.5.4.2
- (11) **Reissue.** If the Flight Navigator 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: 2.5.4.2.

#### **2.4.2.2 FLIGHT NAVIGATOR LICENCE: SKILL TEST AND PROFICIENCY CHECK**

The areas of operation for the skill test and proficiency check, are included in IS: 2.5.4.2.

#### **2.4.3 INSTRUCTOR REQUIREMENTS FOR FLIGHT NAVIGATORS**

##### **2.4.3.1 REQUIREMENTS FOR FLIGHT NAVIGATOR INSTRUCTOR LICENCE**

- (1) **Age.** An applicant for a flight navigator instructor licence shall be at least 18 years of age.

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- (2) **Medical.** An applicant for a flight navigator instructor licence shall hold a Class 2 medical certificate.
  - (3) **Knowledge.**
    - (a) An applicant for a flight navigator instructor licence shall have met the instructor knowledge requirements in 2.2.6 of this part; and
    - (b) Meet any additional requirements as may be specified by the Authority.
  - (4) **Experience.** The applicant for a flight navigator instructor licence shall hold at least a current and valid flight navigator licence for which the instructor licence is sought and have a minimum of 1,500 hours flight time as a flight navigator.
  - (5) **Flight instruction.** Received flight instruction from an authorised instructor in the areas of:
    - (a) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and
    - (b) Have practised instructional techniques in those procedures in which it is intended to provide flight instruction.
  - (6) **Privileges.** The privileges of a flight navigator instructor licence are to give flight and ground instruction to flight navigator licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
  - (7) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the flight navigator instructor licence is 2 years.
  - (8) **Renewal.** A flight navigator 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 has within the past 12 months preceding the expiry date –
    - (a) Conducted at least two flight exercises in an approved course for a flight navigator licence or class rating in which the aircraft position was determined by use of celestial, ground based and electronic navigational systems; or
    - (b) Received refresher training acceptable to the Authority.
  - (9) **Reissue.** If the flight navigation instructor licence has expired, the applicant shall:
    - (a) Have received refresher training acceptable to the Authority; and
    - (b) Passed a skill test on the areas of operation listed in IS: 2.5.4.2.

#### **2.4.4 DESIGNATED FLIGHT NAVIGATOR EXAMINERS**

##### **2.4.4.1 REQUIREMENTS**

- (1) **Age:** An applicant for a designated flight navigator examiner shall be at least 21 years of age.
- (2) **Medical.** An applicant for a designated flight navigator examiner shall hold a Class 1 medical certificate.
- (3) **Eligibility.** An applicant for a designated flight navigator examiner shall:

- 
- (a) Hold the flight navigator licence for which examining authority is sought;
  - (b) Have flight navigator instructor experience;
  - (c) Have a reputation for integrity and dependability in the industry and the community;
  - (d) Have a good record as a flight navigator in regard to accidents, incidents, and violations; and
  - (e) Have a flight navigator licence that has never been revoked for falsification or forgery.
- (4) **Knowledge:** The applicant for a designated flight navigator examiner shall pass a pre-designation knowledge test in the areas appropriate to the licence rating for which designation is sought.
- (5) **Skill test.** The applicant for a designated flight navigator examiner shall pass a skill test on the areas of operation listed in IS:2.5.6.2 conducted by an inspector of the Authority who holds a current and valid flight navigator licence.
- (6) **Maintaining currency.** After designation, a designated flight navigator examiner shall maintain currency by:
- (a) Attending initial and recurrent training provided by the Authority; and
  - (b) Maintain a current and valid:
    - (i) Flight navigator licence; and
    - (ii) Class 1 medical certificate.
- (7) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the flight navigator examiner's designation are to conduct skill tests and proficiency checks for a flight navigator licence as listed on the designated flight navigator examiner's certificate of designation and identification card.
- (8) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the designated flight navigator examiner's designation is 3 years.
- (9) **Renewal.**
- (a) Renewal will be at the discretion of the Authority.
  - (b) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS:2.5.6.2.

#### **2.4.4.2 SKILL TEST FOR DESIGNATED FLIGHT NAVIGATOR EXAMINER**

The requirements for a skill test for designated flight navigator examiners are included in IS: 2.5.6.2.

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## **2.5 AIRCRAFT MAINTENANCE ENGINEERS LICENSING, INSTRUCTORS AND DESIGNATED EXAMINERS**

### **2.5.1 GENERAL**

#### **2.5.1.1 APPLICABILITY**

This Subpart 2.5 prescribes the requirements for issuing the following licences and associated ratings and authorisations or authorisations for:

- (a) Aircraft Maintenance Engineers
- (b) Inspection Authorisations.
- (c) Aircraft Repairman Specialist.
- (d) Aircraft Maintenance Engineer Instructors;
- (e) Designated Maintenance Examiners.

### **2.5.2 AIRCRAFT MAINTENANCE ENGINEERS (AME)**

#### **2.5.2.1 APPLICABILITY**

This Subpart prescribes the requirements for issuance of an AME licence and associated ratings including certifying staff performing functions for an Approved Maintenance Organisation (AMO).

#### **2.5.2.2 ELIGIBILITY REQUIREMENTS: GENERAL**

- (1) An applicant for an AME licence and any associated rating shall—
  - (a) Be at least 18 years of age.
  - (b) Demonstrate the ability to read, write, speak, and understand the English language, as required by the Authority, by reading and explaining appropriate maintenance publications and by writing defect and repair statements.
  - (c) Comply with the knowledge, experience, and competency requirements prescribed for the licence and rating sought.
  - (d) Pass all of the prescribed tests for the licence and rating sought, within a period of 24 months.
- (2) A licensed AME who applies for an additional rating must meet the requirements of 2.5.2.5 and, within a period of 24 months, pass the tests prescribed by 2.5.2.4 and 2.5.2.7 for the additional rating sought.

#### **2.5.2.3 RATINGS**

- (1) The following ratings are issued under this subpart:
  - (a) Airframe.
  - (b) Powerplant.
  - (c) Avionics.

and are categorised as the following;

- i. Category A: Airframe and powerplant

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- ii. Category B1: Airframe and powerplant
  - iii. Category B2: Avionics
- (2) Other ratings to be determined by Authority include ratings such as; Category C: Base Maintenance

#### **2.5.2.4 KNOWLEDGE REQUIREMENTS FOR THE AME LICENCE**

- (1) The applicant for an aircraft maintenance engineer licence shall have passed a general knowledge test covering at least the following areas:
- (a) **Air law and airworthiness requirements.** Rules and Directives relevant to an aircraft maintenance engineer licence holder including –
    - (i) Applicable airworthiness requirements governing certification and continuing airworthiness of aircraft; and
    - (ii) Approved aircraft maintenance organisation procedures.
  - (b) **Natural science and aircraft general knowledge-**
    - (i) Basic mathematics;
    - (ii) Units of measurement; and
    - (iii) Fundamental principles and theory of physics and chemistry applicable to aircraft maintenance.
  - (c) **Aircraft engineering.** Characteristics and applications of the materials of aircraft construction including—
    - i. Principles of construction and functioning of aircraft structures,
    - ii. Fastening techniques;
    - iii. Powerplants and their associated systems;
    - iv. Mechanical, fluid, electrical and electronic power sources;
    - v. Aircraft instrument and display systems;
    - vi. Aircraft control systems; and
    - vii. Airborne navigation and communication systems.
  - (d) **Aircraft maintenance.** Tasks required to ensure the continuing airworthiness of an aircraft including—
    - (i) Methods and procedures for the overhaul, repair, inspection, replacement, modification or defect rectification of aircraft structures, components and systems in accordance with the methods prescribed in the relevant Maintenance Manuals and the applicable requirements of airworthiness.
  - (e) **Human performance:**
    - (i) Human performance, including principles of threat and error management, relevant to the duties of an aircraft maintenance licence holder.

- 
- (2) Each applicant for an AME licence or rating shall, after meeting the applicable experience requirement of 2.5.2.6 pass the applicable knowledge tests covering the construction, maintenance and systems of aircraft to the rating sought, the Directives in this Subpart, and the applicable provisions in Part 5 of Ghana Civil Aviation Flight Standards Directives. The basic principles covering the installation and maintenance of propellers are included in the powerplant test.
  - (3) The applicant shall pass each section of the test before applying for the oral and practical tests prescribed by IS: 2.6.2.7.
  - (4) Certifying staff must demonstrate by examination a level of knowledge acceptable to the Authority, in subject modules appropriate to the category for which an aircraft maintenance licence is issued or extended.
  - (5) The levels of knowledge are directly related to the complexity of certifications appropriate to the particular category; which means that category A must demonstrate a limited but adequate level of knowledge, where category B1 and B2 must demonstrate a complete level of knowledge in the appropriate subject modules. Category C certifying staff must meet the relevant level of knowledge for B1 or B2.
  - (6) Full or partial credit against the basic knowledge requirements and associated examination will be given for any other technical qualification considered by the Authority to be equivalent to the knowledge standard, contained in this Subpart.
  - (7) The basic knowledge examinations may be conducted by an appropriately approved training organisation or on behalf of the Authority except that the Authority may direct that all such examinations be conducted by appropriately approved training organisations.
  - (8) For an applicant being a person qualified by holding an academic degree in an aeronautical, mechanical or electronic discipline from a recognised university or other higher educational institute, the need for any examination will depend upon the course taken in relation to this Subpart.
  - (9) Knowledge gained and examinations passed during previous experiences, for example, in military aviation and civilian apprenticeships will be credited where the Authority is satisfied that such knowledge and examinations are equivalent to that required by this Subpart.
  - (10) **Type or task training and ratings.**
    - (a) Category A certifying staff are required to hold an appropriate aircraft maintenance licence prior to the grant of a certification authorisation on a specific aircraft type. Certification authorizations may only be granted following the satisfactory completion of the relevant category A specific task training on each aircraft type carried out by an appropriately approved Training Organisation or maintenance organisation.

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- (b) Category B1 and B2 certifying staff are required to hold an appropriate aircraft type rated maintenance licence prior to the grant of a certification authorisation on a specific aircraft type. Ratings will be granted following satisfactory completion of the relevant category B1 or B2 aircraft type training approved by the Authority or by an appropriately approved maintenance training organisation.
  - (c) Category C certifying staff are required to hold an appropriate aircraft type rated maintenance licence prior to the grant of a certification authorisation on a specific aircraft type. Ratings will be granted following satisfactory completion of the relevant category C aircraft type training approved by the Authority or by an appropriately approved maintenance training organisation except in the case of a category C person qualified by holding an academic degree as specified in this Subpart where the first relevant aircraft type training must be at the category B1 or B2 level.
- (11) Completion of approved aircraft task or type training, as required by sub-paragraphs (1) to (3) above must be satisfactorily demonstrated by an examination.

#### **2.5.2.5 KNOWLEDGE REQUIREMENTS FOR THE RATINGS**

- (1) The applicant for an airframe rating shall pass a knowledge test covering at least the following areas:
  - (a) Wood structures.
  - (b) Aircraft covering.
  - (c) Aircraft finishes.
  - (d) Sheet metal and non-metallic structures.
  - (e) Welding.
  - (f) Assembly and rigging.
  - (g) Airframe inspection
  - (h) Fuel systems.
  - (i) Aircraft landing gear systems.
  - (j) Hydraulic and pneumatic power systems.
  - (k) Cabin atmosphere control systems.
  - (l) Aircraft instrument systems.
  - (m) Communication and navigation systems.
  - (n) Aircraft fuel systems.
  - (o) Aircraft electrical systems.
  - (p) Position and warning systems.
  - (q) Ice and rain control systems.
  - (r) Fire protection systems.
- (2) The applicant for a powerplant rating shall pass a knowledge test covering at least the following areas:

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- (a) Reciprocating systems.
  - (b) Turbine engines.
  - (c) Engine inspection.
  - (d) Engine instrument systems.
  - (e) Engine fire protection systems.
  - (f) Engine electrical systems.
  - (g) Lubrication systems.
  - (h) Ignition and starting systems.
  - (i) Fuel metering.
  - (j) Engine fuel systems.
  - (k) Induction and engine airflow systems.
  - (l) Engine cooling systems.
  - (m) Engine exhaust and reverser systems.
  - (n) Propellers.
  - (o) Auxiliary power units.
- (3) The applicant for an avionics rating shall pass a knowledge test covering at least the following areas:
- (a) Aircraft electrical systems;
  - (b) Aircraft instrument systems;
  - (c) Automatic flight control systems;
  - (d) Aircraft radio and radio navigation systems,
  - (e) Aircraft navigation systems; and
  - (f) Aircraft systems or components – avionics.
- (4) The applicant shall pass each section of the test before applying for the skill tests prescribed by 2.5.2.8.

#### **2.5.2.6 EXPERIENCE REQUIREMENTS**

- (1) An applicant for an AME licence and associated ratings may qualify by either practical experience or through completion of approved training in an ATO.
- (2) **Practical experience.** Each applicant for an AME licence and rating(s) relying on practical experience shall provide documentary evidence, acceptable to the Authority, of the following experience in the inspection, servicing and maintenance of aircraft or its components—
  - (a) Airframe rating – 30 months.
  - (b) Powerplant rating – 30 months.
  - (c) Airframe and Powerplant ratings – 48 months.
  - (d) Avionics rating – 36 months.
  - (e) Airframe, Powerplant and Avionics ratings – 60 months.



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- (3) **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 training:
- (a) Airframe rating – 24 months.
  - (b) Powerplant rating – 24 months.
  - (c) Airframe and Powerplant ratings – 30 months.
  - (d) Avionics rating– 18 months in an ATO and 12 months practical work experience.
  - (e) Airframe, Powerplant and Avionics ratings – 42 months in an ATO and 12 months practical work experience.

#### **2.5.2.7 REQUIREMENTS FOR CERTIFYING PERSONNEL**

- (1) Certifying staff must meet a minimum civil aircraft maintenance experience requirement appropriate to the aircraft maintenance licence sought, which may be reduced by the Authority when satisfied that either an approved training or other appropriate technical training has been received.
- (2) For category B1 or B2 the experience must be practical which means being involved with a representative cross section of maintenance tasks on aircraft.
- (3) The minimum civil aircraft maintenance experience for reductions granted under paragraph (1) shall be three (3) years for all categories.
- (4) The minimum civil aircraft maintenance experience for category C is three (3) years qualified as a B1 or B2 certifying staff in line maintenance, or in base maintenance supporting a category C certifying staff, or, a combination of both. Alternatively, the minimum civil aircraft maintenance experience for category C certifying staff qualified by holding an academic degree in a technical discipline from a university or other higher educational institute accepted by the Authority is three(3) years on a representative selection of tasks directly associated with aircraft maintenance including twelve (12) months of observation of base maintenance tasks.
- (5) For all certifying staff, at least 1 year of the required experience must be recent maintenance experience on aircraft typical of the category or sub-category for which the aircraft maintenance engineer licence is sought.
- (6) To be considered as recent experience, at least 50% of the required 12 months experience should be gained within the 12 month period prior to the date of application for the aircraft maintenance engineer licence. The remainder of the experience should have been gained within the two years for the B1 or B2 and for the academic degree holder seven (7) years period prior to application.
- (7) Different aircraft types may be considered to be typical when the construction and operation of the airframe and powerplant systems including avionic systems are of similar technology.
- (8) Aircraft maintenance experience gained outside a civil aircraft maintenance environment will be accepted by the Authority when satisfied that such maintenance is equivalent to that required by this Subpart but additional experience of civil aircraft maintenance will be required to ensure understanding of the civil aircraft maintenance environment.

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- (9) Aircraft maintenance experience gained outside a civil aircraft maintenance environment can include aircraft maintenance experience gained in armed forces, coast guards, police etc. or in aircraft manufacturing.
  - (10) For category B1 or B2 certifying staff the additional experience of civil aircraft maintenance will be a minimum of 12 months.
  - (11) Regarding qualification as category B1 or B2 certifying staff the following experience options applies:
    - (a) 2 years recent practical maintenance experience on operating aircraft and completion of an approved basic training course; or
    - (b) years recent practical maintenance experience on operating aircraft and completion of training considered relevant by the Authority as a skilled worker, in a non-aviation technical trade; or
    - (c) years recent practical maintenance experience on operating aircraft for an applicant having no previous relevant technical training.
  - (12) Regarding qualification as category C certifying staff-
    - (a) The 3 years' experience qualified as a category B1 or B2 certifying staff means line maintenance certification experience as category B1 or B2 certifying staff, or as a qualified category B1 or B2 supporting the category C certifying staff in base maintenance, or, a combination of both.
    - (b) The 3 years' experience for an applicant holding an academic degree in a technical discipline, from a university or other higher educational institution accepted by the Authority means working in a civil aircraft maintenance environment on a representative selection of tasks including the observation of hangar maintenance, maintenance planning, quality assurance, record keeping, approved spare parts control and engineering development.

#### **2.5.2.8 SKILL REQUIREMENTS**

Each applicant for an AME licence or rating must pass a skill test on the licence or rating that he seeks. The tests cover the applicant's basic skill through a demonstration in performing practical projects on the subjects covered by the knowledge test for the licence or rating, and shall contain at least the subjects in the IS 2.5.2.7 appropriate to the licence or rating sought.

#### **2.5.2.9 PRIVILEGES AND LIMITATIONS**

- (1) Except as specified in paragraphs (5) and (6) of this subpart, 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 is rated, provided the licensed AME has—
  - (a) Satisfactorily performed the work at an earlier date;
  - (b) Demonstrated the ability to perform the work to the satisfaction of the Authority;
  - (c) Received training acceptable to the Authority on the tasks to be performed;  
or

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- (d) Performed the work while working under the direct supervision of a licensed AME or a licensed aviation repairman who is appropriately rated and has—
- (i) Had previous experience in the specific operation concerned; or
  - (ii) Received training acceptable to the Authority on the task to be performed.
- (4) Except as specified in paragraphs (5) and (6) of this subsection, a licensed AME with an airframe rating may after he has performed the 100-hour inspection required by Part 8 of this Directive on an airframe, or any related part or appliance, and approve and return it to service.
- (5) Except as specified in paragraphs (5) and (6) of this subsection, a licensed AME with a powerplant rating may perform the 100-hour inspection required by Part 8 of these Directives on a powerplant or propeller or any related part or appliance, and approve and return it to service.
- (6) Except as specified in paragraph (5) 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.
- (7) An AME with an airframe or powerplant or avionics rating may not—
- (a) 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 is rated unless he has satisfactorily performed the work concerned at an earlier date.
  - (b) Exercise the privileges of the licence unless the licensed AME understands the current instructions for continued airworthiness and the maintenance instructions for the specific operation concerned.
  - (c) Perform a major repair or major modification of a propeller.
- (8) An AME with an Airframe or Powerplant rating may not:
- (a) 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 9.4.3(1) any repair or alteration of instruments.
  - (b) 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.
- (9) The privileges of the holder of an aircraft maintenance licence specified in 4.2.2.1 shall be exercised only:
- (a) in respect of such:
    - (i) aircraft as are entered on the licence in their entirety either specifically or under broad categories; or

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- (ii) airframes and engines and aircraft systems or components as are entered on the licence either specifically or under broad categories; and or
    - (iii) aircraft avionic systems or components as are entered on the licence either specifically or under broad categories;
  - (b) provided that the licence holder is familiar with all the relevant information relating to the maintenance and airworthiness of the particular aircraft for which the licence holder is signing a Maintenance Release, or such airframe, engine, aircraft system or component and aircraft avionic system or component which the licence holder is certifying as being airworthy; and
  - (c) on condition that, within the preceding 24 months, the licence holder has either had experience in the inspection, servicing or maintenance of an aircraft or components in accordance with the privileges granted by the licence held for not less than six months, or has met the provision for the issue of a licence with the appropriate privileges, to the satisfaction of the Authority.
- (10) Certifications are made in accordance with the procedures of the approved maintenance organisation and within the scope of the authorisation. Certifying staff qualified in accordance with this Subpart, and holding a valid aircraft maintenance licence with, where applicable, the appropriate type ratings, shall be eligible to hold an AMO certification authorisation in one or more of the following categories:
- (a) **Category A** certifying staff authorisation permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification, within the limits of tasks specifically endorsed on the authorisation. The certification privileges are restricted to work that the authorisation holder has personally performed. Category A is sub-divided into sub-categories relative to combinations of aeroplanes, helicopters, turbine and piston engines.
  - (b) **Category B1** certifying staff authorisation permits the holder to issue certificates of release to service following line maintenance, including aircraft structure, powerplants and mechanical and electrical systems. Replacement of avionic line replaceable units, requiring simple tests to prove their serviceability, is also included in the privileges. Category B1 is sub-divided into sub-categories relative to combinations of aeroplanes, helicopters, turbine and piston engines. Category B1 certifying staff authorisation automatically permits certification in the appropriate Category A sub-categories
  - (c) **Category B2** certifying staff authorisation permits the holder to issue certificates of release to service following line maintenance on avionic and electrical systems. Category B2 certifying staff can qualify for any Category A sub-category as can any avionic mechanic subject to comply with the appropriate Category A sub-category requirements.
  - (d) **Category C** certifying staff authorisation permits the holder to issue certificates of release to service following base maintenance. The authorisation is valid for the aircraft in its entirety, including all systems.
- (11) Sub-paragraphs (2)(a) – (2)(c) provide an acceptable means of compliance to paragraph 2.5.2.8-
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- (a) Certifying staff may be granted a certification authorisation in relation to the basic categories or sub-categories held and any type ratings listed on the aircraft maintenance licence subject to the document being valid at the time of authorisation issue and the continuing validity requirements being met.
- (b) The following titles shown against each category designator below are intended to provide a readily understandable indication of the job function-
- (i) Category A: Line maintenance certifying Engineer.
  - (ii) Category B1: Line maintenance certifying Engineer – mechanical.
  - (iii) Category B2: Line maintenance certifying Engineer – avionics.
  - (iv) Category C: Base maintenance certifying engineer.
- (12) Individual certifying staff need not be restricted to a single category. Provided that each qualification requirement is satisfied, any combination of categories may be granted.
- (13) For the purposes of category A, minor scheduled line maintenance means any minor check up to but not including the A check where functional tests can be carried out by the aircrew to ensure system serviceability. In the case of an aircraft type not controlled by a maintenance programme based upon the ‘A’, ‘B’, ‘C’, ‘D’ check principle, minor scheduled line maintenance means any minor check up to and including the weekly check or equivalent.
- (14) The categories B1 and B2 authorisations permit certification of unscheduled defect rectification and scheduled maintenance checks normally completed in a line maintenance environment. The rectification of defects arising from these scheduled maintenance checks may also be certified. The category B1 authorisation also permits the certification of work involving avionic systems, providing the serviceability of the system can be established by a simple self-test facility, other than on-board test systems/equipment or by simple ramp test equipment. Defect rectification involving test equipment which requires an element of decision-making in its application – other than a simple go/no-go decision – cannot be certified. The category B2 will need to be qualified as category A in order to carry out simple mechanical tasks and be able to make certifications for such work.
- (15) The Category A and B1 subcategories are-
- (a) A1 and B1.1 Aeroplanes Turbine
  - (b) A2 and B1.2 Aeroplanes Piston
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- (c) A3 and B1.3 Helicopters Turbine
  - (d) A4 and B1.4 Helicopters Piston
- (16) The category C authorisation permits certification of scheduled base maintenance by the issue of a single certificate of release to service for the complete aircraft after the completion of all such maintenance. The basis for this certification is that the maintenance has been carried out by competent mechanics and both category B1 and B2 staff have signed for the maintenance under their respective specialization. The principal function of the category C certifying staff is to ensure that all required maintenance has been called up and signed off by the category B1 and B2 staff before issue of the certificate of release to service. Category C personnel who also hold category B1 or B2 qualifications may perform both roles in base maintenance.
- (17) Details of the certification privileges will be endorsed on or attached to the licence either directly or by reference to another document issued by this Authority.
- (18) When the Authority authorises an approved maintenance organisation to appoint non-licenced personnel to exercise the privileges of 2.5.2.8 the person appointed shall meet the requirements for the issue of the licence.

#### **2.5.2.10 DURATION OF AME LICENCE**

- (1) **Validity.** The duration of the AME licence is five (5) years.
- (2) **Renewal.** An AME licence that has not expired may be renewed for an additional five (5) years if the holder presents evidence to the Authority that he has within the past 24 months exercised the privileges of the licence.
- (3) **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

*Note- See IS: 2.6.2.7 for the AME General, and any associated ratings.*

#### **2.5.2.11 RECENT EXPERIENCE REQUIREMENTS**

- (1) A licensed AME shall not exercise the privileges of his licence or rating unless, within the preceding 24 months—
  - (a) The Authority has found that he is able to do that work; or
  - (b) For at least 6 months within the preceding 24 months—
    - (i) Served as an AME under his 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 programme acceptable to the Authority;

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- (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 (1)(b)(i) through (1)(b)(iv) of this subpart.
- (2) The Authority shall only renew a licence upon being satisfied with the renewal submission and upon the receipt of the statutory fee.
  - (3) The approved maintenance organisation issues the certification authorisation when satisfied that compliance has been established with the appropriate paragraphs of the Approval code of this Subpart. In granting the certification authorisation the approved maintenance organisation needs to be satisfied that the person holds a valid aircraft maintenance licence and may need to confirm such fact with the Authority. With regard to continued validity of the certification authorisation due regard should be given to the currency of maintenance experience and training in accordance with the Approved Maintenance Organisation Code.
  - (4) Where the Authority permits the use of the aircraft maintenance licence as the basis for the release of aircraft not required to be maintained by an approved maintenance organisation it will be necessary to demonstrate 6 months of maintenance experience in each 2 year period to ensure continuity of such licence. In the case where it is not possible to demonstrate such maintenance experience, the Authority will specify the conditions to re-establish continuity of the licence.

#### **2.5.2.12 ATO STUDENTS**

Whenever an ATO school, certified under these Directives, demonstrates to the Authority that a student is prepared to take the knowledge test prescribed by 2.5.2.4(1), that student may take those tests before meeting the applicable experience requirements of 2.5.2.4(5) and before passing the knowledge test prescribed by 2.3.2.4(4).

#### **2.5.2.13 MEDICAL FITNESS**

- (1) Certifying staff must not exercise the privileges of their certification authorisation if they know or suspect that their physical or mental condition renders them unfit to exercise such privileges, or whilst under the influence of drink or drugs.
- (2) Medical opinion considers that alcohol present in the blood stream in any quantity affects the ability to make decisions. It is the responsibility of all certifying staff to ensure that they are not adversely affected.
- (3) The use of any legally administered drug, or medicines, including those used for the treatment of a disease or disorder, which has been shown to exhibit adverse side effects, which affect the decision making ability of the user, should be administered according to medical advice. No other drugs should be used.
- (4) Certifying staff are responsible for ensuring that their physical condition does not adversely affect their ability to satisfactorily certify the work for which they are responsible. Eyesight, including, where applicable, colour vision, is particularly important in this respect.

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#### **2.5.2.14 EVIDENCE OF QUALIFICATION**

Certifying staff qualified in accordance with this Subpart will be issued with an aircraft maintenance licence by the Authority as evidence of one of the qualifications necessary for the grant of a certification authorisation. Certifying staff must be able to produce their licence if requested by an authorized person within a reasonable time.

#### **2.5.2.15 EQUIVALENT SAFETY CASES**

The Authority may exempt any person, required to be qualified in accordance with this Part from any requirement in this Directive when satisfied that a situation exists not covered by this Directive and subject to compliance with any supplementary condition(s) the Authority considers necessary to ensure equivalent safety.

#### **2.5.2.16 REVOCATION, SUSPENSION OR LIMITATION OF THE AIRCRAFT MAINTENANCE LICENCE**

- (1) The Authority may, on reasonable grounds after due enquiry, revoke, suspend or limit the aircraft maintenance licence or direct the approved maintenance organization to revoke, suspend or limit the certification authorisation if the Authority is not satisfied that the holder of the licence and authorisation is a fit and proper person to hold such licence and authorisation.
- (2) Before revoking or limiting the aircraft maintenance licence or directing the approved maintenance organization the Authority must first give at least 28 days' notice to the affected party or parties in writing of its intention so to do and of the reasons for its proposal and must offer the affected party or parties an opportunity to make representations and the Authority will consider those representations.
- (3) In the case where the Authority has determined that the safe operation of the aircraft is adversely affected the Authority may in addition to sub-paragraph (1) provisionally suspend the aircraft maintenance licence without prior notice until the sub-paragraph (1) procedure is complete.
- (4) For the Authority to consider a person to be not a "fit and a proper person" means that there is clear evidence that the person has knowingly carried out or been involved in one or more of the following activities-
  - (a) Obtained the aircraft maintenance licence and or the certification authorisation by falsification of submitted evidence.
  - (b) Failed to carry out requested maintenance combined with failure to report such fact to the organization that requested the maintenance.
  - (c) Failed to carry out required maintenance resulting from own inspection combined with failure to report such fact to the organization for whom the maintenance was intended to be carried out.
  - (d) Negligent maintenance
  - (e) Falsification of the maintenance record.



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- (f) The issue of a certificate of release to service knowing that the maintenance specified on the Certificate of Release to Service has not been carried out or without verifying that such maintenance has been carried out.
  - (g) Carrying out maintenance or issuing a certificate of release to service when adversely affected by alcohol or drugs.

#### **2.5.2.17 EXPIRED LICENCES**

- (1) A licence which has lapsed for less than 2 years will be considered for renewal without examination of the holder provided that the other requirements of this Subpart are met.
- (2) A licence which has lapsed for more than 2 years will not be renewed without examination of the holder. The amount of recent experience required will depend on the length of time since the licence lapsed and the nature of employment. Examination details appropriate to the circumstances will be notified by the Authority

#### **2.5.2.18 AIRCRAFT MAINTENANCE AUTHORISATION OR APPROVAL**

- (1) The Authority may issue to a qualified person an authorisation or an approval to carry out maintenance work on an aircraft. The applicant shall demonstrate to the Authority that he has adequate knowledge, qualification and experience relating to the maintenance function for which authorisation is sought.
- (2) Privileges and limitations for the maintenance function will be specified in the authorisation or approval granted.

#### **2.5.2.19 DISPLAY OF LICENCE**

Each person who holds an AME licence shall keep it within the immediate area where he 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.

### **2.5.3 INSPECTION AUTHORISATIONS (IA)**

*Note: While the Inspection Authorisation is not specifically in ICAO Annex 1, it does exceed the previous ICAO Annex 1 standards for a Type I AME which typically performed maintenance on small aircraft. See ICAO Doc 7192, D-1, Appendix 3 to Chapter 1.*

#### **2.5.3.1 APPLICABILITY**

This Subpart prescribes the requirements for issuance of inspection authorisations, and the conditions under which these authorisations are necessary.

*Note: See ICAO Doc 7192, D-1, Appendix 3 to Chapter 1.*

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### **2.5.3.2 ELIGIBILITY REQUIREMENTS: GENERAL**

- (1) An applicant for an Inspection Authorisation shall:
  - (a) Hold a currently effective and valid AME licence with both an airframe and powerplant rating, each of which is currently effective and has been in effect for a total of at least five (5) years.
  - (b) Have been actively engaged, for at least the two (2)-year period before the date of application, in the maintenance of certificated aircraft and maintained in accordance with these Directives.
  - (c) 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.
  - (d) Have available the equipment, facilities, and inspection data necessary to properly inspect airframes, aircraft engines, propellers, or any related component, part, or appliance.
  - (e) 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.
- (2) An applicant who fails the knowledge test prescribed in paragraph (1)(e) of this section may not apply for retesting until at least 90 days after the date he failed the test.

### **2.5.3.3 KNOWLEDGE REQUIREMENTS FOR THE INSPECTION AUTHORISATIONS (IA)**

The applicant for the IA shall pass a knowledge test covering at least the following areas:

- (a) Certification procedures for products and parts.
- (b) Airworthiness standards – aeroplane.
- (c) Airworthiness standards – rotorcraft.
- (d) Airworthiness directives.
- (e) Maintenance, preventive maintenance, rebuilding, and alteration.
- (f) Identification and registration marking.
- (g) Certification – Maintenance licensing.
- (h) General operating and flight rules.
- (i) Aircraft weight and balance.

### **2.5.3.4 INSPECTION AUTHORISATION: DURATION**

- (1) Each inspection authorisation is valid for two (2) years.
- (2) An inspection authorisation shall cease to be effective whenever any of the following occurs:
  - (a) The authorisation is surrendered, suspended, or revoked.

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- (b) The holder no longer has a fixed base of operation.
  - (c) The holder no longer has the equipment, facilities, and inspection data required by for issuance of his authorisation.
- (3) The holder of an inspection authorisation that is suspended or revoked shall return it to the Authority.

#### **2.5.3.5 RENEWAL OF AUTHORISATION**

- (1) To be eligible for renewal of an Inspection Authorisation for a 2-year period, an applicant shall, within fourteen (14) days prior to the expiration of the authorisation, present evidence to the Authority that the applicant still meets the requirements of 2.5.3.2 and show that during the current period of authorisation, the applicant has—
  - (a) Performed at least one annual inspection during each 3 month period the applicant held the authorisation;
  - (b) Performed inspections of at least two major repairs or major modifications for each 3 month period the applicant held the authorisation;
  - (c) 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;
  - (d) Performed any combination of paragraphs (1)(a) through (1)(c);
  - (e) 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
  - (f) Passed a knowledge test administered by the Authority to determine that the applicant's knowledge of applicable Directives and standards is current.
- (2) The holder of an inspection authorisation that has been in effect for less than 3 months before the expiration date need not comply with paragraph (1)(a) through (e) of this section.

#### **2.5.3.6 PRIVILEGES AND LIMITATIONS**

- (1) 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.
- (2) The holder of an Inspection Authorisation (IA) with a current and valid AME licence may:
  - (a) 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.
  - (b) 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 programme, and approve the aircraft for return to service.

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- (3) The holder of an IA with a current and valid AME licence may not:
- (a) Exercise the privileges of the authorisation unless he holds a current and valid AME licence with airframe and powerplant ratings.
  - (b) Inspect and approve for return to service any aircraft over 5,700 kg maximum take-off weight.
  - (c) Inspect and approve any airframe, aircraft engine, propeller, appliance, component, or part thereof, which is subject to a maintenance programme under Part 9.
  - (d) Inspect and approve for return to service any aircraft maintained in accordance with a continuous maintenance programme approved under Part 9.
  - (e) 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
  - (f) Exercise the privileges of the authorisation until he 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.

#### **2.5.4 AVIATION REPAIRMAN SPECIALIST (ARS)**

##### **2.5.4.1 APPLICABILITY**

- (1) This Subpart prescribes the requirements for issuance of Aviation Repairman Specialist (ARS) licences and ratings, and the conditions under which those licences and ratings are necessary.
- (2) The ARS licence shall only be issued to eligible employees who perform specialised tasks of either
  - (a) An AMO, or
  - (b) An AOC holder authorised to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with 9.4.3(1).

##### **2.5.4.2 AVIATION REPAIRMAN SPECIALIST LICENCE: ELIGIBILITY**

An applicant for an Aviation Repairman Specialist licence shall—

- (a) Be at least 18 years of age.
- (b) 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.
- (c) Demonstrate a level of knowledge relevant to the privileges to be granted and appropriate to the duties to be performed.

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- (d) By specially qualified to perform maintenance on aircraft or components thereof, appropriate to the job for which he was employed.
  - (e) 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 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 programme according to its maintenance control manual.
  - (f) 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.
  - (g) 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.

#### **2.5.4.3 RATINGS**

- (1) The following ratings may be issued under this subpart:
  - (a) Propeller;
  - (b) Computer;
  - (c) Instrument;
  - (d) Accessory;
  - (e) Components;
  - (f) Welding;
  - (g) Nondestructive Testing (NDT).
  - (h) Other as may be designated by the Authority.
- (2) No Aviation Repairman Specialist licence shall be issued with an airframe and or powerplant or avionics rating to circumvent the process of obtaining an AME licence.
- (3) Ratings for an applicant employed by an AMO or AOC holder shall coincide with the rating(s) issued at the AMO or approved for the AOC holder limited to the specific job for which the person is employed to perform, supervise, or approve for return to service.
- (4) An airman shall not be issued an Aviation Repairman Specialist licence for which the AMO has not been issued.

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- (5) Ratings for an applicant employed by an air operator shall coincide with the approved specific operating provisions and the approved maintenance control manual that identifies the air operator's authorisations limited to the specific job for which the person is employed to perform, supervise, or approve for return to service.

*Note: When employed by an air operator with the authorisation to perform and approve for return to service maintenance under an equivalent system in Part 9, an Aviation Repairman Specialist licence should correspond to the specialty shop or group in which they perform, supervise, or approve for return to service an aeronautical product or aircraft. For example, Hydraulic component overhaul, landing gear overhaul, special inspections, non-destructive testing, turbine disc overhaul, etc.*

#### **2.5.4.4 AVIATION REPAIRMAN SPECIALIST LICENCES: PRIVILEGES AND LIMITATIONS**

- (1) An Aviation Repairman 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 specialty area for which the Aviation Repairman Specialist is licensed and rated, but only in connection with employment by an AMO approved under Part 6 or an AOC holder that is authorised to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with 9.4.3(1).
- (2) An Aviation Repairman Specialist may not perform or supervise duties unless he understands the current instructions of the employing certificate holder and the instructions for continued airworthiness, which relate to the specific operations concerned.

#### **2.5.4.5 DISPLAY OF LICENCE**

Each person who holds an Aviation Repairman Specialist licence shall keep it within the immediate area where he 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 local law enforcement officer.

#### **2.5.4.6 DURATION OF LICENCE**

- (1) **Validity.**
- (a) The duration of the Aviation Repairman Specialist licence is five (5) years provided the licence holder is in the continual employ of the sponsoring AMO or an AOC in an aviation repairman position.
- (b) An Aviation Repairman Specialist licence must be surrendered to the Authority at the time the licence holder leaves the employ of the AMO or AOC.
- (2) **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 employer, to the satisfaction of the Authority, as able to satisfactorily maintain aircraft or components, appropriate to the job for which he is employed.

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## 2.5.5 AIRCRAFT MAINTENANCE ENGINEER INSTRUCTOR LICENCES

### 2.5.5.1 REQUIREMENTS FOR AIRCRAFT MAINTENANCE ENGINEER INSTRUCTOR LICENCE AND RATING

- (1) **Age.** An applicant for aircraft maintenance engineer instructor licence and rating shall be at least 21 years of age.
- (2) **Knowledge.**
  - (a) An applicant for an AME instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
  - (b) Any additional requirements as may be specified by the Authority.
- (3) **Experience.** The applicant for an AME instructor licence and rating shall hold at least a current and valid AME licence and rating for which the instructor licence is sought and have a minimum of three (3) years' experience as an AME.
- (4) **Privileges.** The privileges of aviation AME instructor licence are to give instruction to AME licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (5) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the aviation AME instructor licence is 2 years.
- (6) **Renewal.** An AME 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 has within the past 12 months preceding the expiry date –
  - (a) Conducted at least six exercises in an approved course for an AME licence or rating; or
  - (b) Received refresher training acceptable to the Authority.
- (7) **Reissue.** If the AME instructor 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.

## 2.5.6 DESIGNATED AIRCRAFT MAINTENANCE ENGINEER EXAMINER (DME)

### 2.5.6.1 GENERAL REQUIREMENTS

- (1) **Age.** An applicant for a Designated Aircraft Maintenance Engineer Examiner shall be at least 23 years of age.
- (2) **Medical.** There are no medical requirements for a maintenance engineer examiner.
- (3) **General eligibility.**
  - (a) Show evidence of a high level of aeronautical knowledge in the subject areas for AME certification in both reciprocating and turbine engine aircraft.
  - (b) Have held a valid AME licence for five (5) years with the ratings for which a designation is to be issued.

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- (c) Have been actively exercising the privileges of that AME certificate in the previous three (3) years.
  - (d) Have a good record as an AME and a person engaged in the industry and community with a reputation for honesty and dependability.
  - (e) The applicant must have a fixed base of operations adequately equipped to support testing--
    - (i) in each subject area in a required section for the designation held, and
    - (ii) all of the core competencies elements identified in Objective 2 of each subject area in the STS for General, Airframe and Powerplant ratings.
  - (f) 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.
  - (g) The applicant must have an airworthy aircraft, other aircraft, aircraft subassemblies, operational mock-ups, and other aids that may be used for testing.
  - (h) The applicant must have tools, equipment, material, current publications and the necessary apparatus, recommended by the aircraft manufacturers or accepted in the aviation industry, required to complete project assignments

#### **2.5.6.2 KNOWLEDGE**

The applicant shall pass a pre-designation test on the following:

- (a) Air Law and Directives for AME personnel.
- (b) Current practices for the fleet of aircraft to be utilised.
- (c) Best industry practices.
- (d) Recent improvement in technology, testing and tooling.

#### **2.5.6.3 SKILL**

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

#### **2.5.6.4 CURRENCY**

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



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- (3) The DME shall be observed by the Authority in the conduct of skill test at least once each 12 calendar months.

#### **2.5.6.5 PRIVILEGES**

The DME may conduct AME skill tests for which he/she is designated in accordance with the STS standards.

#### **2.5.6.6 VALIDITY**

The DME designation shall be valid for two (2) years.

#### **2.5.6.7 RENEWAL**

The DME designation may be renewed by Authority if:

- (a) The need for the designation remains valid.
- (b) The performance of the DME has been satisfactory.
- (c) The DME has attended the DME training conducted by the Authority in the previous 12 calendar months.

### **2.6 AIR TRAFFIC CONTROLLER LICENCES, CATEGORIES AND RATINGS**

#### **2.6.1 APPLICABILITY**

This section prescribes the requirements for the issue, renewal and re-issue of an air traffic controller licence and ratings.

#### **2.6.2 GENERAL**

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

#### **2.6.3 AIR TRAFFIC CONTROLLER LICENCE AND RATINGS**

##### **2.6.3.1 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) **Medical fitness:** Authority shall not permit a student air traffic controller to receive instruction in an operational environment unless that student air traffic controller holds a current Class 3 Medical Certificate.

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### 2.6.3.2 AIR TRAFFIC CONTROLLER LICENCE

- (1) **Age.** The applicant for an air traffic controller licence shall be not less than 21 years of age.
- (2) **Medical.** The applicant for an air traffic controller licence shall hold a Class 3 medical certificate issued under this Part.
- (3) **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:
  - (a) **Air law:**
    - (i) Rules and Directives relevant to the air traffic controller.
  - (b) **Air traffic control equipment:**
    - (i) Principles, use and limitations of equipment used in air traffic control.
  - (c) **General knowledge:**
    - (i) Principles of flight; principles of operation and functioning of aircraft, powerplants and systems; aircraft performances relevant to air traffic control operations.
  - (d) **Human performance:** including principles of threat and error management;  
*Note: Guidance material to design training programmes on human performance, including threat and error management can be found in ICAO Doc 9683, Human Factors Training Manual.*
  - (e) **Meteorology:**
    - (i) Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry.
  - (f) **Navigation:**
    - (i) Principles of air navigation; principles of limitation and accuracy of navigation systems and visual aids.
  - (g) **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.
- (4) **Knowledge testing.** An applicant for an air traffic controller licence shall:
  - (a) 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.
  - (b) Pass the required knowledge test.

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- (5) **Experience.** The applicant shall have completed an approved training course and not less than three (3) 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 2.6.3.3 will be credited as part of the experience specified in this paragraph.
  - (6) **Validity.** Subject to compliance with the requirement specified in this Part, the validity period of the licence is five (5) years.

### 2.6.3.3 AIR TRAFFIC CONTROLLER RATINGS

- (1) Air traffic controller ratings shall comprise the following categories:
  - (a) Aerodrome control rating.
  - (b) Approach control procedural rating.
  - (c) Approach control surveillance rating;
  - (d) Approach precision radar control rating.
  - (e) Area control procedural rating.
  - (f) Area surveillance control rating.

*Note. The World Meteorological Organisation has specified requirements for personnel making meteorological observations which apply to air traffic controllers providing such a service.*

- (2) **Knowledge.** The applicant for an air traffic controller rating shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an air traffic controller rating on the subjects as specified below for each rating sought:
  - (a) Aerodrome control rating:
    - (i) Aerodrome layout, physical characteristics and visual aids.
    - (ii) Airspace structure.
    - (iii) Applicable rules, procedures and source of information.
    - (iv) Air navigation facilities.
    - (v) Air traffic control equipment and its use.
    - (vi) Terrain and prominent landmarks.
    - (vii) Characteristics of air traffic.
    - (viii) Weather phenomena.
    - (ix) Emergency and search and rescue plans.
  - (b) 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.

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- (vi) Characteristics of air traffic and traffic flow.
  - (vii) Weather phenomena.
  - (viii) Emergency and search and rescue plans.
- (c) Approach control surveillance, approach precision radar control and area control surveillance ratings. The applicant shall meet the requirements specified in (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 services, as appropriate, including procedures to ensure appropriate terrain clearance.
- (2) **Knowledge testing.** An applicant for an air traffic controller rating shall:
- (a) 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
  - (b) Pass the required knowledge test.
- (3) **Experience.** The applicant for an air traffic controller licence shall have:
- (a) Satisfactorily completed an approved training course.
  - (b) 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 (3) 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.
  - (c) If the privileges of the approach control surveillance rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated approach radar controller.
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- (d) The experience specified under (3)(b)(ii) shall have been completed within the 6-month period immediately preceding application.
- (4) **Skill.** The applicant shall have demonstrated by passing the required skill test, at a level appropriate to the privileges being granted, the skill, judgment and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

*Note: Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services – Training, ICAO Doc 9869, PANS-TRG, Chapter 3, Attachment C, in Part II, Chapter 2, of the Human Factors Training Manual, ICAO Doc 9683 and in Cir 314, Threat and Error Management in Air Traffic Control.*

(5) **Privileges and limitations.**

(a) Subject to compliance with the requirements specified in this Part, the privileges of the holder of an air traffic controller licence with the following applicable rating(s) shall be:

- (i) Aerodrome control rating: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated.
- (ii) Approach control procedural rating: to provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.
- (iii) Approach control surveillance rating: to provide and/or supervise the provision of approach control service with the use of applicable ATS surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.

*Note: Subject to compliance with the provisions of (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.
  - (vi) Area radar control surveillance rating: to provide and/or supervise the provision of area control service with the use of an ATS surveillance system, within the control area or portion thereof, for which the licence holder is rated.
- (b) Before exercising the privileges indicated in (d)(1), the licence holder shall be familiar with all pertinent and current information.
- (c) A holder of an air traffic controller licence and rating(s) shall not provide instruction in an operational environment unless the licence holder has received proper authorisation from the Authority.

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(6) **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 six (6) months. A rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

(7) **Competency Checks**

No person shall act as an Air Traffic Controller unless he has, within the past twelve (12) calendar months, passed a competency check approved by the Authority and shall furnish a copy to the Authority.

(8) **Recency Requirements**

(a) An air traffic controller shall, for the purpose of meeting the requirement for recent experience in relation to a valid rating at a particular time, exercise the privileges associated with that rating for at least 10 hours within the preceding 30 days, of which at least 5 hours shall be exercised within each like-type group within that rating.

(b) Despite paragraph (a) an air traffic controller who has successfully passed a validation or re-validation assessment conducted by an Authorised Check Controller within the preceding 30 days shall be taken to have satisfied the requirement for recent experience.

(c) An air traffic controller who does not satisfy the recency requirement at a particular time in relation to an endorsement shall be taken to satisfy that requirement within the preceding 30 days, after he has undergone any retraining required by the Air Navigation Service Provider and has been assessed by the Service Provider as competent in performing the function and duties required by the relevant rating(s), or he has performed the relevant function and duties at the aerodrome or in relation to the airspace to which the endorsement relates under supervision for a period of time deemed necessary and appropriate by the Service Provider. Following a period of supervision, the controller shall be subject to an assessment of his competence before returning to operational duties.

(9) **Recording of Air Traffic Controller Qualifications**

The Air Navigation Service Provider shall record all qualifications in its records maintained for each Air Traffic Controller, the completion of each of the ratings and competency checks qualifications required by this Part.

(10) **Monitoring of Air Traffic Controller Training and Checking Activities**

(a) To enable adequate supervision of its training and checking activities, the Air Navigation Service Provider shall forward to the Authority at least 120 hours prior to the scheduled activity, the dates, report times and report location of all-

(i) Training for which a curriculum is approved; and

(ii) Competence checks.

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- (b) Failure to provide the information required by paragraph (k)(1) may invalidate the training or check and the Authority may require that it be repeated for observation purposes.

*Note: The ATS unit shall furnish the Authority with a copy of its Training Manual not less than 30 days prior to training for which a curriculum has not been approved in the ATS unit training programme, for approval by the Authority.*

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## 2.7 FLIGHT DISPATCHER LICENCE, INSTRUCTORS AND DESIGNATED EXAMINERS

This section prescribes the requirements for the issue, renewal and re-issue of a Flight Dispatchers licence, instructors for Flight Dispatcher licences and designation of Flight Dispatcher examiner.

### 2.7.1 GENERAL

- (1) 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.
- (2) An applicant shall for renewal or re-issue of a licence meet the requirements as are specified for that licence.
- (3) An applicant shall demonstrate the ability to read, write, speak, and understand English language.

### 2.7.2 FLIGHT DISPATCHER LICENCE

#### 2.7.2.1 GENERAL REQUIREMENTS

- (1) **Age.** The applicant for a Flight Dispatcher licence shall not be less than 21 years of age.
- (2) **Knowledge.** The applicant for a Flight Dispatcher licence shall receive and log training from an authorised instructor on following subjects appropriate to the privileges of the Flight Dispatcher:
  - (a) **Air Law:**
    - (i) Rules and Directives relevant to the holder of a Flight Dispatcher licence; and
    - (ii) appropriate air traffic services practices and procedures.
  - (b) **Aircraft general knowledge:**
    - (i) Principles of operation of aeroplane powerplants, systems and instruments;
    - (ii) Operating limitations of aeroplanes and powerplants; and
    - (iii) Minimum equipment list.
  - (c) **Flight performance calculation, planning procedures and loading:**
    - (i) Effects of loading and mass distribution on aircraft performance and flight characteristics; mass and balance calculations;
    - (ii) Operational flight planning; fuel consumption and endurance calculations; alternate airport selection procedures; en-route cruise control; extended range operation;
    - (iii) Preparation and filing of air traffic services flight plans; and
    - (iv) Basic principles of computer-assisted planning systems.
  - (d) **Human performance:**



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- (i) Human performance relevant to dispatch duties, including principles of threat and error management.

*Note: Guidance material to design training programmes on human performance, including threat and error management, can be found in ICAO Doc 9683, Human Factors Training Manual.*

(e) **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.

(f) **Navigation:**

- (i) Principles of air navigation with particular reference to instrument flight.

(g) **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;

(h) **Principles of flight**

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

(i) **Radio communication:**

- (i) Procedures for communicating with aircraft and relevant ground stations.

(3) The applicant for the Flight Dispatcher licence shall:

- (a) 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.

- (b) Pass the required knowledge test.

(4) **Experience.**

- (a) The applicant for a Flight Dispatcher licence shall have gained the following experience:

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- (i) A total of 2 years' service in any one or in any combination of the capacities specified in (A) to (C) inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least one year:
    - (A) A flight crewmember in air transportation; or
    - (B) A meteorologist in an organisation dispatching aircraft in air transportation; or
    - (C) An air traffic controller; or a technical supervisor of flight operations officers or air transportation flight operations systems.
  - (ii) At least one year as an assistant in the dispatching of air transport.
  - (iii) Have satisfactorily completed a course of approved training.
  - (b) The applicant shall have served under the supervision of a flight operations officer for at least 90 working days within the 6 months immediately preceding the application.
  - (5) **Skill.** The applicant shall have demonstrated the ability, by passing a skill test on the subjects listed in IS:2.8.3.2 to:
    - (a) 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.
    - (b) Determine the optimum flight path for a given segment, and create accurate manual and/or computer generated flight plans.
    - (c) 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.
    - (d) Recognise and manage threats and errors.

*Note. Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services – Training, ICAO Doc 9869, PANS-TRG, Chapter 3, Attachment C, in Part II, Chapter 2, of the Human Factors Training Manual, ICAO Doc 9683.*
  - (6) **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 Directives.
  - (7) **Validity.** The validity period of the licence is five (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.
  - (8) **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.
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- (9) **Reissue.** If the Flight Dispatcher Licence has expired, the applicant shall have received refresher training acceptable to the Authority, and passed a skill test in the areas of operation contained in IS: 2.8.3.2.

#### **2.7.2.2 SKILL TEST FOR THE FLIGHT DISPATCHER LICENCE**

Implementing Standard (IS) 2.8.3.2 contains the list of operations included in the Flight Dispatcher Licence skill test.

### **2.7.3 INSTRUCTORS FOR FLIGHT DISPATCHER LICENCE**

#### **2.7.3.1 REQUIREMENTS FOR FLIGHT DISPATCHER INSTRUCTOR LICENCE**

- (1) **Age.** An applicant for Flight Dispatcher Instructor licence and rating shall be at least 21 years of age.
- (2) **Knowledge.**
- (a) An applicant for a Flight Dispatcher Instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
  - (b) Any additional requirements as may be specified by the Authority.
- (3) **Experience.** The applicant for a Flight Dispatcher Instructor licence shall hold at least a current and valid Flight Dispatcher licence and have a minimum of three (3) years' experience as a Flight Dispatcher.
- (4) **Privileges.** The privileges of a Flight Dispatcher Instructor licence are to give instruction to Flight Dispatcher licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (5) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the Flight Dispatcher Instructor licence is two (2) years.
- (6) **Renewal.** A Flight Dispatcher Instructor licence that has not expired may be renewed for 24 calendar months if the holder presents to the Authority evidence that within the past 12 months preceding the expiry date has—
- (a) Conducted at least six exercises in an approved course for a Flight Dispatcher licence; or
  - (b) Received refresher training acceptable to the Authority.
- (7) **Reissue.** If the Flight Dispatcher Instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.

### **2.7.4 DESIGNATED EXAMINERS FOR FLIGHT DISPATCHERS**

#### **2.7.4.1 GENERAL REQUIREMENTS**

- (1) **Age.** An applicant for a Flight Dispatcher Examiner shall be at least 23 years of age.
- (2) **General eligibility.**
- (a) Show evidence of a high level of aeronautical knowledge in the subject areas for the Flight Dispatcher Licence (FDL) certification.

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- (b) Have held a FD licence for at least five (5) years prior to the designation.
  - (c) Have been actively exercising the privileges of the FD licence in commercial air transport in the previous three (3) years.
  - (d) Have a good record as a FD and a person engaged in the industry and community with a reputation for honesty and dependability.
  - (e) Have satisfactorily completed the FD examiner orientation programme with the Authority.
  - (f) 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 Dispatcher of an active commercial airline.

#### **2.7.4.2 KNOWLEDGE**

The applicant shall have passed a pre-designation test on the following:

- (a) Air Law and Directives for FD personnel.
- (b) Aircraft knowledge on the aircraft used for testing.
- (c) Flight performance calculation and planning procedures.
- (d) Human performance.
- (e) Meteorology.
- (f) Navigation.
- (g) Radio communication.
- (h) 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.

#### **2.7.4.3 SKILL**

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

#### **2.7.4.4 CURRENCY**

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

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#### **2.7.4.5 PRIVILEGES**

- (1) The FD examiner may conduct Skill test for the Flight Dispatcher licence in accordance with approved STS standard.
- (2) The FD examiner may conduct or monitor any portion of a computerised knowledge test.

#### **2.7.4.6 VALIDITY**

The FD examiner licence shall be valid for two (2) years.

#### **2.7.4.7 RENEWAL**

The FD examiner designation may be renewed by the Authority if:

- (a) The need for the designation remains valid;
- (b) The performance of the examiner has been satisfactory.

### **2.8 AERONAUTICAL STATION OPERATOR AND METEOROLOGICAL PERSONNEL**

#### **2.8.1 APPLICABILITY**

This section prescribes the requirements for the issue, renewal or re-issue of an Aeronautical Station Operator licence.

#### **2.8.2 GENERAL**

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

#### **2.8.3 AERONAUTICAL STATION OPERATOR LICENCE**

- (1) **Age.** The applicant for an Aeronautical Station Operator licence shall not be less than 18 years of age.
- (2) **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:
  - (a) General Knowledge. Air traffic services provided within Ghana.
  - (b) Operational Procedures. Radiotelephony procedures; phraseology; telecommunication network.
  - (c) Rules and Directives. Rules and Directives applicable to the Aeronautical Station Operator.

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- (d) Telecommunication equipment. Principles, use and limitations of telecommunication equipment in an aeronautical station.
- (3) **Knowledge testing.** An applicant for an Aeronautical Station Operator licence shall—
- (a) 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.
- (b) Pass the required knowledge test.
- (4) **Experience.** The applicant for an Aeronautical Station Operator licence shall have:
- (a) 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
- (b) Satisfactorily served under a qualified aeronautical station operator for not less than 6 months during the 12-month period immediately preceding application.
- (5) **Skill.** The applicant for an Aeronautical Station Operator licence shall demonstrate, or have demonstrated, competency in:
- (a) Operating the telecommunication equipment in use; and
- (b) Transmitting and receiving radiotelephony messages with efficiency and accuracy.
- (6) **Privileges.** Subject to compliance with the requirements specified in this Part, the privileges of the holder of an aeronautical station operator licence shall be to act as an operator in an aeronautical station. Before exercising the privileges of the licence, the holder shall be familiar with all pertinent and current information regarding the types of equipment and operating procedures used at that aeronautical station.
- (7) **Validity:** The validity period of the licence is five (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.
- (8) **Renewal.** An Aeronautical Station Operator licence that has not expired may be renewed for an additional five years if the holder presents to the Authority evidence that 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.
- (9) **Reissue.** If the Aeronautical Station Operator licence has expired, the applicant shall have received refresher training acceptable to the Authority.

*Note: This licence is not intended for personnel providing Aerodrome Flight Information Service (AFIS). Guidance on the qualifications to be met by these personnel can be found in ICAO Circular 211, Aerodrome Flight Information Service*

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#### 2.8.4 QUALIFICATIONS AND TRAINING OF AFIS PERSONNEL

- (1) AFIS should be provided by suitably qualified and trained personnel, duly authorized by the appropriate ATS authority.
- (2) Age, knowledge, experience and skill required from AFIS personnel should be determined by the appropriate ATS authority. However, the following may be used as a general guide:
  - (a) Not less than 18 years of age;
  - (b) **Knowledge.** Demonstrated knowledge of:
    - i. the language or languages nationally designated for use in air traffic services and ability to speak such language or languages without accent or impediment which would adversely affect radio communication;
    - ii. ICAO Circular 2 11-AM / 128 7
    - iii. rules of the air and air traffic procedures pertinent to aerodrome operations;
    - iv. procedures and practices pertaining to flight information service and alerting service;
    - v. terms used in the aeronautical mobile service, procedure words and phrases, the spelling alphabet;
    - vi. communication codes and abbreviations used;
    - vii. radiotelephony phraseologies and operating procedures;
    - viii. the general air traffic services and airspace organization within the State;
    - ix. local aerodrome rules;
    - x. characteristics of local traffic;
    - xi. local terrain and prominent landmarks;
    - xii. local air navigation facilities;
    - xiii. procedures for co-ordination between the AFIS unit and the associated PIC or ACC;
    - xiv. pertinent data regarding meteorological reports and effect of significant local weather characteristics; and
    - xv. local procedures for alerting of emergency services.
  - (c) **Experience,** Satisfactory: completion of an approved training course and service under a qualified APE officer for not less than two months.
  - (d) **Skill.** Demonstrated competency in:
    - (i) the manipulation and operation of typical transmit/receiver equipment and controls, including ancillary facilities, and radio direction-finding apparatus in use;
    - (ii) the visual inspection and daily operational check of the radio equipment in use;
    - (iii) the transmission of telephony messages, including correct microphone technique, enunciation and speech quality; and

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- (iv) the reception of telephony messages and the ability to relay messages correctly, 8 ICAO Circular 211-AN1128 VZ SU AL GROUND SIGNAL QUALIFICATIONS AND TRAINING OF AFIS PERSONNEL

### **2.8.5 AERONAUTICAL METEOROLOGICAL PERSONNEL**

The requirements for training and qualifications for all aeronautical meteorological personnel are the responsibility of the World Meteorological Organisation (WMO) in accordance with the Working Arrangements between the International Civil Aviation Organisation and the WMO (Doc 7475). The requirements can be found in WMO Document 258 – Guidelines for the education and training of personnel in meteorology and operational hydrology – Vol. 1: Meteorology.

### **2.9 PARACHUTE RIGGER LICENCES, INSTRUCTORS AND DESIGNATED PARACHUTE RIGGER EXAMINERS**

*Note: ICAO Annex 1 does not address licences for parachute riggers. The Directives in this subpart are based on 14 CFR Part 65 and are presented here for information that may be interested in developing licences for parachute riggers.*

#### **2.9.1 APPLICABILITY**

This Subpart prescribes the requirements for issuance of a parachute rigger licences and ratings, and the conditions under which those licences and ratings are necessary.

#### **2.9.2 ELIGIBILITY REQUIREMENTS: GENERAL**

To be eligible for a parachute rigger licence, a person shall—

- (a) Be at least 18 years of age.
- (b) Be able to read, speak, write, and understand English language.
- (c) Comply with the sections of this subpart that apply to the licence and type rating sought.

#### **2.9.3 LICENCE REQUIRED**

- (1) No person may pack, maintain, or alter any personnel-carrying parachute intended for emergency use in connection with civil aircraft registered in Ghana unless he holds an appropriate current licence and type rating issued under this Subpart and complies with this Subpart.
- (2) Except as allowed by paragraph (3) 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 registered in Ghana unless he has an appropriate valid licence issued under this Subpart.
- (3) A person who does not hold a licence may pack the main parachute of a dual parachute pack that is to be used by him for intentional jumping.
- (4) Each person who holds a parachute rigger licence shall present it for inspection upon the request of the Authority or an authorised representative of the Authority.



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- (5) The following parachute rigger licences are issued under this part:
- (a) Senior parachute rigger.
  - (b) Master parachute rigger.
- (6) Subparts 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*.

**2.9.3.1 SENIOR PARACHUTE RIGGER LICENCE—EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS**

An applicant for a senior parachute rigger licence shall—

- (a) Present evidence satisfactory to the Authority that he has packed at least 20 parachutes of each type for which he 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.
- (b) 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 Directives of this Subpart.
- (c) 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 2.9.4.

**2.9.3.2 MASTER PARACHUTE RIGGER LICENCE—EXPERIENCE, KNOWLEDGE, AND SKILL REQUIREMENTS**

- (1) An applicant for a master parachute rigger licence shall meet the following requirements:
  - (a) 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 (2) types appropriate to type ratings held, in accordance with the manufacturer's instructions—
    - (i) While a licensed and appropriately rated senior parachute rigger; or
    - (ii) While under the supervision of a licensed and appropriately rated parachute rigger or a person holding appropriate military ratings.
    - (iii) An applicant may combine experience specified in paragraphs (1) (a) and (b) of this paragraph to meet the requirements of this subsection.
  - (b) If the applicant is not the holder of a senior parachute rigger licence, pass a knowledge test, with respect to parachutes appropriate to the type rating sought, on—
    - (i) Their construction, packing, and maintenance;

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- (ii) The manufacturer's instructions; and
  - (iii) The Directives of this Subpart.
- (c) Pass skill test showing the ability to pack and maintain two (2) types of parachutes appropriate to the type ratings sought. Requirements for the skill test are contained in IS: 2.9.5.

### **2.9.3.3 TYPE RATINGS**

- (1) The following type ratings are issued under this subpart:
  - (a) Seat.
  - (b) Back.
  - (c) Chest.
  - (d) Lap.
- (2) The skill test requirements for a type rating are contained in IS:2.10.1.6.
- (3) 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.

### **2.9.3.4 ADDITIONAL TYPE RATINGS: REQUIREMENTS**

A licensed parachute rigger who applies for an additional type rating shall—

- (a) 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
- (b) 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.

### **2.9.3.5 PRIVILEGES**

- (1) A licensed senior parachute rigger may—
  - (a) Pack or maintain (except for major repair) any type of parachute for which he is rated; and
  - (b) Supervise other persons in packing any type of parachute for which he is rated.
- (2) A licensed master parachute rigger may—
  - (a) Pack, maintain, or alter any type of parachute for which he is rated; and
  - (b) Supervise other persons in packing, maintaining, or altering any type of parachute for which he is rated.

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- (3) A licensed parachute rigger need not comply with 2.10.1.9 through 2.10.1.12 (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.

#### **2.9.3.6 FACILITIES AND EQUIPMENT**

No licensed parachute rigger shall exercise the privileges of his licence unless he has at least the following facilities and equipment available—

- (a) A smooth top table of at least three (3) feet wide by 40 feet long;
- (b) Suitable housing that is adequately heated, lighted, and ventilated for drying and airing parachutes;
- (c) Enough packing tools and other equipment to pack and maintain the types of parachutes serviced; and
- (d) Adequate housing facilities to perform applicable duties and to protect tools and equipment.

#### **2.9.3.7 PERFORMANCE STANDARDS AND RECENCY REQUIREMENTS**

No licensed parachute rigger may—

- (a) Pack, maintain, or alter any parachute unless he is rated for that type;
- (b) Pack a parachute that is not safe for emergency use;
- (c) Pack a parachute that has not been thoroughly dried and aired;
- (d) Alter a parachute in a manner that is not specifically authorised by the Authority or the manufacturer;
- (e) Pack, maintain, or alter a parachute in any manner that deviates from procedures approved by the Authority or the manufacturer of the parachute; or
- (f) Exercise the privileges of the licence and type rating unless he understands the current manufacturer's instructions for the operation involved and has—
  - (i) Performed duties under the licence for at least 90 days within the preceding 12 months; or
  - (ii) Shown to the Authority the ability to perform those duties.

#### **2.9.3.8 RECORDS**

- (1) Each licensed parachute rigger shall keep a record of the packing, maintenance, and alteration of parachutes performed or supervision of those activities.
- (2) Each licensed parachute rigger who packs a parachute shall make an entry 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 name and licence number.

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- (3) Each parachute rigger shall sign the record required by paragraph (b) of this subpart with the name and the number of his licence.
  - (4) The record required by paragraph (1) of this subsection shall contain, with respect to each parachute worked on, a statement of—
    - (a) Its type and make;
    - (b) Its serial number;
    - (c) The name and address of its owner or user;
    - (d) The kind and extent of the work performed;
    - (e) The date when and place where the work was performed; and
    - (f) The results of any drop tests made with it.
  - (5) Each person who makes a record under paragraph (1) of this subpart shall keep it for at least two (2) years after the date it is made.

#### **2.9.3.9 SEAL**

- (1) No person exercising the privileges of a parachute rigger, shall pack a parachute without applying a seal in accordance with the manufacturer's recommendation for that type of Parachute.
- (2) Each licensed parachute rigger shall have a seal with an identifying mark prescribed by the Authority, and a seal press.

#### **2.9.3.10 DURATION OF PARACHUTE RIGGER LICENCE**

- (1) **Validity:** The validity period of the licence is five (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.
- (2) **Renewal.** A 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 has within the past 6 months preceding the expiry date —
  - (a) Be actively engaged in the duties of a Parachute Rigger, or
  - (b) Received refresher training acceptable to the Authority.
- (3) **Reissue.** If the Parachute Rigger licence has expired, the applicant shall have received refresher training acceptable to the Authority and pass a skill test on the areas of operations in either IS:2.10.1.4, IS:2.10.1.5, or IS:2.10.1.6, as applicable to the licence and ratings to be renewed.

#### **2.9.3.11 DISPLAY OF LICENCE**

Each person who holds a parachute rigger licence shall keep it within the immediate area where he 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.

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#### 2.9.4 PARACHUTE RIGGER INSTRUCTOR LICENCE REQUIREMENTS

- (1) **Age.** An applicant for Parachute Rigger Instructor licence and rating shall be at least 21 years of age.
- (2) **Knowledge.**
  - (a) An applicant for a parachute rigger instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
  - (b) Any additional requirements as may be specified by the Authority.
- (3) **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 (3) years' experience as a Parachute Rigger.
- (4) **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.
- (5) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of the Parachute Rigger Instructor licence is 2 years.
- (6) **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 has within the past 12 months preceding the expiry date —
  - (a) Conducted at least six (6) exercises in an approved course for a Parachute Rigger licence; or
  - (b) Received refresher training acceptable to the Authority.
- (7) **Reissue.** If the Parachute Rigger Instructor licence has expired, the applicant shall have received refresher training acceptable to the Authority.

#### 2.9.5 DESIGNATED PARACHUTE RIGGER EXAMINER REQUIREMENTS

##### 2.9.5.1 GENERAL REQUIREMENTS

- (1) **Age.** An applicant for a Designated Parachute Rigger Examiner (DPRE) licence shall be at least 23 years of age.
- (2) **General eligibility.**
  - (a) Show evidence of a high level of aeronautical knowledge in the subject areas for the DPRE certification.
  - (b) Have held a DPR licence for at least five (5) years prior to the designation.
  - (c) Have been actively exercising the privileges of the DPR for the previous three (3) years.
  - (d) Have a good record as a DPR and a person engaged in the industry and community with a reputation for honesty and dependability.
  - (e) Have satisfactorily completed the DPRE orientation programme with the Authority.
  - (f) The applicant must have fixed base of operations adequately equipped to all practical Subject Areas to return to service condition.

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- (g) The applicant shall have at the fixed base of operation adequate equipment to test the Tasks in each Area of Operation listed in the STS.
  - (h) The applicant shall have tools, equipment, current publications, and materials required to complete a project assignment as recommended by the parachute manufacturer or industry standards.

#### **2.9.5.2 KNOWLEDGE**

The applicant shall have passed a pre-designation test on the following:

- (a) Air Law and Directives for DPR personnel.
- (b) Packing and maintaining a wide variety of parachutes.
- (c) Alterations of parachutes in accordance with manufacturers and industry standards.
- (d) Proper use of Seals for identification purposes.
- (e) Proper record keeping requirements.

#### **2.9.5.3 SKILL**

- (1) 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.
- (2) The applicant shall complete all required paper work for the certification as required by the Authority.

#### **2.9.5.4 CURRENCY**

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

#### **2.9.5.5 PRIVILEGES**

- (1) The DPRE may conduct Skill test for the Senior Parachute Rigger and Master Parachute Rigger licence in accordance with approved STS.
- (2) The DPRE may conduct or monitor any portion of a computerised knowledge test.

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#### **2.9.5.6 VALIDITY**

The DPRE examiner designation shall be valid for two (2) years.

#### **2.9.5.7 RENEWAL**

The DPRE examiner designation may be renewed by the Authority if:

- (a) The need for the designation remains valid.
- (b) The performance of the examiner has been satisfactory.
- (c) The DPRE examiner has attended the DPRE examiner seminar conducted by the Authority in the previous 12-month period.

### **2.10 CABIN CREW MEMBERS**

#### **2.10.1 APPLICABILITY**

This Subpart prescribes the requirements for the issuance of a cabin crew member certificate, the conditions under which those certificates and ratings are necessary, and the limitations of those certificates and ratings.

#### **2.10.2 CABIN CREW MEMBER ELIGIBILITY REQUIREMENTS**

To be eligible for a cabin crew member Certificate, a person shall—

- (a) Be at least 18 years of age.
- (b) Have a minimum demonstrated language proficiency in English; and
- (c) Have a valid Class 2 medical certificate.

#### **2.10.3 CABIN CREW MEMBER KNOWLEDGE REQUIREMENTS**

The applicant for a cabin crew member certificate must complete the training requirements of Part 3 and 8 of these Flight Standards Directives with an AOC or an ATO holder.

#### **2.10.4 CABIN CREW MEMBER EXPERIENCE REQUIREMENTS**

The applicant for a cabin crew member certificate must complete the experience requirements of Part 8 of these Flight Standards Directives with an AOC holder.

#### **2.10.5 CABIN CREW MEMBER SKILL REQUIREMENTS**

The applicant for a cabin crew member certificate shall complete the drills and competency checks required by Part 8 of these -Directives with an AOC holder.

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### **2.10.6 CABIN CREW MEMBER INSTRUCTOR AUTHORIZATION**

The applicant for a Cabin Crew Member Instructor's Authorization shall satisfy the following requirements:

- (a) Holds the Cabin Crew Member certificate and rating required to serve as lead Cabin Crew Member.
- (b) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as lead Cabin Crew Member.
- (c) Has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a Cabin Crew Member.
- (d) Has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed in-flight competency check; and
- (e) Holds at least a Cabin Crew Member medical certificate.

### **2.10.7 CHECK CABIN CREW MEMBER AUTHORISATION**

No AOC holder may use a person, nor may any person serve as a check cabin crew member in an established training programme unless, with respect to the aircraft type unless that person:

- (a) Holds a valid competency certificate;
- (b) Has acted at least five (5) years as a lead cabin crew member;
- (c) Has satisfactorily completed the appropriate training phases for the aircraft type including recurrent training required to serve as a check cabin crew member;
- (d) Has satisfactorily completed the appropriate competency and on board experience check observed by the Authority;
- (e) Holds a valid cabin crew member class 2 medical certificate: and
- (f) Has been approved by the Authority.

### **2.10.8 CABIN CREW MEMBER EXAMINER AUTHORIZATION**

An applicant for Cabin Crew Member Examiner Authorization shall satisfy the following requirements:

- (a) Hold Cabin Crew Member certificate and has completed for the AOC holder all applicable training, qualification and currency requirements of this Part applicable to the Cabin Crew Member position being checked.
- (b) Holds the Cabin Crew Member certificate or licence and has completed all applicable training, qualification and line observation requirement of this Part applicable to the Cabin Crew position being checked;
- (c) Completed emergency evacuation training with AOC holder.



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## **2.11 MEDICAL PROVISIONS FOR LICENSING**

### **2.11.1 GENERAL**

- (1) As part of its State Safety Programme, basic safety management principles adopted by the Authority for the medical assessment process of licence holders, shall include as a minimum:
  - (a) routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
  - (b) continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.
- (2) The Authority shall implement appropriate aviation – related health promotion activities for license holders subject to a Medical Assessment to reduce future medical risks to flight safety.

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

*Note 2.-Guidance On The Relationship Between The Authority And The Implementation Of Medical Assessment For Licence Holders Is Contained In The Manual Of Procedures For Establishment And Management Of A State's Personnel Licensing System ( Doc 9379).*

### **2.11.2 APPLICABILITY**

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

### **2.11.3 MEDICAL FITNESS**

- (1) The applicants for a flight crew licence and air traffic controller licence shall hold a medical certificate issued in accordance with this Part.
- (2) As of 3 November 2022, the flight crew members, remote flight crew members or air traffic controllers shall not exercise the privileges of their licence unless they hold a current medical certificate appropriate to the licence.

### **2.11.4 DESIGNATED AVIATION MEDICAL EXAMINERS (DAME)**

- (1) Subject to compliance with the requirements specified in this Part, the Authority may designate qualified and licensed physicians in the practice of medicine, to be authorised as an DAME and conduct medical examinations of fitness of applicants for the issue, renewal or re-issue of the licences or ratings specified in this Part. DAMEs may be designated inside or outside of Ghana.
- (2) DAMEs shall have had, or shall receive initial and recurrent training in aviation medicine. Initial training shall include:
  - (a) Basic training in aviation medicine for Class 2 and 3 medical examinations on the subjects listed in IS 2.13.1.3. (a); and
  - (b) Advanced training in aviation medicine for Class 1 medical examinations on the subjects listed in IS 2.13.1.3(b).

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- (3) DAMEs shall demonstrate adequate competency in Aviation Medicine prior to designation and shall receive refresher training every three (3) years.
  - (4) DAMEs should acquire knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties

*Note: Examples of practical knowledge and experience are flight experience, simulator experience, on-site observation or any other hands-on experience deemed by the Authority to meet this requirement.*

- (5) The competence of a medical examiner should be evaluated periodically by the medical assessor. DAME medical facility shall be inspected prior to the issue of their designation.
- (6) The DAME shall be required to submit sufficient information to the Authority to enable the Authority to undertake Medical Assessments audits.

*Note. The purpose of such auditing is to ensure that medical examiners meet applicable standards for good medical practice and aeromedical risk assessment. Guidance on aeromedical risk assessment is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (7) The authorisation of a DAME is valid for 2 years. The DAME shall have completed at least 10 examinations for a medical certificate per year. Renewal of the DAME designation will be at the discretion of the Authority. Having completed the medical examination of an applicant in accordance with this Part, the DAME shall coordinate the results of the examination and submit a signed report to the Authority, in accordance with its requirements, detailing the results of the examination and evaluating the findings with regards to medical fitness
- (8) If the medical examination is carried out by a constituted group of DAMEs, the head of the group will be appointed by the Authority, who will be responsible for coordinating the results of the examination and signing the report.

*Note: If the medical report is submitted to the Authority in electronic format, adequate identification of the examiner shall be established.*

- (9) The Authority will use the services of Medical Assessors to evaluate reports submitted to the Authority by medical examiners.
- (10) The Authority retains the right to reconsider any action of a DAME.
- (11) If the medical report is submitted to the Authority in electronic format, adequate identification of the examiner shall be established.
- (12) The DAME shall respect medical confidentiality at all times.
- (13) The DAME shall securely hold all medical reports and records with accessibility restricted to authorised personnel.

### **2.11.5 AVIATION MEDICAL EXAMINATIONS**

- (1) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the medical examiner a declaration stating whether they have previously undergone such an examination and, if so, the date, place and results of last examination.
- (2) The applicant shall indicate to the medical examiner whether a medical certificate has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension.

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- (3) Each applicant for a medical certificate shall provide the medical examiner with a personally certified statement of medical facts concerning personal, familial and hereditary history.
  - (4) Each applicant for a medical certificate shall produce proof of identification as specified in 2.2.5.5(c).
  - (5) Any false declaration to a medical examiner made by an applicant for a licence or rating shall be reported to the Authority for such action as may be considered appropriate.
  - (6) The applicant shall complete the appropriate application form as prescribed by the Authority.
  - (7) The medical assessor shall ensure that medical examiners submit sufficient medical information to the Authority.
  - (8) Medical confidentiality shall be respected at all times by the medical examiners, assessors and the Authority and all medical reports and records shall be securely held with accessibility restricted to authorised personnel only.
  - (9) When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials of the personnel licensing section.

#### **2.11.6 SPECIAL CIRCUMSTANCES**

- (1) If the medical requirements prescribed in this Part of the Flight Standards Directives 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:
  - (a) 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;
  - (b) Relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and
  - (c) 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.
- (2) The DAME shall report to the Authority any individual case where, in the DAME's judgment, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardise flight safety.

#### **2.11.7 DECREASE IN MEDICAL FITNESS**

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

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- (3) The Authority would, 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.
  - (4) The holders of licences granted under the provisions of this Part who suffer a personal injury or illness resulting in his incapacity to undertake the functions to which the licence relates for a continuous period of 20 days or more, shall be deemed to have his licence suspended upon the elapse of such period of injury or illness. The suspension of a licence shall only be lifted by the GCAA, after assessment of the licence holder's fitness to fly.
  - (5) 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 a medical examiner or the Authority.

*Note.— Guidance on physical and mental conditions and treatments that are relevant to flight safety about which information may need to be forwarded to the Authority is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (6) 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.

#### **2.11.8 USE OF PSYCHOACTIVE SUBSTANCES**

- (1) 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.
- (2) Holders of licences provided for in this Part shall not engage in any problematic use of substances.

*Note.- Guidance on suitable methods of identification (which may include biochemical testing on such occasions as pre-employment, upon reasonable suspicion, after accidents or incidents, at intervals, and at random) and on other prevention topics is contained in ICAO Doc 9654, Manual on Prevention of Problematic Use of Substances in the Aviation Workplace.*

- (3) The Authority shall 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.

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

#### **2.11.9 MEDICAL CERTIFICATE**

- (1) No personnel licence holder requiring medical certification, shall exercise the privileges of a personnel licence without having on his person at all time, his medical certificate.
- (2) The medical certificate-

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- (a) shall be in a form and manner prescribed by the Authority. The items required on the licence are indicated in IS: 2.13.1.8, and
  - (b) carried in the possession of the personnel licence holder at all times while exercising the privileges of a personnel licence.

**(3) Issue of medical certificates.**

- (a) 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 DAME as specified in 2.13.1.3 (b)(2)
    - (ii) The issue of Class 2 and 3 medical certificates may be delegated to any authorised DAME as specified in 2.13.1.3(b)(1)
  - (b) Each person to be issued a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this Subpart.
- (4) Any person who does not meet the medical requirements of this Subpart may apply for the discretionary issuance of a certificate under 2.13.1.3

**(5) Validity:**

- (a) The validity period of the medical certificate shall be:
  - (i) Class 1 – 12 months;
  - (ii) Class 2 – 24 months
  - (iii) Class 3 – 24 months.
- (b) Based on the age of the applicant on the date of the medical assessment, the period of validity shall be reduced to—
  - (i) 6 months, following their 60th birthday, for airline transport and commercial pilots exercising privileges in multi-crew commercial air transport carrying passengers;
  - (ii) 6 months, following their 40th birthday, for airline transport and commercial pilots exercising privileges in single-crew commercial air transport carrying passengers;
  - (iii) 6 months, following their 60th birthday, for airline transport and commercial pilots continuing to exercise privileges in general aviation;
  - (iv) 12 months, following their 50th birthday, for private pilots and Air Traffic Controllers.
  - (v) As of 3 November 2022, when the holders of private pilot licences — aeroplane, airship, helicopter and powered-lift, remote pilot licences — aeroplane, airship, glider, rotorcraft, powered-lift or free balloon, free balloon pilot licences, glider pilot licences and air traffic controller licences have passed their 50th birthday, the period of validity specified in 1.2.5.2 should be further reduced to 12 months
  - (vi)

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- (c) 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.
  - (d) The period of validity of a Medical Certificate may be extended at the discretion of the Authority, up to 45 days.
  - (e) The period of validity of a medical certificate may be reduced when clinically indicated.
- (6) **Renewal or re-issue of a medical certificate.**
- (a) 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.
  - (b) The renewal of the Class 1, 2 and 3 medical certificates may be delegated to the DAME.
  - (c) Re-issue of the Class 1 medical certificate will either be done by the Authority or specifically delegated to a DAME.
  - (d) Re-issue of the Class 2 and 3 medical certificates may be delegated to a DAME.
- (7) **Limitation or denial.**
- (a) The Authority may, for medical reasons justified and notified to the applicant, limit or deny a medical certificate.
- (8) **Suspension or revocation of a medical certificate.**
- (a) The Authority may in accordance with paragraph 2.2.9 suspend or revoke a medical certificate issued, if it is established that an applicant or a certificate holder has not met, or no longer meets the requirements of Part 2.

**2.11.10 CIRCUMSTANCES UNDER WHICH A MEDICAL EXAMINATION MAY BE DEFERRED**

The prescribed re-examination of a licence holder operating in an area distant from designated 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-

- (a) A single period of 6 months in the case of a flight crew member of an aircraft engaged in non-commercial operations;
- (b) 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 a designated medical examiner of the area concerned, or, in cases where such a designated 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 where the licence was issued; and

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- (c) In the case of a private pilot, a single period not exceeding 12 months, where the medical examination is carried out by an examiner designated by the Authority in which the applicant is temporarily located. A report of the medical examination shall be sent to the Authority.

**2.11.11 MEDICAL ASSESSOR**

- (1) The Authority's medical assessor shall periodically evaluate the competence of each DAME.
- (2) The Authority shall use the services of Medical Assessors to evaluate reports submitted to the Authority by medical examiners.

**2.11.12 MEDICAL REQUIREMENTS**

**2.11.12.1 GENERAL**

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

- (a) Physical and mental;
- (b) Visual and colour perception; and
- (c) Hearing.

**2.11.12.2 PHYSICAL AND MENTAL REQUIREMENTS**

- (1) An applicant for any class of Medical Assessment shall be required to be free from:
- (a) Any abnormality, congenital or acquired; or
- (b) Any active, latent, acute or chronic disability; or
- (c) Any wound, injury or sequelae from operation; or
- (d) Any effect or side-effect of any prescribed or non-prescribed therapeutic 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.
- (2) 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.

*Note 1: Guidance on assessment of applicants treated with antidepressant medication is contained in the Manual of Civil Aviation Medicine (Doc8984).*

*Note 2: Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organisation as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition – Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.*

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### **2.11.12.3 VISUAL ACUITY TEST REQUIREMENTS**

- (1) Visual acuity tests shall be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m<sup>2</sup>).
- (2) Visual acuity shall be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

### **2.11.12.4 COLOUR PERCEPTION REQUIREMENTS**

- (1) 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.
- (2) The applicant shall be tested for the ability to correctly identify a series of pseudo isochromatic 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).
- (3) 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.
- (4) Sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarising and of neutral grey tint.

### **2.11.12.5 HEARING TEST REQUIREMENTS**

- (1) Applicants shall be required to demonstrate hearing performance sufficient for the safe exercise of their licence and rating privileges.
- (2) The hearing test may be conducted using a pure tone audiometer or alternate method that will provide equivalent results. This test shall be performed at the first medical examination and then at specified intervals according to the class of medical examination and age of the applicant.
- (3) If a pure tone audiometer is used, the reference zero for calibration is that of the International Organisation for Standardisation (ISO) Recommendation R389, 1964.
- (4) 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.
  - (a) 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.
  - (b) the sound level of an average conversational voice at 1 m from the point of output is 60dB(A) and that of a whispered voice is 45dB(A). At 2 m from the speaker, the sound is 6 dB(A) lower.
- (5) The holder of a PPL with an instrument rating shall meet the hearing requirements for the Class 1 medical certificate.



**(1) Certificate issue and renewal**

- (a) The level of medical fitness to be met for the renewal of a medical certificate shall be the same as that for the initial assessment except where otherwise specifically stated.
- (b) An applicant for a CPL or ATPL shall undergo an initial medical examination for the issue of a Class 1 Medical Certificate.
- (c) Except where otherwise stated in this subpart, holders of CPL or ATPL shall have their Class 1 medical certificate renewed at intervals not exceeding those specified below.
- (d) In alternate years, for Class 1 applicants under 40 years of age, the Authority may, at its discretion, allow medical examiners to omit certain routine examination items related to the assessment of physical fitness, while increasing the emphasis on health education and prevention of ill health.
- (e) A Class 1 medical certificate will be issued when the applicant complies with the requirements of this Part.

**(2) Physical and mental requirements**

- (a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
- (b) The applicant shall have no established medical history or clinical diagnosis of 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 use of psychoactive substances; this induces dependence syndrome induced by alcohol or other psychoactive substances;
  - (iii) Schizophrenia or a schizotypal or delusional disorder;
  - (iv) A mood (affective) disorder;
  - (v) A neurotic, stress-related or somatoform disorder;
  - (vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
  - (vii) Mental retardation;
  - (viii) A disorder of psychological development;
  - (ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or
  - (x) A mental disorder not otherwise specified.
- (c) The applicant shall have no established medical history or clinical diagnosis of any of the following:

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- (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.
- (d) 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.
- (e) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (f) 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.
- (g) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with the safe exercise of the applicant's licence or rating privileges.
- (h) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate.
- (i) Electrocardiography shall be included in re-examination of applicants over the age of 50 at least annually.

*Note: Guidance on resting and exercise electrocardiography is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (j) The systolic and diastolic blood pressures shall be within normal limits.
- (k) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.

*Note: Extensive guidance on the subject is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (l) There shall be no significant functional or structural abnormality of the circulatory system.
- (m) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.
- (n) Radiography should form a part of the initial chest examination.

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- (o) 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.
  - (p) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
  - (q) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

*Note: Guidance material on hazards of the medications is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (r) Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- (s) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

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

- (t) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.
- (u) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.
- (v) Applicants with sequela of disease of, or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression shall be assessed as unfit.
- (w) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical Authority designated for the purpose by the Authority and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.
- (x) 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.
- (y) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

*Note: Guidance material on assessment of Type 2 insulin treated diabetic applicants, under the provisions of 2.13.1.5, is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

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- (z) 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.
  - (aa) 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.
  - (bb) 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.
  - (cc) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

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

- (dd) 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.
- (ee) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- (ff) 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 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (gg) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy. The fit assessment period may be limited from the end of the 12th week until the end of the 26th week of gestation.
- (hh) 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.
- (ii) 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.

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(jj) 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.

(kk) 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.

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

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

(mm) There shall be 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.

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

**(3) Visual requirements**

(a) 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.

(b) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

- (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 correct visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.*

(c) Applicants may use contact lenses to meet the requirement of (b) provided that:

- (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.

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

- (d) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.

*Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.*

- (e) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical certificate and every five years thereafter.

*Note 1: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.*

*Note 2: Guidance on the assessment of monocular applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (f) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
- (g) The applicant shall have the ability to read, while wearing the correcting lenses, if any, 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.

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

*Note 2: Any applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.*

*Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.*

- (h) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
- (i) The applicant shall be required to have normal fields of vision.
- (j) The applicant shall be required to have normal binocular function.
- (k) 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.

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(4) **Hearing requirements.**

- (a) The applicant shall be tested by pure-tone audiometry.
  - (i) At the initial medical examination.
  - (ii) At least once every five (5) years up to the age of 40 years.
  - (iii) At least once every three (3) years after the age of 40 years.
- (b) The applicant shall not have a hearing loss in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz. However, an applicant with a hearing loss greater than the above may be declared fit provided that:
  - (i) The applicant has a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate the masking properties of flight deck noise upon speech and beacon signals; and
  - (ii) The applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner.
- (c) 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.

**2.11.14 CLASS 2 MEDICAL CERTIFICATE**

(1) **Certificate issue and renewal.**

- (a) An applicant for a PPL, Flight Engineer (FE), Flight Navigator (FN) or Cabin Crew Member certificate or licence shall undergo an initial medical examination for the issue of a Class 2 Medical Certificate.
- (b) Except where otherwise stated in this subpart, holders of a PPL, FE, FN- or Cabin Crew Certificate or licence shall have their Class 2 Medical Certificate renewed at intervals not exceeding those specified in this subpart.
- (c) A Class 2 Medical Certificate will be issued when the applicant complies with the requirements of this Part.

(2) **Physical and mental requirements.**

- (a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
- (b) The applicant shall have no established medical history or clinical diagnosis of 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 use of psychoactive substances; this induces dependence syndrome induced by alcohol or other psychoactive substances;

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- (iii) Schizophrenia or a schizotypal or delusional disorder;
  - (iv) A mood (affective) disorder;
  - (v) A neurotic, stress-related or somatoform disorder;
  - (vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
  - (vii) Mental retardation;
  - (viii) A disorder of psychological development;
  - (ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or
  - (x) A mental disorder not otherwise specified.
- (c) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the Medical Assessor, has 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.

*Note 1: Guidance on assessment of applicants treated with antidepressant medication is contained in eh Manual of Civil Aviation Medicine (Doc 8984)*

*Note 2: mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organisation as given in the International Statistical Classification of Diseases and Related health Problems 10th Edition – Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.*

- (d) 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.
- (e) 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.
- (f) 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.



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- (g) 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.
  - (h) 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.
  - (i) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate:
    - (i) After the age of 40; and
    - (ii) In re-examinations every two years after the age of 50.

*Note 1: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.*

*Note 2: Guidance on resting and exercise electrocardiography is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (j) The systolic and diastolic blood pressures shall be within normal limits.
- (k) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.

*Note: Extensive guidance on the subject is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (l) There shall be no significant functional or structural abnormality of the circulatory system.
- (m) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.
  - (i) Radiography should form a part of the initial chest examination.

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

- (n) 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.
- (o) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

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

*Note: Guidance material on hazards of the medications is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (q) Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- (r) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

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

- (s) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- (t) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.
- (u) Applicants with sequelae of disease of, or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression shall be assessed as unfit.
- (v) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical Authority designated for the purpose by the Authority and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.
- (w) 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.
- (x) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

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

- (y) 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.
- (z) 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.

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

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(aa) 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.

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

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

(cc) 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.

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

(ee) 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 1: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.*

*Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

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

(gg) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with item 32 above, the fit assessment should be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

(hh) 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.

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

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

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- (jj) 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.
  - (kk) 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.
  - (ll) A single dry perforation of the tympanic membrane need not render the applicant unfit.

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

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

### **(3) Visual requirements**

- (a) 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.
- (b) Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
  - (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 correct visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.*

- (c) Applicants may use contact lenses to meet the requirement of (b) provided that:
  - (i) the lenses are monofocal and non-tinted;
  - (ii) the lenses are well tolerated; and

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- (iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

- (d) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.

*Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.*

- (e) 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 (5) years thereafter.

*Note 1: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.*

*Note 2: Guidance on the assessment of monocular applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (f) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

- (g) The applicant shall have the ability to read, while wearing the correcting lenses, if any, 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.

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

*Note 2: Any applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.*

*Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.*

- (h) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
- (i) The applicant shall be required to have normal fields of vision.
- (j) The applicant shall be required to have normal binocular function.

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- (k) 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.
- (4) **Hearing requirements.**
- (a) The applicant shall be tested by pure-tone audiometry.
    - (i) At the initial medical examination.
    - (ii) At least once every two (2) years after the age of 50 years.
  - (b) 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.
  - (c) 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.
  - (d) The applicant who holds a PPL with an IR shall meet the hearing requirements for a Class 1 medical certificate.

**2.11.15**

**CLASS 3 MEDICAL CERTIFICATE**

- (1) **Certificate issue and renewal.**
  - (a) An applicant for an Air Traffic Controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Certificate.
  - (b) Except where otherwise stated in this subpart, holders of an Air Traffic Controller licence shall have their Class 3 Medical Certificate renewed at intervals not exceeding those specified in this subpart.
  - (c) A Class 3 Medical Certificate will be issued when the applicant complies with the requirements of this Part.
- (2) **Physical and mental requirements.**
  - (a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
  - (b) The applicant shall have no established medical history or clinical diagnosis of 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 use of psychoactive substances; this induces dependence syndrome induced by alcohol or other psychoactive substances;
    - (iii) Schizophrenia or a schizotypal or delusional disorder;
    - (iv) A mood (affective) disorder;
    - (v) A neurotic, stress-related or somatoform disorder;

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- (vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
  - (vii) Mental retardation;
  - (viii) A disorder of psychological development;
  - (ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or
  - (x) A mental disorder not otherwise specified.
- (c) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, have access to the details of the case concerned, considers the applicants, condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

*Note 1: Guidance on assessment of applicants treated with antidepressant medication is contained in the Manual of Civil Aviation Medicine (Doc 8984)*

*Note 2: mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organisation as given in the International Statistical Classification of Diseases and Related health Problems 10th Edition – Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.*

- (d) 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.
- (e) 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.
- (f) 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.
- (g) 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.

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- (h) 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.
  - (i) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate and in re-examinations every two (2) years after the age of 50.

*Note 1: The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.*

*Note 2: Guidance on resting and exercise electrocardiography is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (j) The systolic and diastolic blood pressures shall be within normal limits.
- (k) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.

*Note: Extensive guidance on the subject is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (l) There shall be no significant functional or structural abnormality of the circulatory system.
- (m) There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations. Radiography should form a part of the initial chest examination.

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

- (n) 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.
- (o) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (p) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

*Note: Guidance material on hazards of the medications is published in the Manual of Civil Aviation Medicine (Doc 8984).*

- (q) Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- (r) Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.



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

- (s) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- (t) Applicants with sequelae of disease of, or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to stricture or compression shall be assessed as unfit.
- (u) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical Authority designated for the purpose by Ghana and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.
- (v) 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.
- (w) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

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

- (x) 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.
- (y) 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.

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

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

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

- (bb) 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.

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- (cc) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
  - (dd) 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 1: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.*

*Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (ee) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.
- (ff) During the gestational period, precautions should be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications
- (gg) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance (31) the fit assessment should be limited to the period until the end of the 34th week of gestation.
- (hh) 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.
- (ii) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

- (jj) 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.
- (kk) There shall no malformation or any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (ll) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

### **(3) Visual requirements**

- (a) 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.

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- (b) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
- (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 correct visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best-corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.*

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

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

- (d) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.

*Note: If spectacles are used, high-index lenses are needed to minimise peripheral field distortion.*

- (e) Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 should be required to provide a full ophthalmic report prior to initial Medical Certificate and every five years thereafter.

*Note 1: The purpose of the required ophthalmic examination is 1) to ascertain normal visual performance and 2) to identify any significant pathology.*

*Note 2: Guidance on the assessment of monocular applicants is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

- (f) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

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- (g) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correcting already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

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

*Note 2: Any applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.*

*Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.*

- (h) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
- (i) The applicant shall be required to have normal fields of vision.
- (j) The applicant shall be required to have normal binocular function.

*Note: Defective stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.*

**(4) Hearing requirements**

- (a) The applicant shall be tested by pure-tone audiometry.
- (i) At the initial medical examination.
- (ii) At least once every four (4) years up to the age of 40 years.
- (iii) At least once every two (2) years after the age of 40 years.
- (b) 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.
- (c) 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.
- (d) 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.

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## **2.12 LICENCES AND RATINGS FOR REMOTE PILOTS**

*Applicable as of 3 November 2022.*

### **2.12 General rules concerning remote pilot licences and ratings**

#### **2.12.1 General licensing specifications**

2.12.1.1 A person shall not act either as remote pilot-in-command or as remote co-pilot of an RPA in any of the following RPA categories unless that person is the holder of a remote pilot licence issued in accordance with the provisions of this chapter:

- aeroplane
- airship
- glider
- rotorcraft
- powered-lift
- free balloon.

2.12.1.2 The category of RPA shall be endorsed as a category rating on the remote pilot licence.

2.12.1.3 An applicant shall, before being issued with any remote pilot licence or rating, meet such requirements in respect of age, experience, flight instruction, competencies and medical fitness, as are specified for that remote pilot licence or rating

2.12.1.4 An applicant for any remote pilot licence or rating shall demonstrate, in a manner determined by the Licensing Authority, such requirements for knowledge and skill as are specified for that remote pilot licence or rating.

#### **2.12.2 Category ratings**

When established, category ratings shall be for categories of RPA listed in 2.11.1.1.

2.12.2.1 The holder of a remote pilot licence seeking additional category ratings to be added to the existing licence shall meet the requirements of this Annex regarding RPAS appropriate to the privileges for which the category rating is sought.

#### **2.12.3 Class and type ratings**

A class rating shall be established for RPA and associated RPS certificated for single remote pilot operations which have comparable handling, performance and characteristics unless a type rating is considered necessary by the Licensing Authority.

2.12.3.1 A type rating shall be established for RPA and associated RPS certificated for operation with a minimum crew of at least two remote pilots or when considered necessary by the Licensing Authority.

2.12.3.2 When an applicant demonstrates competencies for the initial issue of a remote pilot licence, the category and the ratings appropriate to the class or type of RPA and associated RPS used in the demonstration shall be entered on that remote pilot licence.

2.12.3.3 Recommendation.-The level of performance to be achieved to operate the class or type of RPA for which the ratings are issued should be publicly available.

#### **2.12.4 Circumstances in which class and type ratings are required**

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A Contracting State having issued a remote pilot licence shall not permit the holder of such remote pilot licence to act either as remote pilot-in-command or as remote co-pilot of an RPA and associated RPS unless the holder has received authorization as follows:

- a) the appropriate class rating specified in 2.11.3.1; or
- b) a type rating when required in accordance with 2.11.3.2.

2.12.4.1 When a type rating is issued limiting the privileges to act as remote co-pilot, or limiting the privileges to act as remote pilot only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.12.4.2 When a class rating is issued limiting the privileges to act as remote pilot only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.12.4.3 For the purpose of training, testing, or specific special purpose non-revenue flights, special authorization may be provided in writing to the remote pilot licence holder by the Licensing Authority in place of issuing the class or type rating in accordance with 2.11.4.1. This authorization shall be limited in validity to the time needed to complete the specific flight.

### **2.12.5 Requirements for the issue of class and type ratings**

#### **Class rating**

The applicant shall have demonstrated the competencies required for the safe operations of an RPA of the class for which the rating is sought.

#### *2.12.5.1 Type rating as required by 2.11.3.2*

The applicant shall have:

- a) gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or FSTD in the following:
  - normal flight procedures and manoeuvres during all phases of flight; abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 link, systems and airframe;
  - instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure; and
  - for the issue of an aeroplane category type rating, upset prevention and recovery training.
  - procedures for crew incapacitation and crew coordination including allocation of remote pilot tasks; crew cooperation and use of checklists;

#### *2.12.5.2 Type rating as required by 2.11.3.2*

The applicant shall have:

- a) gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or FSTD in the following:
  - normal flight procedures and manoeuvres during all phases of flight; abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 link, systems and airframe;
  - instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure; and
  - for the issue of an aeroplane category type rating, upset prevention and recovery training.
  - procedures for crew incapacitation and crew coordination including allocation of remote pilot tasks; crew cooperation and use of checklists;

- b) demonstrated the competencies required for the safe operation of the applicable type of RPA and associated

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RPS and demonstrated C2 link management skills, relevant to the duties of a remote pilot-in-command or a remote co-pilot as applicable.

#### **2.12.6 Use of a FSTD for acquisition of experience and demonstration of competencies**

The use of a FSTD for acquiring the experience or performing any manoeuvre required during the demonstration of competencies for the issue of a remote pilot licence or rating shall be approved by the Licensing Authority, which shall ensure that the FSTD used is appropriate to the task.

#### **2.12.7 Circumstances in which authorization to conduct remote pilot licence training is required**

A Contracting State, having issued a remote pilot licence, shall not permit the holder thereof to carry out remote pilot licence training required for the issue of a remote pilot licence or rating, unless such holder has received proper authorization from such Contracting State. Proper authorization shall comprise:

- a) RPAS instructor rating on the holder's remote pilot licence; or
- b) the authority to act as an agent of an approved training organization authorized by the Licensing Authority to carry out remote pilot licence training; or
- c) specific authorization granted by the Contracting State which issued the remote pilot licence.

2.12.7.1 A Contracting State shall not permit a person to carry out remote pilot licence training on a FSTD required for the issue of a remote pilot licence or rating unless such person holds or has held an appropriate remote pilot licence or has appropriate RPAS training and flight experience and has received proper authorization from such Contracting State

#### **2.12.8 Crediting of RPAS flight time**

A student remote pilot shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for the initial issue of a remote pilot licence.

2.12.8.1 The holder of a remote pilot licence shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.12.8.2 The holder of a remote pilot licence shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

2.12.8.3 The holder of a remote pilot licence, when acting as remote co-pilot of an RPA certificated for operation by a single remote pilot but required by a Contracting State to be operated with a remote co-pilot, shall be entitled to be credited with not more than 50 per cent of the remote co-pilot RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade. The Contracting State may authorize that RPAS flight time be credited in full towards the total RPAS flight time required if the RPAS is equipped to be operated by a remote co-pilot and is operated in a multi-crew operation

2.12.8.4 The holder of a remote pilot licence, when acting as remote co-pilot of an RPA certificated to be operated with a remote co-pilot, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.12.8.5 The holder of a remote pilot licence, when acting as remote pilot-in-command under supervision, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.12.8.6 **Recommendation** — *when applying for a new rating, the holder of a remote pilot licence should be*



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### **2.12.9 Limitation of privileges of remote pilots**

Limitation of privileges of remote pilots who attain their 60th birthday and curtailment of privileges of remote pilots who attain their 65th birthday

A Contracting State, having issued remote pilot licences, shall not permit the holders thereof to act as pilot of an RPAS engaged in international commercial air transport operations if the licence holders have attained their 60th birthday or, in the case of operations with more than one pilot, their 65th birthday.

### **2.13 Student remote pilot**

1. A student remote pilot shall meet requirements prescribed by the Contracting State concerned. In prescribing such requirements, Contracting States shall ensure that the privileges granted would not permit student remote pilots to constitute a hazard to air navigation.

2. A student remote pilot shall not fly an RPA solo unless under the supervision of, or with the authority of, an authorized RPAS instructor.

2. (a) A student remote pilot shall not fly an RPA solo on international RPAS operations unless by special or general arrangement between the Contracting States concerned.

#### **2.13.1 Medical fitness**

A Contracting State shall not permit a student remote pilot to fly an RPA solo unless he/she holds a current Class 3 or a current Class 1 Medical Assessment.

### **2.14 Remote Pilot Licence**

#### **2.14.1 General requirements for the issue of the remote pilot licence**

2.14.1.1 Age: The applicant shall not be less than 18 years of age.

#### **2.14.1.2 Knowledge**

The applicant shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of a remote pilot licence and appropriate to the category of RPA and associated RPS intended to be included in the remote pilot licence, in at least the following subjects:

##### *Air law*

- a) rules and regulations relevant to the holder of a remote pilot licence; rules of the air; appropriate air traffic services practices and procedures;
- b) rules and regulations relevant to flight under IFR; related air traffic services practices and procedures;

##### *General RPAS knowledge*

- c) principles of operation and the functioning of engines, systems and instruments;
  - d) operating limitations of the relevant category of RPA and engines; relevant operational information from the flight manual or other appropriate document;
  - e) use and serviceability checks of equipment and systems of appropriate RPA;
  - f) maintenance procedures for airframes, systems and engines of appropriate RPA;
  - g) for rotorcraft and powered-lifts, transmission (power trains) where applicable;
  - h) use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of an RPA under IFR and in instrument meteorological conditions;
  - i) flight instruments; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;
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- j) for airships, physical properties and practical application of gases;
  - k) RPS general knowledge:
    - 1) principles of operation and function of systems and instruments;
    - 2) use and serviceability checks of equipment and systems of appropriate RPS;
    - 3) procedures in the event of malfunctions;
  - l) C2 link general knowledge:
    - 1) different types of C2 links and their operating characteristics and limitations;
    - 2) use and serviceability checks of C2 link systems;
    - 3) procedures in the event of C2 link malfunction;
  - m) detect and avoid capabilities for RPAS;

#### *Flight performance, planning and loading*

- n) effects of loading and mass distribution on RPA handling, flight characteristics and performance; mass and balance calculations;
- o) use and practical application of take-off, landing and other performance data;
- p) pre-flight and en-route flight planning appropriate to RPAS operations under IFR; preparation and submission of air traffic services flight plans under IFR; appropriate air traffic services procedures; altimeter setting procedures;
- q) in the case of airships, rotorcraft and powered-lifts, effects of external loading on handling;

#### *Human performance*

- r) human performance relevant to RPAS and instrument flight, including principles of TEM;

#### *Meteorology*

- s) interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- t) aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect on aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- u) causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
- v) in the case of rotorcraft and powered-lifts, effects of rotor icing;
- w) in the case of high altitude operations, practical high altitude meteorology, including interpretation and use of weathers reports, charts and forecasts; jet streams;

#### *Navigation*

- x) air navigation, including the use of aeronautical charts, instruments and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of RPAS equipment;
- y) use, limitation and serviceability of avionics and instruments necessary for control and navigation;
- z) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;

#### *Operational procedures*

- aa) principles and characteristics of self-contained and external-referenced navigation systems; operation of RPAS equipment;
  - bb) application of TEM to operational performance;
  - cc) 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;
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- dd) altimeter setting procedures;
  - ee) appropriate precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;
  - ff) operational procedures for carriage of freight; potential hazards associated with dangerous goods and their management;
  - gg) requirements and practices for safety briefings to remote flight crew members
  - hh) in the case of rotorcraft, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;
  - ii) operational procedures for handovers and coordination;
  - jj) operational procedures for normal and abnormal C2 link operations;

*Principles of flight*

- kk) principles of flight; and *Radiotelephony*
- ll) communication procedures and phraseology; action to be taken in case of communication failure.

**2.14.1.3 Skill**

2.14.1.3.1 The applicant shall have demonstrated all the competencies of the adapted competency model approved by the Licensing Authority at the level required, to act as remote pilot in command of an RPAS operation within the appropriate category of RPA and associated RPS.

2.14.1.3.2 If the privileges of the remote pilot are to be exercised on a multi-engined RPA, the applicant shall have demonstrated the ability to operate under IFR with degraded propulsion capabilities

**2.14.1.4 Medical fitness**

The applicant shall hold a current Class 3 Medical Assessment or a current Class 1 Medical Assessment.

**2.14.1.4.1 Privileges of the holder of the remote pilot licence and the conditions to be observed in exercising such privileges**

2.14.1.4.1.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.12, the privileges of the holder of a remote pilot licence shall be:

- a) to act as remote pilot-in-command of an RPA and associated RPS, certificated for remote single-pilot operation;
- b) to act as remote co-pilot of an RPA and associated RPS, required to be operated with a remote co-pilot;
- c) to act as a remote pilot-in-command of an RPA and the associated RPS, required to be operated with a remote co-pilot; and
- d) to act either as remote pilot-in-command or as remote co-pilot of an RPAS under IFR.

2.14.1.4.1.2 Before exercising the privileges at night, the remote pilot licence holder shall have received dual instruction in an RPA and associated RPS in night flying, including take-off, landing and navigation.

**2.14.2 Specific requirements for the issue of remote pilot licence**

**2.14.2.1 Experience**

The applicant shall have gained experience during training in operating the RPA and associated RPS to successfully demonstrate the competencies required in 2.13.1.3.

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### **2.14.2.2 Remote Pilot Licence Training**

2.14.2.2.1 In order to meet the requirements of the remote pilot licence, the applicant shall have completed an approved training course. The training shall be competency-based and, if applicable, conducted in a multi-crew operational environment.

2.14.2.2.2 During the training, the applicant shall have acquired the competencies and underpinning skills required for performing as a remote pilot of an RPA certificated for operation under IFR.

2.14.2.2.3 The applicant shall have received dual remote pilot licence training in an RPA and associated RPS, sought from an authorized RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in all phases of flight and the entire operating envelope of an RPAS, including abnormal and emergency conditions, upset prevention and recovery training for the categories concerned, as well as IFR operations.

2.14.2.2.4 If the privileges of the remote pilot are to be exercised on a multi-engined RPA, the applicant shall have received dual instrument remote pilot licence training in a multi-engined RPA within the appropriate category from an authorized RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in the operation of the RPA within the appropriate category with engines inoperative or simulated inoperative.

## **2.15 RPAS Instructor Rating**

### **2.15.1 Requirements for the issue of the rating**

#### *2.15.1.1 Knowledge*

2.15.1.1.1 The applicant shall demonstrate the ability to effectively assess trainees against the adapted competency model used in the approved training programme.

2.15.1.1.2 The applicant shall successfully complete the training and meet the qualifications of an approved training organization appropriate to the delivery of competency-based training programmes

2.15.1.1.3 The RPAS instructor training programme shall focus on the development of competence in the following specific areas:

- a) the adapted competency model of the remote pilot training programme according to the defined grading system used by the RPAS operator or approved training organization;
- b) in accordance with the assessment and grading system of the RPAS operator or approved training organization, making assessments by observing behaviours; gathering objective evidence regarding the observable behaviours of the adapted competency model used;
- c) recognizing and highlighting performance that meets competency standards;
- d) determining root causes for deviations below the expected standards of performance; and
- e) identifying situations that could result in unacceptable reductions in safety margins.

2.15.1.1.4 The applicant shall have met the competency requirements for the issue of a remote pilot licence as appropriate to the category of RPA and associated RPS.

2.15.1.1.5 In addition, the applicant shall have demonstrated a level of competency appropriate to the privileges granted to the holder of an RPAS instructor rating, in at least the following areas:

- a) techniques of applied instruction;
- b) assessment of student performance in those subjects in which ground instruction is given;
- c) the learning process;
- d) elements of effective teaching;

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- e) competency-based training principles, including student assessments;
  - f) evaluation of the training programme effectiveness;
  - g) lesson planning;
  - h) classroom instructional techniques;
  - i) use of training aids, including FSTDs as appropriate;
  - j) analysis and correction of student errors;
  - k) human performance relevant to RPAS, instrument flight and remote pilot licence training, including principles of TEM; and
  - l) hazards involved in simulating system failures and malfunctions in the aircraft.

#### **2.15.1.2 Skill**

2.15.1.2.1 The applicant shall have successfully performed a formal competency assessment, prior to conducting instruction and assessment within a competency-based training programme.

2.15.1.2.2 The competency assessment shall be conducted during a practical training session in the category of RPA and associated RPS for which RPAS instructor privileges are sought, including pre-flight, post-flight and ground instruction as appropriate.

2.15.1.2.3 The competency assessment shall be conducted by a person authorized by the Licensing Authority.

#### **2.15.1.3 Experience**

2.15.1.3.1 The applicant shall have met the requirements for the issue of a remote pilot licence, shall maintain competencies and meet the recent experience requirements for the licence.

2.15.1.3.2 The applicant shall have sufficient training and experience to attain the required level of proficiency in all of the required tasks, manoeuvres, operations and principles, and methods of instruction relevant to

#### **2.15.1.4 Remote pilot licence training.**

The applicant shall, under the supervision of an RPAS instructor authorized by the Licensing Authority for that purpose:

- a) have received training in RPAS instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
- b) have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide remote pilot licence training.

#### **2.15.2 Privileges of the holder of the rating and the conditions to be observed in exercising such privileges**

2.15.2.1 Subject to compliance with the requirements specified in 1.2.5 and 2.12, the privileges of the holder of an RPAS instructor rating shall be:

- a) to supervise solo flights by student remote pilots; and
- b) to carry out remote pilot licence training for the issue of a remote pilot licence and an RPAS instructor rating provided that the RPAS instructor:
  - 1) holds at least the remote pilot licence and rating for which instruction is being given, in the appropriate RPA category and associated RPS;
  - 2) holds the remote pilot licence and rating necessary to act as the remote pilot-in-command of the RPA category and associated RPS on which the instruction is given; and
  - 3) has the RPAS instructor privileges granted endorsed on the remote pilot licence.

2.15.2.2 The applicant, in order to carry out remote pilot licence training in a multi crew operational environment, shall have also met all the instructor qualification requirements.

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2.15.2.3 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges for RPAS *Applicable as of 3 November 2022*.

2.14.2.3.1 The privileges of the holder of an aircraft maintenance licence specified in 4.2.2.1 shall be exercised only in respect of such:

- a) RPA or RPS as are entered on the licence either specifically or under broad categories; or
- b) RPAS and associated C2 link as are entered on the licence either specifically or under broad categories after appropriate knowledge and practical training on maintenance of the RPAS and associated C2 link system.

2.15.2.3.2 Concurrent issuance of two air traffic controller ratings

When two air traffic controller ratings are sought concurrently, the Licensing 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.

GCCAA

**GHANA CIVIL AVIATION (FLIGHT STANDARDS) DIRECTIVES**

**PART 2 – IMPLEMENTING STANDARDS**

GCAA

**IS: 2.2.2 LANGUAGE PROFICIENCY****(1) General**

- (a) 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 (2) below and with the Operational Level (Level 4) of the Language Proficiency Rating Scale as mentioned in paragraph (3) below.

**(2) Holistic descriptors:** Proficient speakers shall:

- (a) Communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations;
- (b) Communicate on common, concrete and work-related topics with accuracy and clarity;
- (c) 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;
- (d) 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
- (e) Use a dialect or accent which is intelligible to the aeronautical community.

**(3) Rating scale:**

- (a) Pre-elementary Level (Level 1):
  - (i) Pronunciation: Performs at a level below the Elementary Level.
  - (ii) Structure: Performs at a level below the Elementary Level.
  - (iii) Vocabulary: Performs at a level below the Elementary Level.
  - (iv) Fluency: Performs at a level below the Elementary Level.
  - (v) Comprehension: Performs at a level below the Elementary Level.
  - (vi) Interactions: Performs at a level below the Elementary Level.
- (b) Elementary Level (Level 2):
  - (i) Pronunciation: Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.
  - (ii) Structure: Shows only limited control of a few simple memorised grammatical structures and sentence patterns.
  - (iii) Vocabulary: Limited vocabulary range consisting only of isolated words and memorised phrases.
  - (iv) Fluency: Can produce very short, isolated, memorised utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.



- (v) Comprehension: Comprehension is limited to isolated, memorised phrases when they are carefully and slowly articulated.
  - (vi) Interactions: Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
- (c) Pre-operational Level (Level 3):
- (i) Pronunciation: Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.
  - (ii) Structure: Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.
  - (iii) Vocabulary: Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.
  - (iv) Fluency: Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.
  - (v) Comprehension: Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.
  - (vi) Interaction: Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
- (d) 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.
- (e) Extended Level (Level 5):
- (i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.
  - (ii) Structure: Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.
  - (iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.
  - (iv) Fluency: Able to speak at length with relative ease on familiar topics, but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.
  - (v) Comprehension: Comprehension is accurate on common, concrete, and work related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.
  - (vi) Interactions: Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.
- (f) Expert Level (Level 6):
- (i) Pronunciation: Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.
  - (ii) Structure: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.

- (iii) Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.
- (iv) Fluency: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.
- (v) Comprehension: Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.
- (vi) Interactions: Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues, and responds to them appropriately.

#### **IS 2.2.3.1 CREDIT FOR MILITARY PILOTS**

- (1) Requirements for a Military Pilot to meet the requirements of 2.2.3.1.
- (2) 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:
  - (a) Pass a knowledge test on the appropriate parts of these Directives that apply to pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules;
  - (b) Present documentation showing compliance with the requirements of paragraph (3) of this subsection for at least one aircraft category rating; and
  - (c) 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 Ghana.
- (3) 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:
  - (a) A Military Pilot check and instrument proficiency check of Ghana in that aircraft category, class or type, if applicable, as PIC during the 12 calendar months before the month of application; and
  - (b) 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.
- (4) 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:

- (a) Passed an instrument proficiency check by an armed force of Ghana in the aircraft category for the instrument rating sought; and
  - (b) Received authorisation from an armed force of Ghana to conduct IFR flights on airways in that aircraft category and class for the instrument rating sought.
- (5) Aircraft type rating. The Authority will issue an aircraft type rating only for aircraft types that the Authority has certified for civil operations.
- (6) 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:
- (a) Holds a category and type rating for that type of aircraft at the airline transport pilot licence level; and
  - (b) Passed an official Military Pilot of Ghana check and instrument proficiency check in that type of aircraft as PIC during the 12 calendar months before the month of application.
- (7) Evidentiary documents. The Authority may accept the following documents as satisfactory evidence of Military Pilot status.
- (a) An official identification card issued to the pilot by an armed force to demonstrate membership in the Ghana Armed Forces.
  - (b) An original or a copy of a certificate of discharge or release from the Ghana Armed Force.
  - (c) At least one of the following:
    - (i) An order of an armed force of Ghana 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 Ghana and received a rating as a Military Pilot.
- (8) 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 Ghana.
- (9) An official armed force of Ghana record of a Military designation as PIC.
- (10) An official record of satisfactory accomplishment of an instrument proficiency check during the 12 calendar months preceding the month of application.

**IS:2.2.4.1.2 PROCEDURES FOR VALIDATION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) The Authority should, before making the agreement mentioned in 2.2.4.1.2 (1)(c) 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.
- (2) 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 (2) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.

- (3) An Air Law test must be arranged if the Air Law system of Ghana 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 Ghana and the other Contracting State.
- (4) 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 2.2.4.2.3 PROCEDURES FOR CONVERSION OF FLIGHTCREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE.**

- (1) When the Authority issues a converted licence based on a licence from another Contracting State it shall remain responsible for the converted licence.
- (2) The Authority should, before making the agreement mentioned in 2.2.4.2.3(1)(c) 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.
- (3) An inspector, legal counsel and or licensing subject matter experts from Ghana, 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 of Ghana. The report, and the regulatory comparison noted in item (2) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.
- (4) An Air Law test must be arranged if the Air Law system of Ghana 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 Ghana and the other Contracting State.
- (5) Renewal and re-issue of converted licences and ratings:
  - (a) When examiners are available in Ghana 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 or checks will be performed by the authorised examiners of Ghana.;
  - (b) When examiners are not available in Ghana 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 or checks from the other Contracting State can be arranged in the agreement mentioned in 2.2.4.2.3(1)(c).

- (6) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.
- (7) 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 2.2.4.1.8 PROCEDURES FOR VALIDATION OF AME LICENCES BY RELIANCE  
UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) The Authority should, before making the agreement mentioned in 2.2.4.1.8(1)(c) 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.
- (2) An inspector, legal counsel and or licensing subject matter experts from Ghana, 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 (2) shall serve the basis for a government-to- government agreement between the involved States regarding use or reliance of the licensing system.
- (3) An Air Law test must be arranged if the Air Law system of Ghana is different from the Air Law system from the other Contracting State. The knowledge test may also include Ghana airworthiness requirements governing certification and continuing airworthiness, and approved maintenance organisations and procedures if those Directives are different from the Contracting State.
- (4) 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 2.2.4.2.6 PROCEDURES FOR CONVERSION OF AME LICENCES BY RELIANCE  
UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE**

- (1) The Authority that issues a converted licence based on a licence from another Contracting State remains responsible for the converted licence.
- (2) The Authority should, before making the agreement mentioned in 2.2.4.2.6(1)(c) 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.
- (3) An inspector, legal counsel and or licensing subject matter experts from Ghana, 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 of Ghana. The report, and the regulatory comparison noted in item (2) shall serve the basis for a government-to-government agreement between the involved States regarding use or reliance of the licensing system.

- (4) An Air Law test must be arranged if the Air Law system of Ghana is different from the Air Law system from the other Contracting State. The knowledge test may also include Ghana airworthiness requirements governing certification and continuing airworthiness, and approved maintenance organisations and procedures if those regulations are different from the Contracting State.
- (5) Renewal and re-issue of converted licences and ratings:
  - (a) when examiners are available in Ghana 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 or checks will be performed by the authorised examiners of Ghana;
  - (b) when examiners are not available in Ghana 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).
- (6) Application for the conversion of a licence from another Contracting State shall be done by submitting to the Authority a properly filled out form, which form can be obtained from the Authority.

#### **IS 2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE**

- (1) The following details shall appear on the licence and the numbering scheme shall be in Roman numerals.
  - (I). Name of state (in bold type) {Republic of Ghana};
  - (II). Title of licence (in very bold type)
  - (III). Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;
  - (IV). Name of holder in full;
  - (V). )Date of birth;
  - (VI). Address of holder;
  - (VII). Nationality of holder;
  - (VIII). Signature of holder;
  - (IX). Authority and, where necessary, conditions under which the licence is issued;
  - (X). Certification concerning validity and authorisation for holder to exercise privileges appropriate to the licence;
  - (XI). Signature of officer issuing the licence and the date of such issue;
  - (XII). Seal or stamp of authority issuing the licence;

- (XIII). Ratings, (e.g. Category, class, type of aircraft, airframe, aerodrome control, etc.);
  - (XIV). 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);
  - (XV). Any other details desired by the State issuing the licence.
- (2) The privileges and ratings shall be clearly identified on the licence in items (1) (IX) and (XII).

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

### IS 2.3.1.7 RECORDING OF FLIGHT TIME

- (1) The details in the records of flights flown as pilot shall contain the items in (2) and (3) below.
- (2) 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.
  - (a) Personal details:
    - (i) Name of the holder.
    - (ii) Address of the holder.
  - (b) For each flight:
    - (i) Name of PIC.
    - (ii) Date of flight.
    - (iii) Place and time of departure and arrival.
    - (iv) Type of aircraft and registration.
  - (c) 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.
  - (d) Pilot function:
    - (i) Solo.
    - (ii) PIC.
    - (iii) Co-pilot.
    - (iv) Dual.
    - (v) Flight instructor.
- (3) Logging of flight time.
  - (a) 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.
  - (b) 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.
- (c) 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.
- (d) 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.
- (e) 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.

#### **IS 2.3.2.5 CATEGORY II AND III AUTHORISATION**

- (1) 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.
- (2) Upon original issue the authorisation will contain the following limitations—
  - (a) For Category II operations, 1,600 feet RVR and a 150-foot decision height; and
  - (b) For Category III operations, as specified in the authorisation document.
- (3) To remove the limitations on a Category II or Category III pilot authorisation—
  - (a) 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
  - (b) A Category III limitation holder may remove the limitation by showing experience as specified in the authorisation.

- (4) 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.
- (5) Category II: skill test requirements.
- (a) 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.
- (b) To be eligible for the skill test for an authorisation under this subpart, 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.
- (c) An applicant shall accomplish the approaches specified in paragraph (e)(2)(ii)(B) of this subpart—
- (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.
- (d) The flight time acquired in meeting the requirements of paragraph (e)(2)(ii)(B) of this subpart may be used to meet the requirements of paragraph (e)(2)(ii)(A) of this subpart.
- (6) 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 Runway Visual Range (RVR);
  - (v) Use of visual clues, their availability or limitations, and altitude at which they are normally discernible at reduced RVR readings;
  - (vi) Procedures and techniques related to transition from nonvisual to visual flight during a final approach under reduced RVR;
  - (vii) Effects of vertical and horizontal windshear;
  - (viii) Characteristics and limitations of the ILS and runway lighting system;
  - (ix) Characteristics and limitations of the flight director system, auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other required Category II equipment;
  - (x) Assigned duties of the SIC during Category II approaches, unless the aircraft for which authorisation is sought does not require an SIC; and
  - (xi) Instrument and equipment failure warning systems.
- (2) Flight increment. The following requirements apply to the flight increment of the practical test—
- (i) The flight increment shall be conducted in an aircraft of the same category, class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved flight simulator that—
    - (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 (2) ILS approaches to 100 feet AGL including at least one landing and one missed approach.
  - (iii) All approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands.
  - (iv) If a multiengine aeroplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker.

- (v) If an approved multiengine flight simulator or approved multiengine flight training device is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.
  - (vi) For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in co-ordination with a SIC who holds a type rating in the aircraft in which the authorisation is sought.
  - (vii) An inspector or evaluator may conduct oral questioning at any time during a practical test.
- (19) 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 (6) 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 subpart—
    - (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.

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- (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 (2) 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 III(b) 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 III(b) operations
- (6) An inspector or evaluator may conduct oral questioning at any time during the practical test.

### IS 2.3.3 STUDENT PILOTS

A student pilot who is receiving training for solo flight shall receive and log flight training for the following manoeuvres and procedures, as applicable for each category and class rating as specified in the applicable subpart 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**

- (1) 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:
- (a) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
  - (b) Taxiing, or surface operations, including runups.
  - (c) Takeoffs and landings, including normal and crosswind.
  - (d) Straight and level flight and turns in both directions.
  - (e) Climbs and climbing turns.
  - (f) Aerodrome traffic patterns including entry and departure procedures.
  - (g) Collision avoidance, windshear avoidance and wake turbulence avoidance.
  - (h) Descents, with and without turns, using high and low drag configurations.
  - (i) Flight at various airspeeds from cruise to slow flight.
  - (j) 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.
  - (k) Emergency procedures and equipment malfunctions.
  - (l) Ground reference manoeuvres.
  - (m) Approaches to a landing area with simulated engine malfunctions.
  - (n) Slips to a landing (SE only).
  - (o) Go-arounds.

**IS 2.3.3.3 STUDENT PILOTS: MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—HELICOPTER CATEGORY**

- (1) 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:
- (a) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
  - (b) Taxiing, or surface operations, including runups.
  - (c) Takeoffs and landings, including normal and crosswind.
  - (d) Straight and level flight and turns in both directions.
  - (e) Climbs and climbing turns.
  - (f) Aerodrome traffic patterns including entry and departure procedures.

- (g) Collision avoidance, windshear avoidance and wake turbulence avoidance.
- (h) Descents, with and without turns, using high and low drag configurations.
- (i) Flight at various airspeeds.
- (j) Emergency procedures and equipment malfunctions.
- (k) Ground reference manoeuvres.
- (l) Approaches to the landing area.
- (m) Hovering and hovering turns.
- (n) Go-arounds.
- (o) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to hover.
- (p) Rapid decelerations.
- (q) Simulated one-engine-inoperative approaches and landings for multi-engine helicopters (ME).

**IS 2.3.3.4 STUDENT PILOTS: MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—POWERED-LIFT CATEGORY**

- (1) 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:
  - (a) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
  - (b) Taxiing, or surface operations, including runups.
  - (c) Takeoffs and landings, including normal and crosswind.
  - (d) Straight and level flight and turns in both directions.
  - (e) Climbs and climbing turns.
  - (f) Aerodrome traffic patterns including entry and departure procedures.
  - (g) Collision avoidance, windshear avoidance and wake turbulence avoidance.
  - (h) Descents, with and without turn.
  - (i) Flight at various airspeeds from cruise to slow flight.
  - (j) 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.
  - (k) Emergency procedures and equipment malfunctions.
  - (l) Ground reference manoeuvres.
  - (m) Approaches to a landing area with simulated engine failure.
  - (n) Go-arounds.
  - (o) Approaches to the landing area.



- (p) Hovering and hovering turns.
- (q) Simulated one-engine-inoperative approaches and landings for multi-engine powered-lift (ME).

**IS 2.3.3.5 STUDENT PILOTS: MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—AIRSHIP CATEGORY**

- (1) 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:
  - (a) Proper flight preparation procedures, including preflight planning and preparation, powerplant operation and aircraft systems.
  - (b) Taxiing, or surface operations, including runups.
  - (c) Takeoffs and landings, including normal and crosswind.
  - (d) Straight and level flight and turns in both directions.
  - (e) Climbs and climbing turns.
  - (f) Aerodrome traffic patterns including entry and departure procedures.
  - (g) Collision avoidance, windshear avoidance and wake turbulence avoidance.
  - (h) Descents, with and without turn.
  - (i) Flight at various airspeeds from cruise to slow flight.
  - (j) Emergency procedures and equipment malfunctions.
  - (k) Ground reference manoeuvres.
  - (l) Rigging, ballasting, and controlling pressure in the ballonets, and superheating.
  - (m) 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**

- (2)
  - (1) 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**

- (1) 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:
  - (a) Proper flight preparation procedures, including preflight planning and preparation, aircraft systems, and, if applicable, powerplant operations;
  - (b) Taxiing or surface operations, including runups, if applicable;
  - (c) Launches, including normal and crosswind;
  - (d) Straight and level flight, and turns in both directions, if applicable;
  - (e) Aerodrome traffic patterns, including entry procedures;
  - (f) Collision avoidance, windshear avoidance, and wake turbulence avoidance;
  - (g) Descents with and without turns using high and low drag configurations;
  - (h) Flight at various airspeeds;
  - (i) Emergency procedures and equipment malfunctions;
  - (j) Ground reference manoeuvres;
  - (k) Inspection of towline rigging and review of signals and release procedures, if applicable;
  - (l) Aerotow, ground tow, or self-launch procedures;
  - (m) Procedures for disassembly and assembly of the glider;
  - (n) Stall entry, stall, and stall recovery;
  - (o) Straight glides, turns, and spirals;
  - (p) Landings, including normal and crosswind;
  - (q) Slips to a landing;
  - (r) Procedures and techniques for thermalling; and
  - (s) Emergency operations, including towline break procedures.

**IS 2.3.4 PRIVATE PILOT LICENCE****IS 2.3.4.2 PPL SKILL TEST—AEROPLANE CATEGORY**

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

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

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

- (2) Preflight preparation; including the applicant’s knowledge and performance of the following tasks—
- (a) Licences and documents.
  - (b) Airworthiness requirements
  - (c) Weather information.
  - (d) Cross-country flight planning.
  - (e) National airspace system.
  - (f) Performance and limitations.
  - (g) Operation of system.
  - (h) Principles of flight.
  - (i) Water and Seaplane Characteristics (S).
  - (j) Seaplane bases, maritime rules and aids to marine navigation (S).
  - (k) Aeromedical factors.
- (3) Preflight procedures; including the applicant’s knowledge and performance of the following tasks—
- (a) Preflight inspection.
  - (b) Cockpit management.
  - (c) Engine Starting
  - (d) Taxiing (L).
  - (e) Taxiing and Sailing (S).
  - (f) Before takeoff check.
- (4) Aerodrome and seaplane operations; including the applicant’s knowledge and performance of the following tasks—
- (a) Radio communications and ATC light signals.
  - (b) Traffic patterns.
-

- (c) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting.
- (5) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
  - (a) Normal and crosswind takeoff and climb.
  - (b) Normal and crosswind approach and landing.
  - (c) Soft-field takeoff and climb (SE) (L).
  - (d) Soft-field approach and landing (SE) (L).
  - (e) Short-field (Confined area (S)) takeoff and maximum performance climb.
  - (f) Short-field approach (Confined area (S)) and landing.
  - (g) Glassy Water takeoff and climb (S).
  - (h) Glassy water approach and landing (S).
  - (i) Rough water takeoff and climb (S).
  - (j) Rough water approach and landing (S).
  - (k) Forward slip to a landing (SE).
  - (l) Go-around /rejected landing.
- (6) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks—
  - (i) Steep turns.
- (7) Ground reference manoeuvres; including the applicant's knowledge and performance of the following tasks—
  - (a) Rectangular course.
  - (b) S-turns.
  - (c) Turns around a point.
- (8) Navigation; including the applicant's knowledge and performance of the following tasks—
  - (a) Pilotage and dead reckoning.
  - (b) Navigation systems and radar services.
  - (c) Diversion.
  - (d) Lost procedures.
- (9) Slow flight and stalls; including the applicant's knowledge and performance of the following tasks—
  - (a) Manoeuvring during slow flight.
  - (b) Power-off stalls.
  - (c) Power-on stalls
  - (d) Spin awareness

- (10) Basic instrument manoeuvres; including the applicant's knowledge and performance of the following tasks—
- (a) Straight-and-level flight.
  - (b) Constant airspeed climbs.
  - (c) Constant airspeed descents.
  - (d) Turns to headings.
  - (e) Recovery from unusual flight.
  - (f) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks—
- (11) Emergency operations; including the applicant's knowledge and performance of the following tasks—
- (a) Emergency approach and landing.
  - (b) Emergency descent (ME).
  - (c) Engine failure during takeoff before minimum controllable airspeed (VMC) (simulated) (ME).
  - (d) Engine failure after lift-off (simulated) (ME).
  - (e) Approach and landing with an inoperative engine (simulated) (ME).
  - (f) Systems and equipment malfunctions.
  - (g) Emergency equipment and survival gear.
- (12) Multi-engine operations (ME); including the applicant's knowledge and performance of the following tasks—
- (a) Manoeuvring with one engine inoperative.
  - (b) VMC demonstration.
  - (c) Engine failure during flight (by reference to instruments).
  - (d) Instrument approach – one engine inoperative (by reference to instruments).
- (13) Night operation; including the applicant's knowledge and performance of the following tasks—
- (i) Night preparation.
  - (2) 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**

(3)

- (1) 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 IS 2.3.4.5 PPL SKILL TEST—AIRSHIP CATEGORY**

(4)

- (1) 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**

- (5)
  - (1) 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**

(6)

- (1) 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**

(7)

- (1) 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 CPL SKILL TEST—HELICOPTER CATEGORY**

(8)

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



- (4) Hovering manoeuvres; including the applicant's knowledge and performance of the following tasks—
  - (i) Vertical takeoff and landing.
  - (ii) Slope operations.
  - (iii) Surface taxi.
  - (iv) Hover taxi.
  - (v) Air taxi.
- (5) Takeoffs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks—
  - (i) Normal and crosswind takeoff and climb.
  - (ii) Normal and crosswind approach and landing.
  - (iii) Maximum performance takeoff and climb.
  - (iv) Steep approach.
  - (v) Rolling takeoff.
  - (vi) Shallow approach and running/roll-on landing.
  - (vii) Go-around.
- (6) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks—
  - (i) Rapid deceleration.
  - (ii) 180 Degrees autorotation.
- (7) Navigation; including the applicant's knowledge and performance of the following tasks—
  - (i) Pilotage and dead reckoning.
  - (ii) Radio navigation and radar services.
  - (iii) Diversion.
  - (iv) Lost procedures.
- (8) Emergency operations; including the applicant's knowledge and performance of the following tasks—
  - (i) Power failure at a hover.
  - (ii) Power failure at altitude.
  - (iii) Systems and equipment malfunctions.
  - (iv) Settling-with-power.
  - (v) Low rotor RPM recovery.
  - (vi) Dynamic rollover.

- (vii) Ground resonance.
- (viii) Low G conditions.
- (ix) Emergency equipment and survival gear.
- (9) Special operations; including the applicant's knowledge and performance of the following tasks—
  - (i) Confined area operation.
  - (ii) Pinnacle/platform operations.
- (10) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—
  - (i) After landing, parking and securing.

**IS 2.3.5.5 CPL SKILL TEST—AIRSHIP CATEGORY**

- (9)
- (1) The skill test for the commercial pilot licence – airship shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
    - (1) Technical subjects, including the applicant's knowledge and performance of the following tasks—
      - (i) Aeromedical factors.
      - (ii) Visual scanning and collision avoidance.
      - (iii) Use of distractions during flight training.
      - (iv) Principles of flight.
      - (v) Airship weight-off, ballast, and trim.
      - (vi) Night operations.
      - (vii) Directives 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 takeoff.
  - (v) Ground handling.
  - (vi) Before takeoff check.
- (5) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—
  - (i) Radio communications.
  - (ii) Traffic pattern operations.
  - (iii) Aerodrome, runway, and taxiway markings and lighting.
- (6) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—
  - (i) Flight to, from, and at pressure height.
  - (ii) In-flight weigh-off.
  - (iii) Manual pressure control.
  - (iv) Static and dynamic trim.
- (7) Navigation, including the applicant's knowledge and performance of the following tasks—
  - (i) Pilotage and dead reckoning.
  - (ii) Diversion.
  - (iii) Lost procedures.
  - (iv) Navigation systems and air traffic control radar services.
- (8) Emergency operations, including the applicant's knowledge and performance of the following tasks—
  - (i) Aborted takeoff.
  - (ii) Engine failure during takeoff.
  - (iii) Engine failure during flight.
  - (iv) Engine fire during flight.
  - (v) Envelope emergencies.
  - (vi) Free ballooning.
  - (vii) Ditching and emergency landing.

- (viii) Systems and equipment malfunctions.
- (9) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
  - (i) Masting.
  - (ii) Post-masting.

**IS 2.3.5.6 CPL SKILL TEST—BALLOON CATEGORY**

(10)

- (1) 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:

*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) Directives 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 CPL SKILL TEST—GLIDER CATEGORY**

(11)

- (1) The skill test for the commercial pilot licence – glider category shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
  - (1) 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) Maneuvering at minimum control airspeed.
  - (ii) Stall recognition and recovery.
- (13) Emergency operations, including the applicant's knowledge and performance of the following tasks—
  - (i) Simulated off-aerodrome landing.
  - (ii) Emergency equipment and survival gear.
- (14) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
  - (i) After-landing and securing.

**IS 2.3.6.2 MULTI-CREW PILOT LICENCE SKILL TEST - AEROPLANE CATEGORY**

(12)

- (1) The skill test for the multicrew pilot licence shall determine that the applicant, as pilot flying and pilot not flying, possesses the required skills in the following competency areas to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with at least two pilots under VFR and IFR:
  - (1) Apply threat and error management principles;
  - (2) Perform aeroplane ground operations;
  - (3) Perform take-off
  - (4) Perform climb;
  - (5) Perform cruise;
  - (6) Perform descent;
  - (7) Perform approach;
  - (8) Perform landing; and perform after-landing and aeroplane post-flight operations.

**IS 2.3.7.2 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—AEROPLANE CATEGORY**

(13)

- (1) 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 2.3.7.3 ATPL AND AIRCRAFT TYPE RATING SKILL TEST—  
HELICOPTER CATEGORY**

(14)

- (1) The skill test for the airline transport pilot licence for helicopters shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:
- (1) Preflight preparations and checks; including the applicant's knowledge and performance of the following tasks—
    - (i) Equipment examination.
    - (ii) Performance and limitations.
  - (2) Preflight procedures; including the applicant's knowledge and performance of the following tasks—
    - (i) Preflight inspection.
    - (ii) Powerplant start.
    - (iii) Taxiing.
    - (iv) Pre-takeoff checks.
  - (3) Takeoff and departure phase; including the applicant's knowledge and performance of the following tasks—
    - (i) Normal and crosswind takeoff.
    - (ii) Instrument takeoff.
    - (iii) Powerplant failure during takeoff.
    - (iv) Rejected takeoff.
    - (v) Instrument departure.
  - (4) In-flight manoeuvres; including the applicant's knowledge and performance of the following tasks—

- (i) Steep turns.
  - (ii) Powerplant failure-multi-engine helicopter.
  - (iii) Powerplant failure-single-engine helicopter.
  - (iv) Recovery from unusual altitudes.
  - (v) Settling with power.
- (5) Instrument procedures; including the applicant's knowledge and performance of the following tasks—
- (i) Instrument arrival.
  - (ii) Holding.
  - (iii) Precision instrument approaches.
  - (iv) Non-precision instrument approaches.
  - (v) Missed approach.
- (6) Landings and approaches to landings; including the applicant's knowledge and performance of the following tasks—
- (i) Normal and crosswind approaches and landings.
  - (ii) Approach and landing with simulated powerplant failure-multiengine helicopter.
  - (iii) Rejected landing.
- (7) Normal and abnormal procedures; including the applicant's knowledge and performance of the tasks.
- (8) Emergency procedures; including the applicant's knowledge and performance.
- (9) Postflight procedures; including the applicant's knowledge and performance of the following tasks—
- (i) After landing procedures.
  - (ii) Parking and securing.

**IS 2.3.8.2 INSTRUMENT RATING SKILL TEST AND PROFICIENCY CHECK**

(15)

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

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

- (1) Preflight preparation; including the applicant's knowledge and performance of the following tasks—
  - (i) Weather information.
  - (ii) Cross-country flight planning.
- (2) Preflight procedures; including the applicant's knowledge and performance of the following tasks—
  - (i) Aircraft systems related to IFR operations.
  - (ii) Aircraft flight instruments and navigation equipment.
  - (iii) Instrument cockpit check.
- (3) Air traffic control clearances and procedures; including the applicant's knowledge and performance of the following tasks—
  - (i) Air traffic control clearances.
  - (ii) Compliance with departure, en route and arrival procedures and clearances.
  - (iii) Holding procedures.
- (4) Flight by reference to instruments; including the applicant's knowledge and performance of the following tasks—
  - (i) Straight-and-level flight.
  - (ii) Change of airspeed.
  - (iii) Constant airspeed climbs and descents.
  - (iv) Rate climbs and descents.
  - (v) Timed turns to magnetic compass headings.
  - (vi) Steep turns.
  - (vii) Recovery from unusual flight attitudes.
- (5) Navigation systems; including the applicant's knowledge and performance of the following tasks—
  - (i) Intercepting and tracking navigational systems and DME Arcs.
  - (ii) Instrument approach procedures; including the applicant's knowledge and performance of the following tasks—
    - (iii) Non-precision instrument approach.
    - (iv) Precision ILS instrument approach.
    - (v) Missed approach.
    - (vi) Circling approach.
    - (vii) Landing from a straight-in or circling approach.
- (6) Emergency operations; including the applicant's knowledge and performance of the following tasks—
  - (i) Loss of communications.

- (ii) One engine inoperative during straight-and-level flight and turns (ME).
- (iii) One engine inoperative – instrument approach (ME).
- (iv) Loss of gyro attitude and/or heading indicators.
- (7) Post-flight procedures; including the applicant's knowledge and performance of the following tasks—
  - (i) Checking instruments and equipment.

**IS 2.3.9.2 FLIGHT INSTRUCTOR SKILL TEST AND PROFICIENCY CHECK**

(16)

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

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

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

- (1) Fundamentals of instruction; including the applicant's knowledge and performance of the following tasks—
  - (i) The learning process.
  - (ii) The teaching process.
  - (iii) Teaching methods.
  - (iv) Evaluation.
  - (v) Flight instructor characteristics and responsibilities.
  - (vi) Human factors.
  - (vii) Planning instructional activity.
- (2) Technical subject areas; including the applicant's knowledge and performance of the following tasks—
  - (i) Aeromedical factors.
  - (ii) Visual Scanning and collision avoidance.
  - (iii) Principles of flight.
  - (iv) Aeroplane flight controls.
  - (v) Aeroplane weight and balance.

- (vi) Navigation and flight planning.
  - (vii) Night operations.
  - (viii) High altitude operations.
  - (ix) Directives 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) Maneuvering 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).
- (2) **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) Directives 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) Anti-torque 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.
- (3) **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) Directives 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) Mastings.
  - (ii) Post-masting.
- (4) **Balloon Category.** The skill test and proficiency check for the flight instructor licence with balloon instructor rating shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category and class of aircraft:

*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) Directives 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—
  - (xii) Navigation.
- (9) Emergency operations, including the applicant's knowledge and performance of the following tasks—
- (i) Systems and equipment malfunctions.
  - (ii) Emergency equipment and survival gear.
  - (iii) Water landing.
  - (iv) Thermal flight.
- (10) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—
- (i) Recovery.
- (11) Deflation and pack-up.
- (i) Refueling (BH).
- (5) **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) Directives 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) Maneuvering 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.
- (6) **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) Directives 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.
- (7) **Flight Instructor for Additional Type Ratings.** The skill test and proficiency checks for instructors for additional type ratings - aeroplane and helicopter shall include at least the following areas of operation:

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

- (1) Technical subject areas
  - (i) The content of the technical subject areas shall cover the areas as applicable to the aircraft class or type.
  - (ii) Flight simulator; including the applicant's knowledge and performance of the following tasks—
    - (A) Use of checklist, setting of radios/navigation aids.
    - (B) Starting engines.
    - (C) Takeoff checks.
    - (D) Instrument takeoff, transition to instruments after liftoff.
    - (E) Engine failure during take-off between V1 and V2 (Aeroplane).
    - (F) Aborted takeoff prior to reaching V1 (A).
    - (G) High mach buffeting, specific flight characteristics (if necessary) (A).
    - (H) Takeoff with engine failure prior to Takeoff Decision Point (TDP) or Defined Point After Takeoff (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 V<sub>2</sub>, after reaching climb out attitude (Aeroplane).
  - (F) Engine failure during takeoff short after TDP or DPATO after reaching climb out attitude (Helicopter).
  - (G) Other emergency procedures (if necessary).
  - (H) Instrument approaches to required minimum decision height, manual one engine out during approach and landing or go-around.
  - (I) One engine simulated inoperative go-around from required minimum decision height.
  - (J) One engine (critical) simulated inoperative landing.

**IS 2.3.10.1 SKILL TEST FOR DESIGNATED PILOT EXAMINERS**

(17)

- (1) 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.
- (2) 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.

The Authority inspector will evaluate the pilot examiner applicant's plan of action for completeness and efficiency.

#### **IS 2.4.4.4 FLIGHT ENGINEER: SKILL TEST AND PROFICIENCY CHECK**

(18)

- (1) 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 SKILL TEST FOR DESIGNATED FLIGHT ENGINEER EXAMINERS**

(19)

- (1) 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.
- (2) 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.

**IS 2.5.4.2 FLIGHT NAVIGATOR LICENCE: SKILL TEST AND PROFICIENCY CHECK**

(20)

- (1) The skill test and proficiency check for the flight navigator licence shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category of aircraft.
- (1) Star identification (pointer system);
  - (2) Use of star finder;
  - (3) Shots against pre-computed curve;
  - (4) 3-star fix or LOP of sun;
  - (5) Compensation and swinging of compass;
  - (6) Alignment of drift meter;
  - (7) Alignment of astro-compass or periscopic sextant;
  - (8) Interpretation of weather data;
  - (9) Preparation of flight plan;
  - (10) Computation of fuel load;
  - (11) Determination of PNR and equitime point;
  - (12) Preparation of cruise control chart;
  - (13) Use and interpretation of cruise control chart;
  - (14) Equipment check;
  - (15) Location of emergency equipment;

- (16) Knowledge of emergency equipment;
- (17) Use of flux-gate and gyrosyn compasses;
- (18) Setting and altering course;
- (19) Chart knowledge – sectional or WAC chart;
- (20) Pilotage;
- (21) Computer computation ability;
- (22) Determine of track, ground speed, and wind by double drift;
- (23) Determine of ground speed and wind by drift meter timing;
- (24) Air plots;
- (25) ETA's;
- (26) Knowledge and use of radio facilities;
- (27) Care in turning;
- (28) Station identification;
- (29) Use of manual loop;
- (30) Evaluation of radio bearings;
- (31) Correction and plotting of radio bearings;
- (32) Diversion to alternate – computer compass heading, ETA, fuel remaining;
- (33) Basic adjustments of Loran Receiver;
- (34) Knowledge and use of Loran;
- (35) Knowledge and use of consol method;
- (36) Use of absolute altimeter;
- (37) Determination of “:D” factor;
- (38) Determination of drift by altimetry;
- (39) Interpretation and application of altimeter data;
- (40) Single LOP interpretation (radio, press)
- (41) Single LOP approach;
- (42) Use of astro-compass;
- (43) Determination of compass deviation;
- (44) Accuracy of celestial fixes;
- (45) Selection of bodies for observation;
- (46) Handling of routine reports;
- (47) Log entries;

- (48) Weather observations and interpretation in flight;
  - (49) Determination of wind from fixes;
  - (50) Estimates for letdown;
  - (51) Over-all speed;
  - (52) Over-all accuracy;
  - (53) Alertness;
  - (54) Co-ordination of navigation methods;
  - (55) Co-ordination of duties with time.
- (2) The areas of operation may be accomplished as follows:
- (1) Items 1 through 7 above may be accomplished on the ground.
  - (2) Items 8 through 54 may be accomplished in flight.
  - (3) Items 17, 22, 23, 33, 34, 35, 36, 37, 38, 39 may be completed by oral questioning when a lack of ground facilities or navigation equipment makes such procedures necessary.

**IS 2.5.6.2 SKILL TEST FOR DESIGNATED FLIGHT NAVIGATOR EXAMINER**

(21)

- (1) The skill test for initial designation and renewal of a flight navigator examiner shall contain both the appropriate oral questioning and aircraft or flight simulation training device performance in accordance with the applicable skill test for the aircraft and class ratings.
- (2) Methods of skill testing: The Authority inspector will choose one of the following methods to test a flight navigator examiner applicant. The methods are listed in order of preference but scheduling difficulties may preclude use of the preferred method of testing.
  - (1) Authority inspector evaluates the flight navigator examiner applicant testing an actual flight navigator applicant for a licence or proficiency check.
    - (i) The Authority will arrange for the flight navigator examiner applicant to conduct a skill test for an actual flight navigator applicant for a licence or proficiency check, and the Authority inspector will observe the test from within the aircraft or flight simulation training device as applicable.
    - (ii) The Authority inspector will evaluate the flight navigator examiner applicant's performance while the flight navigator examiner applicant evaluates the flight navigator licence or proficiency check applicant.
    - (iii) Any discussion between the flight navigation examiner applicant and the Authority inspector concerning the flight navigator examiner applicant's performance with the flight navigator applicant will be held in private.

- (iv) At the conclusion of the skill test for the actual flight navigator licence or proficiency check:
  - (A) If the applicant has passed the skill test or proficiency check, the pilot examiner applicant will fill out the appropriate documentation for the pilot applicant while the Authority inspector observes. The Authority inspector will sign any documentation needed.
  - (B) If the pilot applicant does not pass the skill test or proficiency check, the Authority inspector will complete and sign the appropriate document needed.
- (2) Authority inspector playing the role of flight navigator applicant for a skill test.
  - (i) The Authority inspector will play the role of a flight navigator applicant for a skill test appropriate to the designation the flight navigator examiner applicant is seeking.
  - (ii) If the Authority inspector answers a question incorrectly to test whether the flight navigator examiner applicant recognises an incorrect answer, the incorrect response must be obviously wrong.
- (3) Authority inspector gives a flight skill test to the flight navigator examiner applicant.
  - (i) The Authority inspector will test the flight navigator examiner applicant on selected manoeuvres in order to assess the flight navigator examiner applicant's flight proficiency and ability to evaluate a flight navigator applicant in accordance with the appropriate skill test or proficiency check.
  - (ii) The Authority inspector will evaluate the flight navigator examiner applicant's plan of action for completeness and efficiency.

**IS 2.6.2.7 AIRCRAFT MAINTENANCE ENGINEER SKILL REQUIREMENTS**

(22)

- (1) Each applicant for an Aircraft 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.
- (2) **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 maintenance engineer privileges and limitations.
- (3) **AME Airframe Rating.** The skill test for the airframe operation:
- (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.
- (4) **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.
- (5) **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.

**IS 2.8.3.2 SKILL TEST FOR THE FLIGHT DISPATCHER LICENCE**

- (23)
- (1) The skill test for the flight dispatcher 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**

(24)

- (1) The skill test for the senior parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation:
  - (1) Certification, including the applicants' knowledge and performance of the following tasks—
    - (i) Senior Parachute Rigger experience requirements.
    - (ii) Senior Parachute Rigger test requirements.
  - (2) Privileges, limitations and operating rules, including the applicants' knowledge and performance of the following tasks—
    - (i) Senior Parachute Rigger privileges.
    - (ii) Required facilities and equipment.
    - (iii) Performance standards.
    - (iv) Recordation.
    - (v) Manufacturer's packing instructions.



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

- (ii) Replacement of lower control line (ram-air canopy).
- (iii) Application of non-destructive test method TS-108.
- (iv) Line attachment loop replacement.
- (v) Removal and installation of grommets.
- (vi) Sewing machine operation.
- (vii) Cascade line replacement.
- (viii) Nicopress sleeve installation.
- (ix) Replacement of V-tab (butterfly tab).
- (x) Replacement of continuous suspension line.
- (xi) Suspension line replacement in ram-air canopy.
- (xii) Container patching.
- (xiii) Ram-air canopy repair limitations.
- (xiv) Ram-air canopy repair adjacent to a seam.

**IS 2.10.1.5 MASTER PARACHUTE RIGGER LICENCE SKILL TEST**

(25)

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

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

- (viii) Nicopress sleeve installation.
  - (ix) Replacement of V-tab (butterfly tab).
  - (x) Replacement of continuous suspension line.
  - (xi) Suspension line replacement in ram-air canopy.
  - (xii) Container patching.
  - (xiii) Ram-air canopy repair limitations.
  - (xiv) Ram-air canopy repair adjacent to a seam.
- (7) Parachute Alterations, including the applicants' knowledge and performance of the following tasks—
- (i) Alteration data approval.
  - (ii) Install an automatic activation device.
  - (iii) Fabrication binding corners.
  - (iv) Altering riser connections.
  - (v) Bridle cord alteration.
  - (vi) Threading friction adapter.
  - (vii) D- or V-ring alteration.
  - (viii) Conversion of ripcord deployment to hand deployed pilot chute.
  - (ix) Fabricate a canopy deployment bag.
  - (x) Convert throw-out pilot chute from rear of leg position to the bottom of container position.

**IS 2.10.1.6 TYPE RATINGS—PARACHUTE RIGGER LICENCE SKILL TEST**

(26)

- (1) The skill test for ratings or added ratings to a parachute rigger licence shall test the applicant's knowledge and performance in at least the following areas of operation applicable to the rating sought, including the applicant's knowledge and performance of the following:
- (1) Additional rating requirements.
  - (2) Packing seat-type parachute.
  - (3) Packing back-type parachute (excluding piggy-back).
  - (4) Packing chest-type parachute.
  - (5) Packing lap-type parachute.

**IS 2.13.1.3 AVIATION MEDICAL EXAMINERS**

(27)

- (1) Basic training in aviation medicine for AMEs shall include at least the following:
- (1) Basic training in aviation medicine.

- (2) Physics of atmosphere and space.
  - (3) Basic aeronautical knowledge.
  - (4) Aviation Physiology.
  - (5) Ophthalmology.
  - (6) Otorhinolaryngology.
  - (7) Cardiology and general medicine.
  - (8) Neurology.
  - (9) Psychiatry in aviation medicine.
  - (10) Psychology.
  - (11) Dentistry.
  - (12) Accidents, Escape and Survival.
  - (13) Legislation, rules and Directives.
  - (14) Air evacuation.
  - (15) Medicine and flying.
- (2) Advanced training in aviation medicine for AMEs shall include the following:
- (1) Pilot working environment.
  - (2) Aerospace physiology.
  - (3) Ophthalmology.
  - (4) Otorhinolaryngology.
  - (5) Cardiology and general medicine.
  - (6) Neurology/Psychiatry.
  - (7) Human factors in aviation.
  - (8) Tropical medicine.
  - (9) Hygiene.
  - (10) Space medicine.

**IS 2.13.1.8 Medical Certificate**

- (1) The following details shall appear on the medical certificate:
  - (1) Name of State.
  - (2) Medical certificate number
  - (3) Name of holder in full;
  - (4) Date of birth of holder.
  - (5) Address of holder.

- (6) Nationality of holder.
- (7) Signature of holder.
- (8) Medical certificate Class 1, 2, or 3.
- (9) Date of Issue.
- (10) Validity.
- (11) Limitations.
- (12) Issuing Authority.
- (13) Signature of Issuing Authority.
- (14) Examiner/CAA staff signature.
- (15) Examiner/CAA staff name (printed).
- (16) Examiner's authorisation number.
- (17) Date of Examination and State of Examination.

**MEDICAL REPORT**

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

- (1) Name of holder in full;
- (2) Date of birth of holder.
- (3) Address of holder.
- (4) Nationality of holder.
- (5) Signature of holder.
- (6) Medical certificate Class 1, 2, or 3.
- (7) Examiner/CAA staff signature.
- (8) Examiner/CAA staff name (printed).

	<h2 style="margin: 0;">APPLICATION FOR MEDICAL CERTIFICATE</h2>	<p><b>INSTRUCTIONS</b></p> <p>Print or type. Do not write in shaded areas. These are for GCAA use only. Submit original only to the GCAA or a GCAA Authorized Person.</p> <p>If additional space is required, use an attachment</p>
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**A. APPLICATION IS HEREBY MADE FOR ISSUANCE OF THE FOLLOWING AVIATION MEDICAL CERTIFICATE:**

1. CLASS 1	2. CLASS 2	3. CLASS 3
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**B. AIRMAN PERSONAL INFORMATION:**

1. NAME (Last ----- First----- Middle)			5. PERMANENT ADDRESS (Street or PO Box Number)			
2. TELEPHONE:			6. CITY                      ISLAND/STATE/PROVINCE                      MAIL CODE                      COUNTRY			
3. FAX NUMBER:						
4. EMAIL ADDRESS:						
7. HEIGHT	8. WEIGHT	9. HAIR	10. EYES	11. SEX	12. DATE OF BIRTH ----- / ----- / ----- <small>DAY      MONTH      YEAR</small>	<b>13. FOR GCAA USE</b>

**C. PEL LICENSE AND MEDICAL INFORMATION:**

1. -PEL LICENSE #	2. TOTAL FLT HRS	3. TOTAL LAST 6 MONTHS	4. AVIATION EMPLOYER
5. DATE LAST MEDICAL / / <small>DAY      MONTH      YEAR</small>	6. HAS YOUR AVIATION MEDICAL CERTIFICATE EVER BEEN DENIED, SUSPENDED OR REVOKED?  (a) <b>YES (PROVIDE EXPLANATION)</b> (b) <b>NO</b> If yes, give date: / / <small>DAY      MONTH      YEAR</small>		<b>8. FOR GCAA USE</b>
7. EXPLANATION FOR DENIAL <input type="checkbox"/> SUSPENSION OR REVOCATION <input type="checkbox"/>			

**D. MEDICAL HISTORY:**

**HAVE YOU EVER IN YOUR LIFE BEEN DIAGNOSED WITH, HAD, OR DO YOU PRESENTLY HAVE ANY OF THE FOLLOWING? Answer "Yes" or "No" for every condition listed below. In the EXPLANATIONS box below, you may note "PREVIOUSLY REPORTED, NO CHANGE" only if the explanation of the condition was reported on a previous application for an airman medical certificate and there has been no change in your condition. (See instructions for completion):**

YES	NO	CONDITION:	YES	NO	CONDITION:
<input type="checkbox"/>	<input type="checkbox"/>	1. Frequent or severe headaches?	<input type="checkbox"/>	<input type="checkbox"/>	12. Neurological disorders, epilepsy, seizures, stroke, paralysis, etc
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

**Part 2 — Personnel Licensing**

**IMPLEMENTING STANDARDS**

2.	Dizziness or fainting spell?	13.	Mental disorders of any sort, depression, anxiety, etc
3.	Unconsciousness for any reason?	14.	Motion sickness requiring medication?
4.	Eye or vision trouble except for glasses?	15.	Medical discharge from any organization?
5.	Hay fever or allergy?	16.	Medical rejection by any organization?
6.	Asthma or lung disease?	17.	Rejection for life or medical insurance?
7.	Heart or vascular trouble or HIV?	18.	Admission to hospital?
8.	High or low blood pressure?	19.	Alcohol dependence or abuse?
9.	Stomach, liver, or intestinal trouble?	20.	Substance dependence, or substance abuse, or use of illegal substances in the last 2 years, or failed a drug test ever?
10.	Kidney stone or blood in the urine?	21.	Other illness disability or surgery? <i>(attach report)</i>
11.	Suicide attempt?	22.	Near vision contact lenses?

23. EXPLANATIONS:	24. FOR GCAA USE
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<b>E. VISITS TO THE HEALTH PROFESSIONAL WITHIN LAST 3 YEARS?</b>			(a) YES <i>(Explain Below)</i>	(b) NO
Date	Name, Address & Type of Health Professional Consulted	Reason		


<b>F. USE OF MEDICATION? (Daily or Regular Use: Non-Prescription or Prescription)</b>			(a) YES <i>(List Below)</i>	(b) NO
		<input type="checkbox"/>	<input type="checkbox"/>	

<b>G. CONVICTION AND/OR ADMINISTRATIVE HISTORY:</b>				
1. History of (1) any conviction(s) involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug; or (2) history of any conviction(s) or administrative action(s) involving an offense(s) which resulted in denial, suspension, cancellation or revocation of driving privileges or which		2. History of non-traffic conviction(s)? (misdemeanors or felonies)		
YES	NO	<input type="checkbox"/>	YES	NO
(a)	(b)	resulted in attendance at an educational or rehabilitation program?	(a)	(b)
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
				3. FOR GCAA USE

<b>H. CERTIFICATION – I hereby represent that the information entered in this application is true and correct.</b>		
A person shall not with intent to deceive: or make any false representation for the purpose of procuring for himself or any other person the grant, issue, renewal or variation of any such certificate...	1. DATE	2. APPLICANT SIGNATURE :



INSTRUCTIONS

	<p><b>APPLICATION FOR</b></p> <p><b>MEDICAL CERTIFICATE</b></p>	<p>Print or type. Do not write in shaded areas. These are for GCAA use only. Submit original only to the GCAA or a GCAA Authorized Person.</p> <p>If additional space is required, use an attachment</p>
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**REPORT OF MEDICAL EXAMINATION**

I. GENERAL EXAMINATION:							
1. Height (inches)		2. Weight (pounds)	3. Statement of Demonstrated Ability				
<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal		<input type="checkbox"/> YES <input type="checkbox"/> NO	DEFECT NOTED?				
CONDITION:		CONDITION:					
4.	<input type="checkbox"/>	<input type="checkbox"/>	Head, face, neck and scalp?	16.	<input type="checkbox"/>	<input type="checkbox"/>	Vascular system (Pulse, amplitude & character, arms, legs, other)
5.	<input type="checkbox"/>	<input type="checkbox"/>	Nose?	17.	<input type="checkbox"/>	<input type="checkbox"/>	Abdomen and viscera (including hernia)
6.	<input type="checkbox"/>	<input type="checkbox"/>	Sinuses?	18.	<input type="checkbox"/>	<input type="checkbox"/>	Anus (not including digital examination)
7.	<input type="checkbox"/>	<input type="checkbox"/>	Mouth and throat?	19.	<input type="checkbox"/>	<input type="checkbox"/>	Skin
8.	<input type="checkbox"/>	<input type="checkbox"/>	Ears (General)	20.	<input type="checkbox"/>	<input type="checkbox"/>	G.U. system (not including pelvic examination)
9.	----- Ear Drums (perforation) -----		21.	----- Upper and lower extremities (strength and range of motion) -----			
10.	----- Eyes (General) -----		22.	----- Spine, other musculoskeletal -----			
11.	Ophthalmoscopic		23.	Identifying body marks, scars, tattoos (size and location)			
12.	Pupils (Equality and Reaction)		24.	Lymphatics			
13.	Ocular motility (associated parallel movement,		25.	Neurologic (tendon reflexes, equilibrium, cranial nerves, coordination, etc.)			
14.	Lungs and Chest (not including breast exam)		26.	Psychiatric (appearance, behavior, mood, communication & memory)			
15.	Heart (precordial activity, rhythm, sounds & murmurs)		27.	General Systemic			

**28. NOTES:** (Describe every abnormality in detail. Enter applicable item number before each comment. Use additional sheets if necessary and attach to this form.)

J. HEARING:			
1. Conversational	2. Record Audiometric	3. Right Ear	4. Left Ear

**Part 2 — Personnel Licensing**

**IMPLEMENTING STANDARDS**

Voice Test (at 5 feet)	Speech Discrimination score below											
(a) Pass		Audiometer	500	1000	2000	3000	4000	500	1000	2000	3000	4000
(b) Fail		Threshold in decibels	(a)	(b)	(c)	(d)	(e)	(a)	(b)	(c)	(d)	(e)

**K. VISION:**

1. Distant Vision	2. Near Vision	3. Intermediate Vision	4. Color Vision
a. Right= 6/ Corrected to 6/	a. Right= 6/ Corrected to 2/	a. Right= 6/ Corrected to 6/	(a) Pass
b. Left= 6/ Corrected to 6/	b. Left= 6/ Corrected to 6/	b. Left= 6/ Corrected to 6/	(b) Fail
c. Both= 6/ Corrected to 6/	c. Both= 6/ Corrected to 6/	c. Both= 6/ Corrected to 6/	

**L. CARDIOVASCULAR:**

1. Blood Pressure (a) Systolic: (b) Diastolic:	2. Pulse (Sitting):	3. ECG (Date):	<input type="checkbox"/>
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**M. URINALYSIS:**

1. <input type="checkbox"/> Normal	2. <input type="checkbox"/> Abnormal	3. Albumin (SPECIFY) →	4. Sugar (SPECIFY) →
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**N. DRUG SCREENING (Commercial and Airline Transport Pilots):**

1. Cocaine a. <input type="checkbox"/> NEGATIVE b. <input type="checkbox"/> ABNORMAL(units) →	2. Cannabinoids a. <input type="checkbox"/> NEGATIVE b. <input type="checkbox"/> ABNORMAL(units) →
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**O. COMMENTS ON HISTORY AND FINDINGS:** AME shall comment on all "YES" answers in the Medical History section and for abnormal findings of the examination. (Attach all consultation reports, ECGs, Xrays, etc. to this report before mailing.)

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.....

1. Significant Medical History? (a) YES (b) NO	2. Abnormal Physical Findings? (a) YES (b) NO
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**P. MEDICAL EXAMINER'S ANALYSIS AND DECLARATION:**

1. <input type="checkbox"/> ISSUANCE RECOMMENDED	2. <input type="checkbox"/> ISSUANCE NOT RECOMMENDED
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**3. DISQUALIFYING DEFECTS:** (List by section letter and item number or enter the word "None")

.....

.....

**4. I hereby certify that I have personally reviewed the medical history and personally examined the applicant named on this medical examination report. This report with any attachments embodies my findings completely and correctly:**

5. Date of Examination / / DAY MONTH YEAR	6. AME SERIAL NUMBER	8. AME PRINTED NAME	10. FOR GCAA USE:
	7. AME TELEPHONE #	9. AME SIGNATURE	

GCAA

**GHANA CIVIL AVIATION AUTHORITY  
MEDICAL ASSESSMENT**

GHANA CIVIL AVIATION AUTHORITY  
 MEDICAL ASSESSMENT  
 CLASS .....

Name (in full).....:.....:.....

Address.....

Place and Date of Birth.....

The above named, who was medically examined on .....

by .....

assessed as follows:

Fit	Category of Licence	Does not meet the required physical standard Annex 1. Para
	A.L.T.P.: C.PL.	
	P.P.L. : S.P.L.	
	P.P.L. with Instrument Rating	
	Flt. Navigator	
	Flt: Engineer	
	A.T.C.O	
	Glider Pilot	
	Free Balloon Pilot	
	Cabin Crew Member	

Remarks: .....

Date:.....

.....

Medical Officer



REPUBLIC OF GHANA  
GHANA CIVIL AVIATION AUTHORITY  
AVIATION MEDICAL CERTIFICATE



This document certifies that:

**NAME**

Has provided evidence that he meets the medical standards prescribed by the Ghana Civil Aviation Directives and may exercise the privileges requiring a:

Class Assessment

This certificate is issued on the basis of a successful medical assessment conducted in accordance with Part 8 of the Ghana Civil Aviation and standards of ICAO Annex 1 for international recognition

Director –General

This certificate with listed limitations was granted on:

GHANA PEL#

PERSONAL ADDRESS

DATE OF EXAMINATION:

DESIGNATED MEDICAL EXAMINER

DATE OF EXPIRATION:

HEIGHT: WEIGHT: HAIR: EYES:

MEDICALLY-RELATED LIMITATIONS THAT MUST BE OBSERVED BY THIS LICENSE HOLDER

MEDICALLY-RELATED WAIVERS ISSUED ON THE BASIS OF DEMONSTRATED ABILITY

AGAC Form 100

Control Number: