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THURSDAY 16TH MAY, 2024

THE OFFICIAL GAZETTE 16TH MAY, 2024
LEGAL SUPPLEMENT — B

GUYANA No. 32 of 2024

GUYANA CIVIL AVIATION AUTHORITY

REQUIREMENTS FOR PERSONNEL LICENSING 2024

Made Under

THE CIVIL AVIATION ACT 2018

(Act No. 21 of 2018)

In exercise of the powers conferred upon the Guyana Civil Aviation Authority by section 142 of the Civil Aviation Act 2018, the Guyana Civil Aviation Authority prescribe the following Requirements which may be cited as the Civil Aviation Requirements for Personnel Licensing 2024.

These Requirements are prescribed in respect of the Civil Aviation (Personnel Licensing) Regulations 2024 and contain –

(a) applicable standards;

(b) rules and recommended practices of international aviation organisations; and

(c) other requirements of the Authority.

These Requirements are numbered 2.1 to IS 2.10.

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2.1 GENERAL

2.1.1 Applicability

These Requirements prescribe:

(a) the requirements for issuing, renewal, ~~and~~ re-issue, validation, and conversion of aviation personnel licences, ratings, authorizations, endorsements, designations and certificates;

(b) the conditions under which those licences, ratings, authorizations, endorsements, designations and certificates are necessary; and

(c) the privileges and limitations granted to the holders of those licences, ratings, authorizations, endorsements, designations and certificates.

2.1.2 Definitions

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

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

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

(3) **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.

(4) **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.

(5) **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.

(6) **Aircraft -- category**. Classification of aircraft according to specific basic characteristics, e.g. aeroplane, helicopter, glider, free balloon.

(7) **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.

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

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

(9) **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 by the type certificate or the air operator certificate.

(10) **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.

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

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

(13) **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.

(14) **Approved maintenance organisation.** An organisation approved by Guyana to perform maintenance of aircraft or parts thereof and operating under supervision approved by Guyana.

(15) **Approved training.** Training conducted under special curricula and supervision approved by Guyana.

(16) **Approved training organisation.** An organisation approved by Guyana in accordance with these Requirements to perform flight crew training and operating under the supervision of Guyana.

(17) **ATS surveillance service.** Term used to indicate a service provided directly by means of an ATS surveillance system.

(18) **ATS surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft. (Note.— A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.)

(19) **Balloon.** A non-power-driven lighter-than-air aircraft. (This definition applies to free balloons).

(20) **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).

(21) **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).

(22) **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.

(23) **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.

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

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

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

(27) **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.

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

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

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

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

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

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

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

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

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

(37) **Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorised pilot on board the aircraft, or from a properly authorized remote pilot using the remote pilot station during a remotely piloted aircraft flight.

(38) **Error.** An action or inaction by an operational person that leads to deviations from organisational or operational person intentions or expectations.

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

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

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

(42) **Flight procedures trainer**. See Flight simulation training device.

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

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;

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;

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

(44) **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.

(45) **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

(46) **Flight time — remotely piloted aircraft systems.**†† The total time from the moment a 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.

(47) **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.

(48) **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.

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

(50) **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.

(51) **High performance aircraft.** With respect to a rating, means an aircraft that, in accordance with its type certificate, requires only one pilot and that has a maximum speed (Vne) of an indicated airspeed of 250 knots or greater or a stall speed (Vso) of an indicated airspeed of 80 knots or greater

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

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

(54) **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.

(55) **Instrument ground time.** Time during which a pilot is practising, on the ground, simulated instrument flight in a synthetic flight trainer approved by the Guyana Civil Aviation Authority.

(56) **Instrument time.** Instrument flight time or instrument ground time.

(57) **Licensing Authority.** The Civil Aviation Authority designated by Guyana as responsible for the licensing of aviation personnel which will be accomplished through the 'Licensing Office'.

NOTE *— The Licensing Authority have the following responsibilities:*

- *assessment of an applicant's qualification to hold a licence or rating;*
- *issue and endorsement of licences and ratings;*
- *designation and authorisation of approved persons;*
- *approval of training courses*
- *approval of the use of synthetic flight trainers and authorisation for their use for gaining the experience or in demonstrating the skill required for the use of a licence or rating; and*
- *validation and conversion of licences issued by other Contracting States.*

(58) **Likely.** In the context of the medical provisions in these Requirements, likely means with a probability of occurring that is unacceptable to the Medical Assessor/Authority.

(59) **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.

(60) **Medical Assessment.** The evidence issued by the Guyana Civil Aviation Authority that the licence holder meets specific requirements of medical fitness. A Medical Assessment may also be referred to as a Medical Certificate

(61) **Medical Assessor.** A physician qualified and experienced in the practice of aviation medicine who evaluates medical reports submitted to the Licensing Authority by medical examiners.

(62) **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.

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

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

(64) **Night.** The hours between the end of evening civil twilight and the beginning if morning civil twilight. (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)

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

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

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

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

(69) **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.

(70) **Pilot-in-command under supervision.** Co-pilot performing, under the supervision of the pilot-in- command, the duties and functions of a pilot-in-command, provided that the method of supervision employed is acceptable to the Guyana Civil Aviation Authority.

(71) **Pilot monitoring (PM).** The pilot whose primary task is to monitor the flight path and its management by the PF. The secondary tasks of the PM are to

perform non–flight path related actions (radio communications, aircraft systems, other operational activities, etc.) and to monitor other crew members.

(72) **Powered-lift.** A heavier-than-air-aircraft capable of vertical take-off, vertical landing, and low speed flight that depend 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.

(73) **Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in a way that:

(i) Constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or

(ii) Causes or worsens an occupational, social, mental or physical problem or disorder.

(74) **Psychoactive substances.** Alcohol, opiods, canabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

(75) **Quality system.** Documented organisational policies and procedures; internal audit of those policies and procedures; management review and recommendation for quality improvement.

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

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

(78) **Remote co-pilot.** A licenced 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.

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

(80) **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.

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

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

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

(84) **Remotely piloted aircraft system (RPAS).** A remotely piloted aircraft, its associated remote pilot station(s), the required C2 Link(s) and any other components as specified in the type design.

(85) **Rendering (a licence) valid.** The action taken by Guyana, 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.

(86) **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.

(87) **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.

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

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

(90) **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 required maintenance release.

(91) **Significant.** In the context of the medical provisions in these Requirements, significant means to a degree or of a nature that is likely to jeopardise flight safety.

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

(93) **Solo flight time — remotely piloted aircraft systems**. Flight time during which a student remote pilot is controlling the remotely piloted aircraft system, acting solo.

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

(95) **Synthetic flight trainer.** (see flight simulation training device).

(96) **Threat.** Events or errors that occur beyond the influence of an operational person, increase operational complexity and which must be managed to maintain the margin of safety.

(97) **Threat management.** The process of detecting and responding to the threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.

(98) **Validation.** The action taken by Guyana 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 Guyana

2.1.3 Abbreviations

(a) The following abbreviations are used in these Requirements:

(1) A - Aeroplane

(2) AIP – Aeronautical Information Publication

(3) CAME – Aviation Medical Examiner

(4) AME - Aircraft Maintenance Engineer also known as Aircraft Maintenence Tecnician

(5) AMO – Approved Maintenance Organisation

(6) AS – Airship

(7) Reserved

(8) ATC – Air Traffic Control

(9) ATCO – Air Traffic Controller

(10) ATO – Approved Training Organisation

(11) ATPL – Airline Transport Pilot Licence

(12) B – Balloon

(13) C2 – Command and control

(14) CAT II/III – Category II/III

(15) CP – Co-pilot

(16) CPL – Commercial Pilot Licence

(17) CRM – Crew Resource Management

(18) FE – Flight Engineer

(19) FI – Flight Instructor

(20) FISO – Flight Information Service Officer

(21) G – Glider

(22) H - Helicopter

(23) IA – Inspection Authorisation

(24) ICAO - International Civil Aviation Organisation

(25) IFR – Instrument Flight Rules

(26) ILS – Instrument Landing System

(27) IMC – Instrument Meteorological Condition

(28) IR – Instrument Rating

(29) IS – Implementing Standard

(30) MCM – Maintenance Control Manual

(31) MPA – Multi-pilot Aeroplane

(32) MPH – Multi-pilot Helicopter

(33) MPL – Multi-crew Pilot Licence

(34) NDT – Non-destructive Testing

(35) NOTAM – Notice to airmen

(36) OJTI – On-the-job Training Instructor

(37) OM – Operations Manual

(38) PIC – Pilot-in-Command

(39) PL – Powered-lift

(40) PPL – Private Pilot Licence

(41) RP – Remote Pilot

(42) RPA – Remotely Piloted Aircraft

(43) RPAS – Remotely Piloted Systems

(44) RPL – Remote Pilot Licence

(45) RPS – Remote Pilot Station

(46) RT – Radiotelephony

(47) RVR – Runway Visual Range

(48) SOP – Standard Operating Procedure

(49) SPA – Single-pilot Aeroplane

(50) SPH – Single-pilot Helicopter

(51) SSP – State Safety Program

(52) STS – Skill Test Standard

(53) VFR – Visual Flight Rules

(54) VMC – Visual Meteorological Conditions

2.2 GENERAL LICENSING REQUIREMENTS

2.2.1 GENERAL

(a) The Director-General may issue, renew or re-issue a licence, rating, authorization, designation, endorsement and/or certificate when the applicant complies with these Requirements

(b) *Privileges.* The holder of a licence, rating, authorisation, designation, endorsement and/or certificate shall not exercise privileges other than those granted by the licence, rating, authorisation, designation, endorsement and/or certificate.

(c) *Medical fitness.* An applicant for a flight crew, remote pilot or air traffic controller licence shall hold an appropriate medical certificate issued in accordance with the provisions of these Requirements.

2.2.2 LICENCES, RATINGS, AUTHORIZATIONS, DESIGNATIONS, AND CERTIFICATES

2.2.2.1 LICENCES

The Director-General may issue the following licences under these Requirements to an applicant who satisfactorily complies with these Requirements for the licence sought:

(a) Flight crew licences:

(1) private pilot - aeroplane, airship, helicopter or powered-lift;

(2) commercial pilot - aeroplane, airship, helicopter or powered-lift;

(3) multi-crew pilot - aeroplane;

(4) airline transport pilot - aeroplane, helicopter or powered-lift;

(5) glider pilot – (private pilot, commercial pilot);

(6) free balloon pilot – (private pilot, commercial pilot);

(7) flight engineer; and

(8) remote pilot – aeroplane, airship, glider, rotorcraft, powered-lift or free balloon.

(b) Other personnel licences:

(1) aircraft maintenance engineer

(2) air traffic controller

(3) flight dispatcher

(4) reserved; and

(5) flight radio-telephone operator

2.2.2.2 RATINGS

(a) The Director-General may issue the following ratings which are placed on a pilot licence when an applicant satisfactorily complies with these Requirements for the rating sought:

(1) Category ratings in the following aircraft:

(i) Aeroplane

(ii) Airship (apply only to airship of a volume of more than 4 600 cubic metres)

(iii)Free Balloon

(iv)Glider

(v) Helicopter

(vi)Powered-lift

(vii) RPAS

(2) Class ratings in the following aircraft:

(i) Single-engine land - aeroplane

(ii) Single-engine sea - aeroplane

(iii)Multi-engine land - aeroplane

(iv)Multi-engine sea- aeroplane

(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) RPAS

(x) Any other rating considered necessary by the Director-General.

(3) Type ratings in the following aircraft:

(i) Aircraft certificated for operation with a minimum crew of at least two pilots;

(ii) Helicopters and powered-lift aircraft certificated for single-pilot operations except where a class rating has been established under (2)(v) above; and

(iii)Any aircraft considered necessary by the Director-General.

Note: A common type rating shall only be established for aircraft with similar characteristics in terms of operating procedures, systems and handling.

(4) Instrument ratings (IR) in the following aircraft:

(i) Instrument – Aeroplane;

(ii) Instrument – Helicopter;

(iii)Instrument – Powered-lift.

Note: The IR is included in the CPL – airship, the ATPL – Aeroplane and Powered-lift

(5) Flight Instructor ratings:

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

(b) The Director-General may issue the following ratings which are placed on a flight engineer's licence when an applicant satisfactorily complies with these Requirements for the rating sought:

(1) Aircraft type

(2) Any other rating considered necessary by the Director-General

(c) The Director-General may issue the following ratings which are placed on an air traffic controller licence when an applicant satisfactorily complies with these Requirements for the rating sought:

(1) Aerodrome control rating

(2) Approach control procedural rating

(3) Approach control surveillance rating

(4) Approach precision radar control rating

(5) Area control procedural rating; and

(6) Area control surveillance rating

(d) The Director-General may issue the following ratings which are placed on an aircraft maintenance engineer licence when an applicant satisfactorily complies with these Requirements for the rating sought:

(1) Airframe

(2) Powerplant

(3) Avionics

2.2.2.3 AUTHORISATIONS

(a) The Director-General may issue the following authorizations when an applicant satisfactorily complies with these Requirements for the authorisation sought:

(1) Student pilot authorisation

(2) Examiner authorisation

(3) Instructor authorisation for training in a flight simulation training device

(4) Ground Instructor authorisation

(5) Student Air Traffic Controller Authorisation

(6) Flight Information Service Officer Authorisation

(b) The Director-General may issue the following authorisations which are placed on a licence when an applicant satisfactorily complies with these Requirements for the authorization sought:

(1) Category II pilot authorisation

(2) Category III pilot authorisation

2.2.2.4 CERTIFICATES

(a) The following medical certificates are issued when an applicant satisfactorily complies with these Requirements for the certificate sought:

(1) Medical certificate Class 1 for IR, CPL, FI, ATPL, and remote pilot licence (if applicable)

(2) Medical certificate Class 2 for PPL and flight engineer licence

(3) Medical certificate Class 3 for Air traffic controller licence, Flight Information Service Officer, and remote pilot licence

(b) The Director-General may issue validation certificates to pilots, flight engineers and other aviation personnel holding a licence from another Contracting State to exercise privileges granted by the certificates on Guyana registered aircraft.

2.2.2.5 ENDORSEMENTS

(a) An authorised instructor may recommend issue of the following endorsements to a pilot who satisfactorily accomplishes the required training in these Requirements:

(1) Complex aeroplane endorsement

(2) High-performance aeroplane endorsement

(3) High-altitude aircraft endorsement

2.2.2.6 DESIGNATION OF REPRESENTATIVES OF THE DIRECTOR-GENERAL

(a) The Director-General may issue the following designations to private persons to act on behalf of the Director-General, as specified in these Requirements:

(1) Designated Pilot Examiner

(2) Designated Flight Engineer Examiner

(3) Designated Flight Dispatcher Examiner

(4) Designated Aircraft Maintenance Engineer Examiner

(5) Other designees as may be determined by the Director-General

2.2.3 VALIDITY OF LICENCES, RATINGS, AUTHORISATIONS, DESIGNATIONS AND CERTIFICATES

(a)

The validity period of the licences, ratings, authorisations, designations, certificates of validation, and medical certificates and the renewal and reissue conditions are indicated in the applicable sections of these Requirements. The validity period may be reflected in the licences, ratings, authorisations, designations and certificates or in a Certificate of Test issued with a licence.

(b) The issue, reissue, renewal and extension of licences, ratings, authorisations, designations, and certificates will be performed by the Director-General.

(1) Renewal of Ratings and CAT II or CAT III pilot authorisations may be performed by the examiner or approved check airmen when delegated by the Director-General.

(2) One month extension of medical certificates may be performed by the CAME when delegated and so authorised by the Director-General.

(3) Extension of licences, ratings, authorisations, designations and certificates will be granted by the Director-General when the situation so warrants, and the Director-General is satisfied that there will be no decrease in safety.

(c) Application for the issue, renewal, and reissue of licences, ratings, authorisations, designations, and certificates by the Director-General shall be done by submitting a properly completed form, which can be obtained from the Director-General. A request made in writing with all pertinent information may be submitted in cases where a form is not available.

(d) FOR RENEWAL

(1) Applications shall be made to the Authority at least 14 days before the expiration date.

(2) The licence, rating, authorisation, designation, or certificate, including any required medical certificate, shall be valid.

(e) RE-ISSUE OF LICENCES AND RATINGS

(1) An airman licence will be considered as expired if all the ratings endorsed or attached to the licence have expired.

(2) Ratings will be re-issued in accordance with the applicable sections of these Requirements after they have expired. The validity of ratings will be reflected in the licence or a Certificate of Test or a Certificate of Validity issued with the licence.

(3) For re-issue of a licence that has been expired for over two years, in addition to complying with the requirements for re-issue of the applicable ratings associated with the licence, the applicant shall have passed a knowledge test in Regulations and/or Air Law as appropriate to the licence.

(4) For re-issue of a licence that has been expired for over five years, in addition to complying with the requirements for re-issue of the applicable ratings associated with the licence, the applicant shall:

(i) undergo refresher ground/knowledge training for the grade of licence from an authorised ground/knowledge or flight instructor or competent person approved by the Director-General;

(ii) have an endorsement in his or her logbook or training record, that has been signed by the authorised instructor or approved person, who certifies that the applicant is prepared for the knowledge test.

(iii) pass the knowledge test as applicable;

(iv) have satisfactorily accomplished the required skill/practical training as required by these Requirements for that licence and received an endorsement in his or her logbook or training record that has been signed by an authorised instructor or person approved by the Director-General, who certifies that the applicant is prepared for the required skill/practical test; and

(v) pass the required skill/practical test within the 12 months period after passing the applicable knowledge test.

(f) PRIVILEGES

(1) The holder of a licence, rating, certificate, authorisation, or designation shall not exercise privileges other than those granted by the licence, certificate, authorisation, or designation.

(2) The privileges granted by a licence, rating, authorisation, designation or certificate may not be exercised unless the holder maintains competency and meets the requirements for recent experience, where applicable.

(g) MAINTENANCE OF COMPETENCY.

(1) Maintenance of competency shall be satisfactorily recorded in the flight crew or remote flight crew member's personal licence or record (e.g., logbook) or in the Operator's records.

(2) The maintenance of competency of flight crew and remote flight crew members engaged in commercial air transport operations may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with the Civil Aviation Requirements for Operations 2024.

(3) A flight crew or remote flight crew member may demonstrate his or her continued competency, partially or completely, in FSTDs approved by the Director-General.

(4) The Director-General should establish maintenance of competency requirements for pilot licence and ratings based on a systematic approach to accident prevention and should include a risk assessment process and analysis of current operations, including accident and incident data appropriate to Guyana.

(h) MEDICAL FITNESS. An applicant for the following licences, authorisations, and designations shall hold a current and appropriate medical certificate issued under these Requirements in order for the licence, authorisation, or designation to be valid:

(1) Student pilot authorisation

(2) Pilot Licence

(3) Remote pilot licence

(4) Flight engineer licence

(5) Reserved

(6) Designated examiners for pilots and flight engineers

(7) Air traffic controller licence

(8) Flight Information Service Officer

2.2.4 VALIDATION AND CONVERSION OF FOREIGN LICENCES AND RATINGS

2.2.4.1 VALIDATION OF FLIGHT CREW LICENCES

(a) General requirements for validation.

(1) A person who holds a current and valid pilot licence and ratings 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 Guyana for a period of up to one year.

(2) The applicant for the validation certificate shall present to the Director-General the foreign licence and evidence of the experience required, by presenting the record (e.g. logbook).

(3) The applicant for the validation certificate shall present to the Director-General evidence that he/she holds a current medical certificate issued under these Requirements or a current medical certificate/ issued by the Contracting State that issued the applicant's licence. The applicant may be allowed to use his/her foreign medical certificate with the validation certificate provided that the medical certification requirements on which the foreign medical certificate was issued meet the applicable sections of these Requirements, relevant to the licence held.

(4) The applicant for the validation certificate shall present to the Director-General evidence of language proficiency in the English language as specified in 2.2.7.

(5) The Director-General will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the state of licence issue prior to issuing the validation.

(6) The Director-General may only validate ratings or authorisations on the foreign licence that are appropriate to Guyana together with the validation of a licence.

(7) The validation certificate will be issued with a validity period of up to one year, provided the foreign licence, ratings, authorisations and the medical certificate, if applicable, remain valid.

(b) Validation Certificate with PPL privileges.

In addition to the requirements in item (a) above, the applicant for a validation certificate with PPL privileges shall:

(1) hold a foreign licence with at least PPL privileges; and

(2) Demonstrate to the satisfaction of the Director-General knowledge of the local Air Law, operational procedures and radio telephony.

(c) Validation certificate with PPL/IR, CPL, CPL/IR, ATPL or FE privileges:

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

(1) The applicant for the validation certificate shall demonstrate to the satisfaction of the Director-General the knowledge relevant to the licence to be validated of:

(i) Air Law;

(ii) Meteorology;

(iii)Operational procedures; and

(iv)Radio Telephony.

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

(d) The applicant for the validation certificate may undergo flight training and the skill test/proficiency check after passing the written examination specified in 2.2.4.1(c)(1) without obtaining a Guyana student pilot authorisation.

(e) An applicant for a validation certificate with CPL, CPL/IR or ATPL privileges who will be in the employment of a Guyana AOC holder may be issued the validation certificate (after satisfying the other requirements) with the condition that they will

not conduct PPL/IR or commercial flight operations until they completed the aircraft proficiency check required in 2.2.4.1(c)(2).

f) Notwithstanding the provision of 2.2.4.2(a)(4), an applicant who has not achieved language proficiency in the English language at level 4 may be granted a validation certificate for operations within the boundaries of Guyana and under any other conditions stipulated by the Director-General for safe operations.
Note: These Requirements are applicable to Remote Pilot Licences

2.2.4.2 CONVERSION OF FLIGHT CREW LICENCES

(a) PPL: 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 Guyana provided the following requirements are met.

(1) The holder shall:

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

(ii) present to the Director-General evidence of language proficiency in the English language as specified in 2.2.7;

(iii) obtain a class 2 medical certificate issued under these Requirements;

(iv) demonstrate to the satisfaction of the Director-General the knowledge of Air Law, meteorology, operational procedures and radio telephony; and

(v) complete an aircraft proficiency check.

(2) The Director-General will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the state of licence issue prior to converting the licence.

(3) The applicant may undergo flight training and the proficiency check after demonstration of knowledge specified in 2.2.4.2(a)(4) without obtaining a Guyana student pilot authorisation.

(b) CPL, CPL/IR, ATPL and Flight Engineer licences, which have been validated in accordance with paragraph 2.2.4.1.

(1) The holder of a current and valid CPL, CPL/IR, ATPL and Flight Engineer licences which have been issued by another Contracting State in accordance with ICAO Annex 1, and an appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Guyana provided the following requirements are met:

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

(ii) The applicant has completed 200 flight hours in Guyana registered aircraft which are operated by an operator established in Guyana, exercising the privileges granted by the validation certificate and/or acquiring route and area experience operating into aerodromes outside a 75 nautical miles radius of the Cheddi Jagan International Airport – Timehri with a qualified pilot.

(iii) The applicant for the conversion shall present to the Director-General the foreign licence and evidence of the 200 flight hours by presenting the record (e.g. logbook).

(iv) The applicant shall hold or obtain a medical certificate issued under these Requirements appropriate to the level of licence to be converted.

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

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

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

(iii) The applicant for the conversion shall present to the Director-General the foreign licence and evidence of the 75 flight hours by presenting the record (e.g., logbook); and

(iv) The applicant shall hold or obtain a medical certificate issued under these Requirements, appropriate to the level of licence to be converted

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

Note: These Requirements are applicable to Remote Pilot Licences

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

(a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2 the Director-General may issue a validation certificate or a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) the licence or certificate is issued by another Contracting State;

(2) the Director-General is convinced that the licence or certificate has been issued on the basis of at least these Requirements; and

(3) there is an agreement between Guyana and the other Contracting State about recognition of licences and, if applicable, keeping the licences and ratings current and valid, or if no agreement has been effected, the other contracting State shall have no differences with standards of Annex 1 and Annex 6 regarding issue of the particular Licence and ratings and keeping these licence and ratings current and valid.

(b) The applicant for the validation certificate or conversion shall present to the Director-General the foreign licence or certificate and evidence of the currency of the licence by presenting the record (e.g. logbook).

(c) The applicant shall hold a medical certificate appropriate to the licence or certificate to be converted or validated provided that the foreign medical certificate meets these Requirements. If the applicant's medical certificate does not meet these Requirements, the applicant shall obtain a medical certificate under these Requirements.

(d) The applicant shall provide evidence of language proficiency in the English language.

(e) If applicable, the applicant shall pass a knowledge test on Air Law, meteorology, operational procedures and radio telephony.

(f) The Director-General will verify the authenticity of the licence, ratings and medical certificate with the State of Licence Issue prior to issuing the validation certificate or the licence

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

2.2.4.4 VALIDATION IN CASE OF LEASED, CHARTERED OR INTERCHANGED AIRCRAFT

(a) The requirements stated in 2.2.4.1 shall not apply where aircraft, registered in Guyana, 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.

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

(c) The Director-General will verify the authenticity of the licence, ratings, including the English language proficiency endorsement of at least Level 4, and medical certificate with the State of Licence Issue prior to issuing the validation

2.2.4.5 TEMPORARY VALIDATION OF FOREIGN PILOT LICENCES

(a) In circumstances where validation of a foreign pilot licence is needed to fulfil specific tasks of finite duration, the Director-General may issue a temporary validation of such a licence for the required tasks.

(b) Notwithstanding the requirements contained in Sections 2.2.4.1, 2.2.4.2, 2.2.4.3 or 2.2.4.4, the Director-General may temporarily validate a licence and ratings that have

been issued by another ICAO Contracting State in accordance with the provisions of ICAO Annex 1, including an instructor rating or examiner authorisation issued by that State provided that the holder of the licence or authorisation shall:

(1) Possess an appropriate licence, medical certificate, English language proficiency endorsement at Level 4 or above, type ratings and qualifications, to include instructor or examiner qualifications, valid in the State of licence issue for the duties proposed.

(2) Be limited to performing flight instruction and testing for initial issue of type ratings, the supervision of initial line flying by pilots of an operator in Guyana, delivery or ferry flights, initial line flying, flight demonstrations or test flights or any other operation approved by the Director-General.

(c) Whenever conducting or supervising line flying, the pilot shall also be required to meet the relevant Requirements for Aircraft Operations.

(d) The Director-General will verify the authenticity of the licence, rating, authorisations and medical certificate with the State of licence issue prior to issuing a temporary validation.

(e) The duration of a temporary validation shall be for six months maximum.

(f) If considered necessary due to the duration and type of operation, the applicant shall demonstrate to the satisfaction of the Director-General and relevant to the licence to be validated, knowledge of Air Law, meteorology, operational procedures and radiotelephony.

2.2.4.6 VALIDATION OF AIRCRAFT MAINTENANCE ENGINEER LICENCES

(a) GENERAL REQUIREMENTS FOR VALIDATION

(1) A person who holds a current and valid aircraft maintenance engineer licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the validation of such licence for use on aircraft registered in Guyana provided the following requirements are met:

(i) The applicant for the validation certificate shall present to the Director-General the foreign licence and evidence of the experience required by presenting the personal record (e.g., logbook, certified worksheets).

(ii) The applicant for the validation certificate shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(2) The Director-General will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the validation.

(3) The Director-General will only validate ratings or authorisations on the foreign licence that are appropriate to Guyana together with the validation of a licence.

(4) The Director-General may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, or authorisations remain valid.

(b) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be validated, knowledge of:

(1) Pertinent sections of the Regulations and these Requirements;

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

(3) AMOs and procedures.

(c) The applicant for the validation certificate shall complete a skill test or an oral examination for the relevant licence and ratings that he or she wants to have validated, relevant to the privileges of the licence held, if deemed applicable by the Director-General.

(d) The applicant for the validation certificate shall have a minimum of 4 years of AME experience.

2.2.4.7 CONVERSION OF AIRCRAFT MAINTENANCE ENGINEER LICENCES

(a) GENERAL REQUIREMENTS FOR CONVERSION. A person who holds a current and valid AME licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the conversion of such licence for use on aircraft registered in Guyana, provided the following requirements are met:

(1) The applicant for the conversion shall present to the Director-General the foreign licence and evidence of the experience required by presenting the personal record (e.g., logbook, certified worksheets)

(2) The applicant for the conversion shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(3) The applicant for the conversion shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be converted, knowledge of:

(i) Pertinent sections of the Regulations and Requirements;

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

(iii) AMOs and procedures.

(4) The applicant for the conversion shall complete a skill test for the relevant licence and ratings that he or she wants to have converted, relevant to the privileges of the licence held; and

(5) The applicant for the conversion shall have a minimum of 4 years of experience in aircraft maintenance with at least two years as a licenced AME.

(b) The Director-General will verify the authenticity of the licence, ratings, and authorisations with the state of licence issue prior to issuing the converted licence.

(c) The Director-General will only convert ratings or authorisations on the foreign licence that are appropriate to Guyana together with the conversion of a licence.

(d) Conversion of AME licences that have been validated in accordance with 2.2.4.6 of these Requirements:

(1) The holder of a current and valid AME licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with 2.2.4.6 of these Requirements and can show evidence of 12 months of performing maintenance on aircraft registered in Guyana may convert his or her AME licence with no further formality.

2.2.4.8 VALIDATION OF AME LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.6 and 2.2.4.7 of these Requirements, the Director-General may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AME, provided:

(1) The licence is issued by another Contracting State.

(2) The Director-General has determined that the licence has been issued on the basis of at least these Requirements; and

(3) There is an agreement between the Director-General and the other Contracting State about recognition of licences and, if applicable, about keeping the licences and ratings current and valid.

(b) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be validated, knowledge of:

(1) Pertinent sections of the Regulations and Requirements;

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

(3) AMOs and procedures.

(c) The applicant for the validation certificate shall present to the Director-General the foreign licence and evidence of the currency of the licence by presenting the personal record (e.g., logbook, certified worksheets).

(d) The applicant for the validation shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(e) The Director-General will verify the authenticity of the licence and ratings with the State of Licence Issue prior to issuing the validation.

(f) The Director-General may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, and authorisations remain valid.

2.2.4.9 CONVERSION OF AME LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.6 and 2.2.4.7 of these Requirements, the Director-General may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) The licence is issued by another Contracting State;

(2) The Director-General is convinced that the licence has been issued on the basis of at least these Requirements; and

(3) There is an agreement between the Director-General and the other Contracting State about recognition of licences

(b) The applicant for the conversion shall present to the Director-General the: foreign licence and evidence of the currency of the licence by presenting the personnel record (e.g., logbook, certified worksheets).

(c) The applicant for the validation shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(d) The applicant for the conversion shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be converted, knowledge of:

(i) Pertinent sections of the Regulations and Requirements;

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

(iii) AMOs and procedures;

(e) The Director-General will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the conversion.

2.2.4.10 VALIDATION OF FLIGHT DISPATCHER LICENCES

(a) GENERAL REQUIREMENTS FOR VALIDATION

(1) A person who holds a current and valid Flight Dispatcher Licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the validation of such licence for use in Guyana provided the following requirements are met:

(i) The applicant for the validation certificate shall present to the Director-General the foreign licence.

(ii) The applicant for the validation certificate shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(2) The Director-General will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the validation.

(3) The Director-General will only validate ratings or authorisations on the foreign licence that are appropriate to Guyana together with the validation of a licence.

(4) The Director-General may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, or authorisations remain valid.

(b) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be validated, knowledge of:

(1) Pertinent sections of the Regulations and these Requirements;

(c) The applicant for the validation certificate shall complete a skill test or an oral examination for the relevant licence and ratings that he or she wants to have validated, relevant to the privileges of the licence held, if deemed applicable by the Director-General.

(d) The applicant for the validation certificate shall have a minimum of 2 years of experience as a licenced Flight Dispatcher.

2.2.4.11 CONVERSION OF FLGHT DISPATCHER LICENCES

(a) GENERAL REQUIREMENTS FOR CONVERSION.

A person who holds a current and valid Flight Dispatcher Licence issued by another Contracting State in accordance with ICAO Annex 1 may apply for the conversion of such licence for use in Guyana, provided the following requirements are met:

(1) The applicant for the conversion shall present to the Director-General the foreign licence.

(2) The applicant for the conversion shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(3) The applicant for the conversion shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be converted, knowledge of:

(i) Pertinent sections of the Regulations and Requirements;

(4) The applicant for the conversion shall complete a skill test for the relevant licence and ratings that he or she wants to have converted, relevant to the privileges of the licence held; and

(5) The applicant for the conversion shall have a minimum of 2 years of experience as a licenced Flight Dispatcher.

(b) The Director-General will verify the authenticity of the licence, ratings, and authorisations with the state of licence issue prior to issuing the converted licence.

(c) The Director-General will only convert ratings or authorisations on the foreign licence that are appropriate to Guyana together with the conversion of a licence.

(d) Conversion of Flight Dispatcher licences that have been validated in accordance with 2.2.4.10 of these Requirements:

(1) The holder of a current and valid Flight Dispatcher licence issued by another Contracting State in accordance with ICAO Annex 1 who has a validation in accordance with 2.2.4.10 of these Requirements and can show evidence of 12 months of performing the duties of a Flight Dispatcher in Guyana may convert his or her Flight Dispatcher licence with no further formality.

2.2.4.12 VALIDATION OF FLIGHT DISPATCHER LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.10 and 2.2.4.11 of these Requirements, the Director-General may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign Flight Dispatcher Licence, provided:

(1) The licence is issued by another Contracting State.

(2) The Director-General has determined that the licence has been issued on the basis of at least these Requirements; ands

(3) There is an agreement between the Director-General and the other Contracting State about recognition of licences and, if applicable, about keeping the licences and ratings current and valid.

(b) The applicant for the validation certificate shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be validated, knowledge of:

(1) Pertinent sections of the Regulations and Requirements;

(c) The applicant for the validation certificate shall present to the Director-General the foreign licence and evidence of the currency of the licence.

(d) The applicant for the validation shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(e) The Director-General will verify the authenticity of the licence and ratings with the State of Licence Issue prior to issuing the validation.

(f) The Director-General may issue a validation certificate which shall be valid for 1 year, provided the foreign licence, ratings, and authorisations remain valid.

2.2.4.13 CONVERSION OF FLIGHT DISPATCHER LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

(a) Notwithstanding 2.2.4.10 and 2.2.4.11 of these Requirements, the Director-General may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:

(1) The licence is issued by another Contracting State;

(2) The Director-General is convinced that the licence has been issued on the basis of at least these Requirements; and

(3) There is an agreement between the Director-General and the other Contracting State about recognition of licences

(b) The applicant for the conversion shall present to the Director-General the: foreign licence and evidence of the currency of the licence.

(c) The applicant for the validation shall demonstrate to the satisfaction of the Director-General, the ability to speak, read, write and understand the English language.

(d) The applicant for the conversion shall demonstrate, to the satisfaction of the Director-General and relevant to the licence to be converted, knowledge of:

(i) Pertinent sections of the Regulations and Requirements;

(e) The Director-General will verify the authenticity of the licence, ratings, and authorisations with the State of Licence Issue prior to issuing the conversion.

2.2.4.14 Validation of Air Traffic Controller licences

(a) General requirements for validation.

(1) A person who holds a current and valid Air Traffic Controller licence and ratings issued by another Contracting State in accordance with ICAO Annex 1, may apply for a validation of such licence in Guyana for a period of up to one year.

(2) The applicant for the validation certificate shall present to the Director-General the foreign licence and evidence of recent experience in providing that ATC service.

(3) The applicant for the validation certificate shall present to the Director-General evidence that he/she holds a current medical certificate issued under the Requirements for Personnel Licensing 2024 or a current medical certificate/ issued by the Contracting State that issued the applicant's licence. The applicant may be allowed to use his/her foreign medical certificate with the validation certificate provided that the medical certification requirements on which the foreign medical certificate was issued meet the applicable sections of these Requirements, relevant to the licence held.

(4) The applicant for the validation certificate shall present to the Director-General evidence of language proficiency in the English language as specified in 2.2.7.

(5) The Director-General will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the state of licence issue prior to issuing the validation.

(6) The Director-General may only validate ratings or authorisations on the foreign licence that are appropriate to Guyana together with the validation of a licence.

(7) The validation certificate will be issued with a validity period of up to one year, provided the foreign licence, ratings, authorisations and the medical certificate, if applicable, remain valid.

(b) Validation Certificate with ATC Licence privileges.

In addition to the requirements in item (a) above, the applicant for a validation certificate with ATC Licence privileges shall:

(1) Demonstrate to the satisfaction of the Director-General knowledge of the local rules and regulations relevant to the air traffic controller, operational procedures and radio telephony.

(2) Satisfactorily complete all required classroom and OJT training and facility check for the facility in which the applicant seeks to exercise ATC privileges.

2.2.4.15 AUTOMATIC VALIDATION OF LICENCES ISSUED BY CONTRACTING STATES WITH A FORMAL AGREEMENT UNDER COMMON LICENSING REGULATIONS

(a) Notwithstanding the requirements contained in 2.2.4.8, the Director-General may automatically validate licences issued by other Contracting States, provided that Guyana and the other Contracting States shall have:

(1) Adopted common licensing regulations that are compliant with ICAO Annex 1;

(2) Entered into a formal agreement recognising the automatic validation process;

(3) Established a surveillance system to ensure the continuing implementation of the common licensing regulations; and

(4) Registered the agreement with ICAO pursuant to Article 83 of the Convention on International Civil Aviation.

(b) The Director-General, when issuing a licence, rating, or certificate under the requirements of paragraph 2.2.4.14(a) of this subsection, will:

(1) Endorse the licence, rating, or certificate to indicate that it is rendered valid through registered agreement with ICAO in accordance with paragraph 2.2.4.14(a)(4) of this subsection; and

(2) Issue a numbered attachment to the licence, rating, or certificate with a list of all the States that are party to the agreement and other pertinent information.

2.2.5 RESERVED

2.2.6 TRAINING AND TESTING REQUIREMENTS

2.2.6.1 TRAINING CONDUCTED IN AN ATO

(a) Approved training for flight crew and air traffic controllers shall be conducted within an ATO.

(b) Approved training shall provide a level of competency at least equal to that provided by the minimum experience requirements for personnel not receiving such approved training.

(c) The Director-General may approve a training programme for a licence, rating, authorisation, or endorsement that allows an alternative means of compliance with the experience requirements prescribed in these Requirements when training is conducted within an ATO under special curricula approved by the Director-General under these Requirements.

(d) Prior to authorising an alternative means of compliance that permits an ATO to conduct training that does not meet the normal prescribed experience requirements, the Director-General will ensure that the approved training programme provides a level of competency at least equal to that provided by the minimum experience requirements for personnel not receiving such approved special curricula.

(e) These Requirements prescribe the requirements for certifying and administering Approved Training Organisations for conducting approved training.

(f) All competency-based approved training for aviation personnel including remote flight crew, aircraft and RPAS maintenance personnel, and flight dispatchers shall be conducted within an ATO.

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

(a) Except as specified in paragraph (b) of this subsection, no airman may receive credit for use of any flight simulation training device for satisfying any training, testing, or

checking requirement of these Requirements unless that flight simulation training device is approved by the Director-General for:

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

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

(3) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.

(b) The FSTD shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, and heading reference) as those of the aircraft used by the operator.

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

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

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

(f) The Director-General may approve a device other than a flight simulation training device for specific purposes.

(g) The use of an FSTD for performing training, testing, and checking for which a flight crew member is to receive credit shall be approved by the Director-General, which will ensure that the FSTD is appropriate to the task.

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

(a) Knowledge and Skill tests and checks prescribed by or under these Requirements are given at times and places, and by persons authorised and designated by the Director-General.

(b) The knowledge test will be performed in written or computer format. The knowledge test for an instructor rating or an additional instructor rating within the same aircraft category, may be performed in written or computer format, or may be performed orally.

(c) In addition to the written knowledge test, candidates may be questioned orally during the skill test and checks, as appropriate.

2.2.6.4 KNOWLEDGE AND SKILL TESTS AND CHECKS: PREREQUISITES AND PASSING GRADES, AND RETESTING AFTER FAILURE

(a) An applicant for a knowledge test or a skill test shall have received any required endorsement as specified in these Requirements for the applicable licence, rating or authorisation to show that the applicant has met the training and/or experience requirements to take the knowledge or skill test.

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

(b) An applicant for a knowledge or skill test must be authorised in writing or otherwise by the Director-General to take or retake the test.

(c) An applicant for a knowledge or skill test shall show proper identification in the form of a Government issued identification document at the time of application that contains the applicant's:

(1) photograph;

(2) signature;

(3) date of birth; and

(4) actual residential address, if different from applicant's mailing address.

(d) The Director-General will specify the minimum passing grades.

(e) RETESTING AFTER FAILURE OF A TEST.

(1) An applicant for a knowledge or skill test who fails that test may reapply for the test only after the applicant has received:

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

(ii) an endorsement from the authorised instructor who gave the applicant the additional training.

(2) An applicant for a flight instructor rating in the aeroplane category, or for a flight instructor rating in the glider category 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 (e)(1) of this subsection before being retested;

(ii) bring an aircraft that is of the appropriate aircraft category for the rating sought and is certified for spins; and

(iii)demonstrate satisfactorily instructional proficiency on stall awareness, spin entry, spins and spin recovery to an examiner during the retest.

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

(1) Be airworthy and certificated;

(2) Be capable of performing all areas of operation appropriate to the rating sought and shall have no operating limitations that prohibit its use in any of the areas of operation required for the skill test;

(3) Have no operating limitations that prohibit the tasks required for the skill test;

(4) Be of national, foreign, or military registry of the same category, class, and type, if applicable, for the licence and/or rating for which the applicant is applying, with an appropriate letter of authorisation for aircraft use in a skill test if the applicant is not the owner of the foreign-registered or military aircraft;

(5) Have:

(i) Fully functioning dual controls;

(ii) At least two pilot stations with adequate visibility for each person to operate the aircraft safety; and

(iii) Flight deck and outside visibility adequate to evaluate the performance of the applicant when an additional jump seat is provided for the examiner.

(g) If the applicant is required to take a segmented skill test using an FSTD and an aircraft, the FSTD shall be approved by the Director-General.

Implementing Standard: See IS 2.2.6. for requirements for testing

2.2.6.5 RELIANCE ON TRAINING AND TESTING IN ANOTHER CONTRACTING STATE

(a) The Authority may rely on the training and/or testing system administered by another Contracting State as the basis for its own approved training curriculum, including the administration of written and/or practical test requirements for airman licences provided that Guyana has an agreement with the other Contracting State whose training and/or testing system is used.

(b) Notwithstanding paragraph 2.2.6.5(a) the Director-General may accept a training course for grant of a licence, rating or endorsement done at an Approved Training Organisation in another ICAO member State if the Director-General is satisfied that the training curriculum/training programme of the ATO is acceptable and adequately covers all required areas and the trainers and examiners are suitably qualified and experienced.

(c) The Director-General will accept any training course conducted through an ICAO Trainair Plus Programme in any ICAO member State.

(d) The applicant shall apply for and receive written approval from the Director-General prior to receiving training and/or testing in a system administered by another Contracting State, and the Director-General may attach any condition that it considers necessary.

2.2.6.6 INSTRUCTOR REQUIREMENTS – GENERAL

(a) An applicant for an instructor licence and ratings or authorisations shall, in addition to specific requirements contained in these Requirements, have received and logged training from an authorised instructor on the fundamentals of instructing and shall have passed a knowledge test on the following areas of instructing:

(1) Techniques of applied instruction;

(2) Assessment of student performance in those subjects in which ground instruction is given;

(3) The learning process;

(4) Elements of effective teaching;

(5) Student evaluation and testing, training philosophies;

(6) Training programme development;

(7) Lesson planning;

(8) Classroom instructional techniques;

(9) Use of training aids, including FSTDs as appropriate;

(10 Analysis and correction of student errors;

(11) Human performance relevant to flight instruction;

(12) Hazards involved in simulating system failures and malfunctions in the aircraft; and

(13) Principles of threat and error management.

(b) The following applicants may be exempted from some or all of the required areas of instructing stated in paragraph 2.2.6.6(a) of this subsection:

(1) The holder of an instructor licence or authorisation issued under these Requirements who has already passed the knowledge test in the areas of instructing;

(2) The holder of a current teacher's certificate issued by a national or local authority that

authorises the person to teach at a secondary educational level or higher; or

(3) A person who provides evidence of an equivalent level of experience acceptable to the Director-General

2.2.6.7 DESIGNATED EXAMINERS

(a) The Director-General 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 airman and aircraft licences, ratings, and certificates.

(b) The specific requirements for each type of designated examiner are contained in the appropriate licensing section of these Requirements related to the licensing requirements of the persons to be examined.

(c) The Director-General will issue each designated examiner a certificate of designated authority specifying the kinds of designation for which the individual is qualified and the duration of the designation.

(d) Designated examiners will be periodically monitored by an Inspector or person authorised by the Director-General to ensure consistency and reliability of testing by examiners.

2.2.7 LANGUAGE PROFICIENCY

(a) Pilots, remote pilots, flight engineers, flight navigators, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand radiotelephony communications in the English language.

(b) The airmen mentioned in paragraph 2.2.7 (a) of this subsection shall demonstrate the ability to speak and understand radiotelephony communications in the English language to at least the Operational Level (Level 4) with the aim to speak at the Expert Level (Level 6) as specified in the language proficiency requirements in IS: 2.2.7..

(c) The language proficiency of airmen mentioned in paragraph 2.2.7(a) of this subsection shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level as follows:

(1) those demonstrating language proficiency at the Operational Level (Level 4) shall be evaluated at intervals not greater than 3 years;

(2) those demonstrating language proficiency at the Extended Level (Level 5) shall be evaluated at intervals not greater than 6 years; and

(3) those demonstrating language proficiency at the Expert Level (Level 6) shall be exempted from further language evaluation.

(d) Implementing Standard IS 2.2.7 contains detailed requirements for language proficiency.

(e) Formal evaluation is not required for applicants who demonstrate expert language proficiency, e.g. native and very proficient non-native speakers of the English language with a dialect or accent intelligible to the international aeronautical community.

2.2.8 DOCUMENTATION OF TRAINING AND AERONAUTICAL EXPERIENCE

(a) Each person shall document and record the following time in a manner acceptable to the Director-General as outlined in IS:2.2.8:

(1) The training and/or experience used to meet the requirements for a licence, rating, endorsement and/or authorization of these Requirements; and

(2) The experience required to show maintenance of recency of aeronautical experience according to these Requirements.

2.2.9 SPECIFICATIONS FOR PERSONNEL LICENCES AND CERTIFICATES

2.2.9.1 GENERAL

(a) The licences and certificates shall :

(1) be issued on first quality paper or plastic cards; or

(2) be issued as electronic personnel licences on self-contained mobile electronic visual display devices.

(b) The items required on the licence are indicated in IS 2.2.9. and the item headings shall be uniformly numbered in roman numerals so that on any licence the number will, under any arrangement, refer to the same item heading.

(c) The licences and certificates shall be issued in the English language.

(d) A certificate of validity or certificate of test may be issued with a licence so that privileges and validity of ratings can be easily determined.

2.2.9.2 SPECIFICATIONS FOR ELECTRONIC PERSONNEL LICENCES

(a) Electronic personnel Licences shall be issued in accordance with the specifications of this section.

(b) The licence information shall replicate the information contained in the Licensing Authority's electronic records and contain a common form in accordance with IS 2.2.9.2.

(c) The licence shall have the digital signature of the authorising officer issuing the licence and the most recent date and time of issue.

(d) Digital signatures on licences shall conform to recognized international standards and have an appropriate level of security.

(e) MEDIUM

(1) The licence details shall be displayed on self-contained mobile electronic visual display devices.

(2) The image of the licence displayed shall contain suitable active security features to differentiate it from a static image.

(f) LANGUAGE. The licence shall include the acronym "ICAO" as a hyperlink to an electronic display of the licence in the English language in accordance with the common form in IS 2.2.9.2.

(g) ARRANGEMENT OF ITEMS. The licence shall contain a view that replicates the wording and arrangement, in the English language, of the common form shown in IS 2.2.9.2.

(h) ONLINE AND OFFLINE VERIFICATION

(1) The authenticity and validity of the licence shall be electronically verifiable online when an internet connection is available

(2) The authenticity and validity of the licence shall be electronically verifiable offline when there is no internet connectivity available through a means that imposes no undue burden on the State(s) verifying the authenticity or validity of the licence

(i) MEDICAL ASSESSMENTS. The licence shall include, when applicable, the current medical assessment with class, expiry date, and any medical limitations deemed relevant by the Licensing Authority.

(j) ADDITIONAL SUPPLIMENTARY INFORMATION. When supplementary information is added to the licence, it shall also be inserted in the additional supplementary information section of the common form in IS 2.2.9,2.

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

2.2.10.1 SUSPENSION OF A LICENCE, RATING AUTHORIZATION OR VALIDATION CERTIFICATE

If, in accordance with the Guyana Civil Aviation Act and the applicable Regulations and Requirements the Director-General determines that the interests of safety require that a licence, rating, authorization or certificate must be suspended, the Director-General may act as follows:

(a) If the Director-General discovers facts indicating either a lack of competency or lack of qualification, the Director-General may, require an applicant for or the holder of any licence, rating, authorization, or validation certificate to retake all or part of the knowledge or practical tests required for any licence, rating, authorization, or validation certificate at issue, renewal or re-issue. The Director-General may suspend the validity of any such licence, rating, authorization and/or validation certificate pending the results of such retesting.

(b) A person whose licence, rating, authorization, or certificate has been amended, modified, suspended, or revoked shall be provided with a written notice and an opportunity to be heard in accordance with these Requirements.

(c) After notifying the person involved, in writing, stating the reasons for such action, the Director-General may also suspend the validity of any licence, rating, authorization and/or validation certificate in the following cases:

(1) during the investigation of an aircraft accident or incident;

(2) in cases of proven misconduct, recklessness or excessive carelessness;

(3) if the holder has acted in contradiction to his or her privileges;

(4) if sufficient evidence exists to demonstrate that a flight or practical examiner for pilot licences or remote pilot licences, or a practical examiner for air traffic controller or aircraft maintenance engineer licence (or a practical examiner for any other licence issued by the Director-General) has not performed his or her duties in accordance with the prescribed procedures, and/or

(5) pending the investigation of a suspected violation of the Act or any regulations requirements made under the Act.

(d) Once the suspension is effective, the person involved shall immediately cease exercising the privileges of the affected licence, certificate, rating, or authorization. The person involved shall surrender to the Director-General all licences or validation certificates in his or her possession that are subject to the suspension within 8 days of receiving the notification of the order. If the person fails to surrender the documents under suspension, the Director-General may revoke all such certificate(s) held by that person.

(e) When a suspension is limited to one or more ratings mentioned on the licence or validation certificate, the Director-General will provide the person involved with a new licence or validation certificate omitting all ratings which are subject to the suspension.

(f) The Director-General may cancel a suspension in the following cases:

(1) if person under suspension has taken and passed the knowledge or practical tests required for any licence, rating, or authorization at issue indicated in item (a) above;

(2) if the person involved has gained the required additional experience; or

(3) by revocation of the licence, rating, authorization and/or validation certificate.

(g) Once the suspension has been cancelled, other than by revocation, the Director-General will issue the person involved a new licence or validation certificate or cancel the applicable ratings on the existing licence or certificate.

2.2.10.2 SUSPENSION OF A MEDICAL CERTIFICATE

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

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

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

(d) The person holding the suspended medical certificate shall surrender the medical certificate in his or her possession to the Director-General within 8 days after the date of receiving the notification.

(e) In cases in which the medical fitness of the person involved allows it, the Director-General may provide the person with a suspended medical certificate of a particular class with a new medical certificate of a lower class.

(f) A suspension may be lifted if the medical examination intended in 2.2.10.2(a) has been passed satisfactorily.

(g) If a suspension is lifted, the person involved shall receive a new medical certificate unless the medical certificate was revoked.

2.2.10.3 REVOCATION OF LICENCES, RATINGS AUTHORIZATIONS OR CERTIFICATES

(a) A licence, rating, authorization or certificate shall be revoked if the holder has lost the skills for exercising the privileges mentioned in the document or fails to meet the appropriate medical standards as shown by the results of a medical examination or a test.

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

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

(d) A person who has had a licence or certificate revoked shall be obliged to hand over to the Director-General all the licences or certificates in his or her possession applicable to the revocation within 8 days after the date of receiving notification from the Director-General.

(e) The person who has been denied the privilege to manipulate the controls of an aircraft by judgement of a court, shall be equally obliged to hand over to the Director-General all licences and certificates in his or her possession within 8 days after he or she has taken cognisance of the judgement or after it can be reasonably assumed that he or she has taken cognisance thereof.

2.3 PILOT LICENCES, CATEGORIES, RATINGS, AUTHORIZATIONS, ENDORSEMENTS, INSTRUCTORS AND DESIGNATED EXAMINERS

2.3.1 GENERAL

2.3.1.1 APPLICABILITY

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

2.3.1.2 GENERAL RULE CONCERNING LICENCES, RATINGS, AUTHORISATIONS AND DESIGNATIONS

(a) 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, authorisation or designation.

(b) A person shall not act either as pilot-in-command or as co-pilot, as remote pilot-in-command or remote co-pilot of an aircraft in any of the categories unless that person is the holder of a pilot licence issued in accordance with these Requirements.

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

2.3.1.3 AUTHORITY TO ACT AS A FLIGHT CREW MEMBER OR A REMOTE FLIGHT CREW MEMBER

(a) A person shall not act as a flight crew member of an aircraft, or as a remote flight crew member of an RPAS registered in Guyana unless a valid licence or a validation certificate is held showing compliance with these Requirements and appropriate to the duties to be performed by that person.

(b) No person may act as the PIC or co-pilot of an aircraft unless that person holds the appropriate category, class and type rating for the aircraft to be flown.

(c) During a skill test, the applicant acts as PIC but the examiner or check airman will intervene in safety situations.

(d) Remote pilots shall carry their appropriate licence while engaged in international air operations.

2.3.1.4 CREDITING OF FLIGHT TIME

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

(b) The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by the Director-General 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. The flight time will be credited in full if the aircraft is equipped to be operated by a co-pilot, and it is operated in a multi-crew operation.

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

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

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

(a) No person who holds a pilot licence issued under these Requirements shall serve as a PIC in single-pilot operations on a civil aircraft registered in Guyana engaged in international commercial air transport operations if the person has reached his or her 60th birthday.

(b) No person who holds a pilot licence issued under these Requirements shall serve as a pilot of a civil aircraft registered in Guyana engaged in international commercial air transport operations requiring more than one pilot if the person has reached his or her 65th birthday

2.3.1.6 RECENT EXPERIENCE REQUIREMENTS FOR NON-COMMERCIAL AIR TRANSPORT OPERATIONS

(a) In order to maintain recency and proficiency, all pilots shall meet the applicable requirements in paragraphs 2.3.1.6(b) through (g) of this subsection.

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

(1) A review of the current general operating and flight rules in the applicable Requirements;

(2) A review of those manoeuvres and procedures that, at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot licence;

(3) A proficiency check in the appropriate aircraft for the licence, ratings, or authorisations held unless, within the past 24 months, the pilot has satisfactorily completed one of the following:

(i) A pilot proficiency check or practical test, conducted by an authorised CAA examiner, for a pilot certificate, rating, or operating privilege; or

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

(4) A logbook endorsement from an authorised person who gave the review, certifying that the person has satisfactorily completed the review required in paragraphs 2.3.1.6(b)(3)(i) and (ii) and has completed the applicable proficiency check.

(c) AIRCRAFT TYPE CERTIFICATED FOR MORE THAN ONE PILOT.

(1) No person may act as PIC of an aircraft type certificated for more than one pilot or a turbojet aircraft unless, since the beginning of the past 12 calendar months, he or she has passed a proficiency check in an aircraft, or in an FSTD approved for the purpose, with an authorised representative of the Director-General.

(2) No person may act as CP of an aircraft type certified for more than one pilot unless, since the beginning of the past 12 calendar months, he or she has logged three take-offs and landings as the sole manipulator of the controls in the aircraft of the same type, or in an FSTD approved for the purpose, with each take-off and landing to full stop, and has satisfactorily completed ground training appropriate to the aircraft type.

(d) AIRCRAFT TYPE CERTIFICATED FOR SINGLE PILOT AND REQUIRING A TYPE RATING ON THE PILOT LICENCE.

THE PILOT LICENCE.

(1) No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the past 12 calendar months, he or she has passed a proficiency check with an authorised representative of the Director-General in the category, class, and type of aircraft to be operated, or in an FSTD approved for the purpose.

(e) RECENCY FOR CARRIAGE OF PASSENGERS

(1) No person may act as PIC or CP of an aircraft carrying passengers unless, within the preceding 90 days, that pilot has:

(i) Made three take-offs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type or in an FSTD approved for the purpose

(ii) For a tailwheel aeroplane, made the three take-offs and landings in a tailwheel aeroplane, with each take-off and landing to a full stop.

(iii) For night operations, made the three take-offs and landings required by paragraph 2.3.1.6(e)(1)(i) of this subsection at night, with each take-off and landing to a full stop.

(f) IFR OPERATIONS. A pilot shall not operate as PIC of an aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless, within the preceding 6 months, that pilot has:

(1) Had an instrument proficiency check on the manoeuvres in the IR Skill Test and Proficiency Check contained in the applicable IR STSs; or

(2) Has logged, in actual or simulated conditions, 6 hours of instrument flight time including at least 3 hours in flight in the category of aircraft, to include:

(i) Six instrument approaches;

(ii) Holding procedures and tasks; and

(iii) Intercepting and tracking courses through the use of navigational electronic systems.

(g) NIGHT VISION GOGGLE OPERATIONS. No person may act as PIC in a night vision goggle operation unless that pilot has:

(1) Performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle operation within the preceding 60 days to carry passengers on board or, within the preceding 120 days, to act as PIC without passengers on board:

(i) Three take-offs and landings, with each take-off and landing including a climb-out, a cruise, a descent, and an approach phase of flight, if the pilot intends to use night vision goggles during the take-off and landing phase of flight;

(ii) Three hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;

(iii) Three area departure and area arrival tasks;

(iv) Three tasks of transitioning from aided night flight to unaided night flight and back to aided night flight;

(v) Three night vision goggle operations or, when operating helicopters or powered-lifts, six night vision goggle operations; or

(vi) Has successfully completed a proficiency check with an authorised representative of the Director-General

2.3.2 CATEGORY, CLASS AND TYPE RATINGS AND CATEGORY II/III AUTHORIZATIONS, AND ENDORSEMENTS

2.3.2.1 GENERAL

(a) The holder of a pilot licence shall not be permitted to act as pilot-in-command or as co-pilot of an aircraft unless the holder has received the applicable ratings, authorizations, and/or endorsements as follows:

(1) the appropriate aircraft category rating specified in these Requirements;

(2) the appropriate class when required in accordance with these Requirements;

(3) a type rating when required in accordance with these Requirements;

(4) an authorization when required in accordance with these Requirements; or

(5) an endorsement when required in accordance with these Requirements.

(b) The applicant shall meet the appropriate requirements for the aircraft rating, authorization or endorsement sought stipulated in these Requirements.

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

(d) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the licence holder by the Director-General in place of issuing the class or type rating in accordance with paragraph 2.3.2.1(a) of this subsection. This authorization shall be limited in validity to the time needed to complete the specific flight.

(e) When a type rating is issued limiting the privileges to act as co-pilot, or limiting the privileges to act as pilot only during the cruise phase of a flight, such limitation shall be endorsed on the rating.

2.3.2.2 CATEGORY RATING

(a) The category of aircraft shall be endorsed on the licence as a rating when the category is not included in the title of the licence. A type rating for an aircraft of the powered-lift category may be endorsed on an aeroplane or helicopter pilot licence with an indication that it is part of the powered-lift category.

(b) INITIAL CATEGORY RATING.

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

(c) ADDITIONAL CATEGORY RATINGS.

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

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

(i) meet the requirements appropriate to the privileges for which the category rating is sought;

(ii) have an endorsement in his/her log book 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.

(3) The holder of a pilot licence seeking an additional category of aircraft will be issued with an additional pilot licence for that category of aircraft.

(d) PRIVILEGES. Subject to compliance with these Requirements, the privileges of the holder of a category rating are to act as a pilot on the category of aircraft specified in the licence.

(e) The validity, renewal, or reissue of the category rating will coincide with the requirements for the validity, renewal, or reissue of the licence and, if applicable, the class or type rating contained in these Requirements.

2.3.2.3 CLASS RATINGS

(a) The class of aircraft, if applicable, shall be endorsed on the licence as a rating.

(b) INITIAL CLASS RATING.

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

(c) ADDITIONAL CLASS RATINGS.

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

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

(i) meet the requirements appropriate to the privileges for which the class rating is sought;

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

(iii) pass the required knowledge test unless the applicant holds a class rating within the same category of aircraft at the same level of pilot licence at either the private or commercial levels; and

(iv) pass the required skill test for the aircraft class rating being sought.

(d) PRIVILEGES. Subject to compliance with these Requirements, the privileges of the holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.

(e) VALIDITY: Subject to compliance with these Requirements, the validity period of:

(1) a multi-engine class rating is 1 calendar year;

(2) a single-engine class rating, balloon – gas or balloon – hot air is 2 calendar years.

(f) RENEWAL.

(1) For the renewal of a single-engine class rating, a balloon – gas or balloon – hot air rating, the pilot shall:

(i) within the preceding 24 calendar months, complete a proficiency check on areas of operation listed in the skill test that is applicable to the level of licence, category and class rating; or

(ii) have completed 12 hours flight time within the 12 months preceding the expiry date if the pilot also holds a valid multi-engine class or type rating.

(2) For the renewal of a multi-engine class rating the pilot shall:

(i) within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the skill test that is applicable to the level of licence, category and class rating; and

(ii) have completed 10 route sectors within the 3 months preceding the expiry date.

(3) Where applicable the proficiency check shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure.

(4) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(g) REISSUE.:

(1) If the class rating has expired the applicant shall:

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

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

(2) Where applicable the skill test shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.

2.3.2.4 TYPE RATINGS

(a) The type rating shall be endorsed on the licence as a rating, including any limitations..

(b) The holder of a pilot licence seeking addition of an aircraft type rating shall:

(1) Have received training from an authorised instructor in the applicable type of aircraft and/or approved FSTD, including the following:

(i) Normal flight procedures and manoeuvres during all phases of flight;

(ii) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, systems, and airframe

(iii) Where applicable, instrument procedures, including instrument approach, missed approach, and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure

(iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation (where applicable), and use of checklists; and

(v) For the issue of an aeroplane category type rating, upset prevention and recovery training.

(2) Hold or concurrently obtain an IR that is appropriate to the aircraft category, class, or type rating sought;

(3) Have an endorsement in his or 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;

NOTE: Applicants for a type rating in the powered-lift category shall complete the required theoretical knowledge and flight instruction during a course of approved training which shall incorporate all relevant aspects of operating an aircraft of the powered-lift category, and shall take into account the previous experience of the applicant in an aeroplane or a helicopter.

(4) Demonstrate the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the duties of a PIC or a CP;

(5) Demonstrate, at the ATPL level, an extent of knowledge as specified in paragraph 2.3.3.5(b) of these Requirements;

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

(i) Applicants seeking a private or commercial licence in an aircraft that requires a type rating shall also complete the applicable portions of either the PPL or CPL skill test in conjunction with the ATPL skill test

(7) Perform the skill test under IFR unless the aircraft used for the skill test is not capable of the instrument manoeuvres and procedures required for the skill test, in which case the applicant may:

(i) Obtain a type rating limited to "VFR only;" and

(ii) Remove the "VFR only" limitation for each aircraft type in which the applicant demonstrates compliance with the ATPL skill test under instrument conditions.

(c) Applicants seeking a type rating for aircraft certificated for single-pilot operations shall comply with the requirements of 2.3.2.4 (b) (1-4)

(d) PRIVILEGES. Subject to compliance with these Requirements, the privileges of the holder of a type rating are to act as a pilot on the type of aircraft specified in the rating. When a type rating is issued limiting the privileges to act as CP or limiting the privileges to act as pilot only during the cruise phase of flight, such limitation shall be endorsed on the rating.

(e) VALIDITY. Subject to compliance with these Requirements, the validity period of a type rating is 1 calendar year

(f) RENEWAL

(1) For the renewal of a type rating, the pilot shall:

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

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

(2) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot

is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(g) REISSUE. If the type rating has expired the applicant shall:

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

(2) Pass the required skill test for the appropriate category, type, and, if applicable, class of aircraft.

2.3.2.5 CATEGORY II AND III AUTHORIZATION

(a) *General.*

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

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

(i) hold a pilot licence with an instrument rating; and

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

(b) *Knowledge.* The applicant for a Category II or III pilot authorization shall have completed the theoretical knowledge instruction and demonstrated in a test the knowledge subjects as listed in IS 2.3.2.5.

(c) *Experience.* The applicant for a Category II or III pilot authorization shall have at least:

(1) 50 hours of night flight time as PIC;

(2) 75 hours of instrument time under actual or simulated instrument conditions; and

(3) 250 hours of cross-country flight time as PIC.

(d) *Flight instruction.* The applicant for a Category II or III pilot authorization shall have completed the flight instruction on the subjects listed in IS 2.3.2.5.

(e) *Skill*. The applicant for a Category II or III pilot authorization shall pass a skill test including the subjects listed in IS 2.3.2.5.

(f) *Validity*. Subject to compliance with these Requirements, the validity period of a Category II and III authorization is 6 months.

(g) *Renewal*. For the renewal of a Category II or III pilot authorization the pilot shall have completed a proficiency check including the subjects listed in IS 2.3.2.5.

(h) *Re-issue*. If the Category II or the Category III have been expired the applicant shall:

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

(2) pass the required skill test on the subjects listed in IS 2.3.3.4 Appendix B (Section 10) for aeroplane or IS 2.3.3.8 Appendix B (Section 9) for helicopter, as applicable.

2.3.2.6 COMPLEX AEROPLANE ENDORSEMENT

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

(1) Received and logged ground and flight training from an authorised instructor in a complex aeroplane or flight simulation training device that is representative of a complex aeroplane and has been found proficient in the operation and systems of the aeroplane; and

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

2.3.2.7 HIGH-PERFORMANCE AEROPLANE ENDORSEMENT

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

(1) Received and logged ground and flight training from an authorised instructor in a high-performance aeroplane or flight simulation training device that is representative of a high performance aeroplane and has been found proficient in the operation and systems of the aeroplane; and

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

2.3.2.8 HIGH-ALTITUDE AIRCRAFT ENDORSEMENT

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

(1) Received and logged ground training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished ground training in at least the in the following subjects:

(i) High-altitude aerodynamics and meteorology

(ii) Respiration

(iii) Effects, symptoms, and causes of hypoxia and any other high-altitude sickness;

(iv) Duration of consciousness without supplemental oxygen

(v) Effects of prolonged usage of supplemental oxygen

(vi) Causes and effects of gas expansion and gas bubble formation

(vii) Physical phenomena and incidents of decompression; and any other physiological aspects of high-altitude flight.

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

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

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

(iii) Emergency descent procedures.

2.3.3 STUDENT PILOTS, PILOT LICENCES, INSTRUMENT AND INSTRUCTOR RATINGS

2.3.3.1 STUDENT PILOTS

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

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

(1) applicable sections of these requirements and rules of the air requirements;

(2) airspace rules and procedures for the airport where the student will perform solo flight; and

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

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

(1) received and logged flight training for the manoeuvres and procedures as listed in IS 2.3.3.1.

(2) demonstrated satisfactory proficiency and safety, as judged by an authorized instructor, on the manoeuvres and procedures as listed in IS 2.3.3.1.

(d) *Solo Flight Requirements:*

(1) A student pilot shall not fly solo:

(i) unless holding at least a Class 2 medical certificate; and

(ii) unless with the authority of an authorized flight instructor.

(2) A student pilot shall not fly solo on an international flight unless authorised by the Director-General in accordance with arrangements with the other States concerned.

(e) *Validity* The validity period of a student pilot authorisation is 2 years

(f) *Reissue* An applicant for reissue of a student pilot authorisation that has expired shall receive and log refresher training from an authorised instructor on the subjects listed in (b) above.

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

(a) *Age*.

(1) The applicant for a PPL shall be not less than 17 years of age.

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

(b) *Knowledge*. The applicant shall receive and log ground training from an authorized instructor to a level of knowledge appropriate to the privileges granted to the holder of a PPL and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:

(1) Air law: rules and regulations relevant to the holder of a PPL with the appropriate aircraft category; rules of the air; altimeter setting procedures; appropriate air traffic services practices and procedures:

(2) Aircraft general knowledge for aeroplane, helicopter, powered-lift and airship:

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

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

(iii)For helicopter and powered-lift — transmission (power-trains) where applicable;

(iv)For airship— physical properties and practical application of gases;

(3) Flight performance, planning and loading:

(i) effects of loading and mass distribution on flight characteristics; mass and balance calculations;

(ii) use and practical application of take-off, landing and other performance data;

(iii) pre-flight and en-route flight planning appropriate to private operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; position reporting procedures; altimeter setting procedures; operations in areas of high-density traffic;

(4) Human performance: human performance including principles of threat and error management

(5) Meteorology: application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous whether conditions;

(6) Navigation: practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

(7) Operational procedures:

(i) Application of threat and error management to operational performance;

(ii) Altimetry setting procedures;

(iii)use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iv)appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

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

(8) Principles of flight:

(i) principles of flight relating to the category of aircraft;

(9) Radiotelephony:

(i) communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure;

(ii) as listed in IS 2.3.3.2 Appendix A;

(c) *Knowledge testing*. The applicant for a PPL:

(1) shall have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training to the required level on the knowledge subjects;

(ii) certifies that the person is prepared for the required knowledge test; and

(2) shall pass the required knowledge test on the knowledge areas listed in IS 2.3.3.2 appropriate to the category of aircraft

(d) *Experience and flight instruction.* An applicant for a PPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in these Requirements.

(e) *Skill.* The applicant for a PPL shall:

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

(2) have demonstrated by passing a skill test the ability to perform as pilot-in-command of an aircraft within the appropriate category, the areas of operation described in the applicable section at IS 2.3.3.2, with a degree of competency appropriate to the privileges granted to the holder of a PPL, and to

(i) recognize and manage threats and errors;

(ii) operate the aircraft within its limitations;

(iii)complete all manoeuvres with smoothness and accuracy;

(iv)exercise good judgement and airmanship;

(v) apply aeronautical knowledge; and

(vi)maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

(f) *Medical fitness.* The applicant for a PPL shall hold a current Class 2 medical certificate.

(g) *Privileges.*

(1) Subject to compliance with these Requirements, the privileges of the holder of a PPL shall be to act, but not for remuneration, as pilot-in-command or co-pilot of aircraft within the appropriate aircraft category engaged in non-revenue flights.

(2) Before exercising the privileges at night, the holder shall have received dual instruction in aircraft within the appropriate category of aircraft in night flying including take-off, landing and navigation.

(3) Subject to compliance with these Requirements the privileges of the holder of a glider pilot licence shall be to act as pilot-in-command of any glider provided the licence holder has operational experience in the launching method used. If passengers are to be carried, the licence holder shall have completed not less than 10 hours of flight time as a pilot of gliders.

(4) Subject to compliance with the Requirements the privileges of the holder of a free balloon pilot licence shall be to act as pilot-in-command of any free balloon provided that the licence holder has operational experience in hot air or gas balloons as appropriate

2.3.3.2.1 EXPERIENCE AND FLIGHT INSTRUCTION REQUIREMENTS FOR THE PPL – AEROPLANE CATEGORY

(a) *Experience.*

(1) The applicant for a PPL (A) shall have completed not less than 40 hours of flight time or 35 hours if completed during a course of approved training as pilot of aeroplanes appropriate to the class rating sought. A total of 5 hours as pilot under instruction in an approved flight simulation training device may be accepted as part of the total flight time.

(2) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as pilot-in-command towards a PPL(A).

(3) The applicant shall have completed in aeroplanes not less than 10 hours of solo flight time appropriate to the class rating sought under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(b) *Flight Instruction.*

(1) The applicant for a PPL(A) shall have received and log not less than 20 hours of dual instruction time in aeroplanes appropriate to the class rating sought from an authorised flight instructor on the subjects listed in IS 2.3.3.2.1. These 20 hours may include 5 hours completed in a flight simulation training device, and shall include:

(i) 3 hours of cross country flight training;

(ii) 3 hours of night flight training that includes one cross country flight of over 100 NM and 10 take-offs and 10 landings to a full stop at an airport with each landing involving a flight in the traffic pattern.

(iii)3 hours of instrument flight training

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

(i) recognize and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(iii)aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv)control of the aeroplane by external visual reference;

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

(vi)flight at critically high airspeeds; recognition of, and recovery from, spiral dives;

(vii) normal and cross-wind take-offs and landings;

(viii) maximum performance (short field and obstacle clearance take-offs, short-field landings;

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

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

(xi)emergency operations, including simulated aeroplane equipment malfunctions; and

(xii) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and

(xiii) communication procedures and phraseology

2.3.3.2.2 EXPERIENCE AND FLIGHT INSTRUCTION REQUIREMENTS FOR THE PPL – HELICOPTER CATEGORY

(a) *Experience.*

(1) The applicant for a PPL-H shall have completed not less than 40 hours of flight time or 35 hours if completed during a course of approved training as pilot of helicopters. A total of 5 hours as pilot under instruction in an approved flight simulation training device may be accepted as part of the total flight time.

(2) The holder of pilot licences in other categories may be credited with 10 hours of the total flight time as pilot-in-command towards a PPL(H).

(3) The applicant shall have completed in helicopters not less than 10 hours of solo flight time under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which full-stop landings at two different points shall be made.

(b) *Flight instruction.*

(1) The applicant for a PPL(H) shall have received and log not less than 20 hours of dual instruction time in aeroplanes appropriate to the class rating sought from an authorised flight instructor on the subjects listed in IS 2.3.3.2.2. These 20 hours may include 5 hours completed in a flight simulation training device, and shall include:

(i) 3 hours of cross country flight training;

(ii) 3 hours of night flight training that includes one cross country flight of over 50 NM.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot :

(i) recognize and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;

(iii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) control of the helicopter by external visual reference;

(v) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

(vi) ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground;

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

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

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

(x) emergency operations, including simulated helicopter equipment malfunctions; autorotative approach; and

(xi) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures,

(xii) communication procedures and phraseology.

2.3.3.2.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL – POWERED-LIFT CATEGORY

(a) *Experience*

(1) The applicant for a PPL(PL) shall have completed not less than 40 hours of flight time as pilot of powered-lift.

(2) The holder of pilot licences in helicopter or aeroplane categories may be credited with 10 hours of the total flight time as pilot-in-command towards a PPL(PL).

(3) The applicant shall have completed in powered-lift not less than 10 hours of solo flight time under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

(b) *Flight Instruction.*

(1) The applicant for a PPL(PL) shall have received and log not less than 20 hours of dual instruction time in aeroplanes appropriate to the class rating sought from an authorised flight instructor on the subjects listed in IS 2.3.3.2.3. These 20 hours may include 5 hours completed in a flight simulation training device, and shall include:

(i) 3 hours of cross country flight training;

(ii) 3 hours of night flight training that includes one cross country flight of over 100 NM and 10 take-offs and 10 landings to a full stop at an airport with each landing involving a flight in the traffic pattern.

(iii)3 hours of instrument flight training

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot :

(i) recognize and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;

(iii)aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv)control of the powered-lift by external visual reference;

(v) 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;

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

(vii) flight by reference solely to instruments, including the completion of a level 180° turn;

(viii) recovery at the incipient stages from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

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

(x) emergency operations, including simulated powered-lift equipment malfunctions; power off reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable and

(xi) operations to, from and transitting controlled aerodromes, compliance with air traffic services procedures,

(xii) communication procedures and phraseology

2.3.3.2.4 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL – AIRSHIP CATEGORY

(a) *Experience.*

(1) The applicant shall have completed not less than 25 hours of flight time as pilot of airships including at least:

(i) 3 hours of cross-country flight training in an airship with a cross-country flight totalling not less than 45 km (25 NM);

(ii) 5 take-offs and 5 landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern;

(iii) 3 hours of instrument time; and

(iv) 5 hours as pilot assuming the duties of the pilot-in-command under the supervision of the pilot-in-command.

(b) *Flight Instruction.*

(1) The applicant shall have received dual instruction in airships from an authorised flight instructor. The instructor shall ensure that the applicant has received instruction in at least the following areas to the level of performance required for the private pilot:

(i) recognize and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, airships inspection and servicing;

(iii) ground reference manoeuvres;

(iv) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(v) techniques and procedures for take-off, including appropriate limitations, emergency procedures and signals used;

(vi) control of the airships by external visual reference;

(vii) take-offs and landings and go-around;

(viii) maximum performance (obstacle clearance) take-offs;

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

(x) navigation cross-country flying using visual reference, dead reckoning and radio navigation aids;

(xi) emergency operations (recognition of leaks), including simulated airships equipment malfunctions; and

(xii) communication procedures and phraseology

2.3.3.2.5 EXPERIENCE, AIRCRAFT GENERAL KNOWLEDGE AND FLIGHT INSTRUCTION FOR THE PPL – BALLOON CATEGORY

(a) *Experience.*

(1) The applicant shall have completed not less than 16 hours of flight time as pilot of free balloons including at least 8 launches and ascents of which one must be solo.

(b) *Flight Instruction.*

(1) The applicant shall have received dual instruction in free balloons from an authorised flight instructor in the areas of operation listed in IS 2.3.3.2.5 that includes:

(i) *Gas Balloon.* If the training is being performed in a gas balloon, at least 2 flights of 2 hours each that consists of at least:

- one training flight within 60 days prior to application for the rating on the areas of operation for a gas balloon;
- one flight performing the functions of PIC in a gas balloon; and
- one flight involving a controlled ascent to 3000 feet above the launch site

(ii) *Hot Air Balloon.* If the training is being performed in a balloon with an airborne heater, at least:

- two flights of one hour each within 60 days prior to application for the rating on the areas of operation appropriate to a hot air balloon
- one solo flight in a hot air balloon; and
- one flight involving a controlled ascent to 2000 feet above the launch site

(2) The instructor shall ensure that the applicant has received instruction in at least the following areas to the level of performance required for the private pilot.

(i) pre-flight operations;

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

(iii) collision avoidance precautions;

(iv) control of a free balloon by external visual reference;

(v) recognition of, and recovery from, rapid descents;

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

(vii) approaches and landings, including ground handling;

(viii) emergency procedures

(3) If the privileges of the licence are to be exercised at night, the applicant shall have gained, under appropriate supervision operational experience in free balloons in night flying.

(c) Aircraft General Knowledge.

(1) The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a free balloon pilot licence, in at least the following subjects:

(i) principles of operation of free balloon systems and instruments;

(ii) operating limitations of free balloons; relevant operational information from the flight manual or other appropriate document; and

(iii) physical properties and practical application of gases used in free balloons;

2.3.3.2.6 EXPERIENCE, AIRCRAFT GENERAL KNOWLEDGE AND FLIGHT INSTRUCTION FOR THE PPL – GLIDER CATEGORY

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

(b) *Flight Instruction.* The applicant for a glider pilot licence shall have received from an authorised instructor dual instruction in a glider in at least the following areas:

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

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

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

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

(5) flight throughout the flight envelope;

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

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

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

(9) emergency procedures.

(c) *Crediting of flight 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.

(d) *Aircraft general Knowledge.* The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a glider pilot licence, in at least the following subjects:

(1) principles of operation of glider systems and instruments; and

(2) operating limitations of gliders; relevant operational information from the flight manual or other appropriate document

(e) *Skill.* The applicant shall have demonstrated the ability to perform as pilot-in-command of a glider, the procedures and manoeuvres described in 2.3.3.2.6(b) with a degree of competency appropriate to the privileges granted to the holder of a glider pilot licence, and to:

(1) recognize and manage threats and error;

(2) operate the glider within its limitations;

(3) complete all manoeuvres with smoothness and accuracy;

(4) exercise good judgement and airmanship;

(5) apply aeronautical knowledge; and

(6) maintain control of the glider at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

2.3.3.3 COMMERCIAL PILOT LICENCE

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

(b) *Knowledge areas.* The applicant for a CPL shall receive and log ground training from an authorized instructor, to a level of knowledge appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft intended to be included in the licence in at least the following subjects:

(1) Air law:

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

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

(2) Aircraft general knowledge:

(i) principles of operation and functioning of powerplants, systems and instruments;

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

(iii) use and serviceability checks of equipment and systems of appropriate aircraft;

(iv) maintenance procedures for airframes, systems and powerplants of appropriate aircraft;

(v) for helicopters and powered-lift, transmission (power trains) where applicable;

(vi) for airship and balloons, physical properties and practical application of gases;

(3) Flight performance, planning and loading:

(i) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(ii) use and practical application of take-off, landing and other performance data;

(iii) pre-flight and en-route flight planning appropriate to commercial operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;

(iv) in the case of helicopter and powered-lift, effects of external loading;

(4) Human performance:

(i) human performance relevant to the appropriate aircraft type;

(ii) principles of threat and error management;

(5) Meteorology:

(i) interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the moment of pressure systems, the

structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;

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

(6) Navigation:

(i) air navigation, including the use of aeronautical charts, instruments and navigation aids; understanding of the principles and characteristics of appropriate navigation systems; operation of air borne equipment

(7) Operation procedures:

(i) Application of threat and error management to operational performance;

(ii) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iii) altimeter setting procedures;

(iv) appropriate precautionary and emergency procedures;

(v) operational procedures for carriage of freight; potential hazards associated with dangerous goods;

(vi) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

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

(8) Principles of flight:

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

(9) Radiotelephony:

(i) communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure;

(ii) as further specified in IS 2.3.3.3 Appendix A.

(c) *Knowledge testing.* The applicant for a CPL shall:

(1) have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training to the required level on the knowledge subjects; and

(ii) certifies that the person is prepared for the required knowledge test; and

(2) Pass the required knowledge test on the knowledge subjects listed in IS 2.3.3.3.

(d) *Skill*. The applicant for a CPL shall:

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

(2) shall have demonstrated by passing a skill test the ability to perform as pilot-in-command of an aircraft within the appropriate category of aircraft, the areas of operation described in IS 2.3.3.3, with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to

(i) recognise and manage threats and errors

(ii) operate the aircraft within its limitations;

(iii)complete all manoeuvres with smoothness and accuracy;

(iv)exercise good judgement and airmanship;

(v) apply aeronautical knowledge; 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.

(e) *Medical fitness*. The applicant for a CPL shall hold a current Class 1 medical certificate.

(f) *Privileges*. Subject to compliance with these Requirements, the privileges of the holder of a CPL shall be:

(1) to exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;

(2) to act as pilot-in-command in any aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;

(3) to act as pilot-in-command in commercial air transportation in any aircraft within the appropriate aircraft category certificated for single-pilot operation;

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

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

(g) *Exercising of privileges at night.* Before exercising the privileges at night, the licence holder shall have received dual instruction in aircraft within the appropriate category in night flying, including take-off landing and navigation.

2.3.3.3.1 EXPERIENCE AND FLIGHT INSTRUCTION FOR CPL — AEROPLANE CATEGORY

(a) Experience

(1) The applicant for a CPL(A) shall have completed not less than 200 hours of flight time, or 150 hours if completed during an approved training course provided for in an Approved Training Organisation under the Requirements for ATO 2024 as a pilot of aeroplanes. Not more than 20 hours of the total required time may have been completed in an approved flight simulation training device.

(2) The applicant shall have completed in aeroplanes not less than:

(i) 100 hours as pilot-in-command or, in the case of a course of approved training, 70 hours as pilot-in-command;

(ii) 20 hours of cross-country flight time as pilot-in-command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;

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

(iv)if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.

(3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:

(i) 10 hours as PIC in a category other than helicopters;

(ii) 30 hours as pilot-in-command holding a PPL(H) on helicopters; or

(iii)100 hours as pilot-in-command holding a CPL(H) on helicopters.

(4) The applicant for a CPL(A) shall hold a PPL(A) issued under these Requirements except where the applicant is applying for validation or conversion of a foreign pilot licence.

(b) *Flight Instruction*

(1) The applicant for a CPL(A) shall receive and log not less than 25 hours of dual instruction appropriate to the class and/or type rating sought from an authorized instructor. These 25 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) recognise and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

(iii)aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv)control of the aeroplane by external visual reference;

(v) flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls

(vi)flight with asymmetrical power for multi-engine class or type ratings;

(vii) flight at critically high airspeeds; recognition of, and recovery from, spiral dives;

(viii) normal and cross-wind take-offs and landings;

(ix)maximum performance (short field and obstacle clearance take-offs, short-field landings;

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

(xi) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;

(xii) abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;

(xiii) operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures; and

(xiv) communication procedures and phraseology.

(xv) upset prevention and recovery in actual flight.

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

2.3.3.3.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – HELICOPTER CATEGORY

(a) *Experience*

(1) The applicant for a CPL(H) shall have completed not less than 150 hours of flight time, or 100 hours if completed during an approved training course provided for in an Approved Training Organisation under the Requirements for ATO 2024 as a pilot of helicopters. Not more than 10 hours of the total required time may have been completed in a flight simulation training device.

(2) The applicant shall have completed in helicopters not less than:

(i) 35 hours as pilot-in-command ;

(ii) 10 hours of cross-country flight time as pilot-in-command including a cross-country flight in the course of which full-stop landings at two different points shall be made;

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

(iv) if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.

(3) The holder of a pilot licence in another category may be credited towards the 150 hours of flight time as follows:

(i) 20 hours as pilot-in-command holding a PPL(A) in aeroplanes; or

(ii) 50 hours as pilot-in-command holding a CPL(A) in aeroplanes.

(4) The applicant for a CPL(H) shall hold a PPL(H) issued under these Requirements except where the applicant is applying for validation or conversion of a foreign pilot licence.

(b) *Flight Instruction*

(1) The applicant for a CPL(H) shall receive and log not less than 30 hours of dual instruction appropriate to the class and/or type rating sought from an authorized instructor. These 25 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) 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 and manoeuvres including simulated helicopter equipment malfunctions, autorotative approach and landing; and

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

(xiii) communication procedures and phraseology.

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

2.3.3.3.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – POWERED-LIFT CATEGORY

(a) *Experience*

(1) The applicant shall have completed not less than 200 hours of flight time in a powered lift, or 150 hours if completed during an approved training course provided for in an Approved Training Organisation, as a pilot of aircraft. Not more than 10 hours of the total required time may have been completed in a flight simulation training device.

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

(i) 50 hours as pilot-in-command;

(ii) 10 hours of cross-country flight time as pilot-in-command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;

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

(iv)if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.

(3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:

(i) 10 hours as PIC in a category other than aeroplanes or helicopters;

(ii) 30 hours as pilot-in-command holding a PPL on aeroplanes or helicopters; or

(iii)100 hours as pilot-in-command holding a CPL on aeroplanes or helicopters.

(b) *Flight Instruction*

(1) The applicant shall receive and log not less than 25 hours of dual instruction in a powered-lift from an authorized instructor. These 25 hours may include 5 hours completed in a flight simulation training device.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) recognise and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;

(iii)aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv)control of the powered-lift by external visual reference;

(v) ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings – normal, out of wind and sloping ground; steep approaches;

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

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

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

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

(x) emergency operations, including simulated powered-lift equipment malfunctions, where applicable; power off reconversion to autorotation; autorotative approach; transmission and interconnect driveshaft failure;

(xi) operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures; and

(xii) communication procedures and phraseology.

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

2.3.3.3.4 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – AIRSHIP CATEGORY

(a) *Experience*

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

(2) The applicant shall have completed not less than:

(i) 50 hours as a pilot in airships;

(ii) 30 hours as pilot-in-command or pilot-in-command under supervision in airships, to include not less than:

- 10 hours of cross-country flight time; and
- 10 hours of night flight;

(iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours shall be in flight in airships; and

(iv) 20 hours of training in airships on the areas of operation listed in item (b) below.

(b) *Flight Instruction*

(1) The applicant shall receive and log dual instruction in airships from an authorized instructor.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) recognise and manage threats and errors;

(ii) pre-flight operations, including mass and balance determination, airships inspection and servicing;

(iii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

(iv) techniques and procedures for take-off, including appropriate limitations, emergency procedures and signals used;

(v) control of the airships by external visual reference;

(vi) Recognition of leak;

(vii) Normal take-offs and landings;

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

(ix) Flight under IFR;

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

(xi) emergency operations, including simulated airship equipment malfunctions;

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

(xiii) communication procedures and phraseology.

2.3.3.3.5 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – BALLOON CATEGORY

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

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

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

(ii) 10 flights in a free balloon; and

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

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

(i) for a gas balloon rating:

- 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;
- 2 flights performing the functions of PIC in a gas balloon on the appropriate areas of operation; and
- I flight involving a controlled ascent to 5000 feet above the launch site.

(ii) for a hot air balloon rating:

- 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;
- 2 solo flights in a balloon with an airborne heater on the appropriate areas of operations; and
- 1 flight involving a controlled ascent to 3000 feet above the launch site.

(b) *Flight Instruction*

(1) The applicant shall receive and log dual instruction in balloons from an authorized instructor.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) technical subjects;

(ii) pre-flight operations, including balloon assembly, rigging, inflation, mooring and inspection;

(iii)Pre-flight lessons on a manoeuvre to be performed in flight;

(iv)Aerodromes operations, transiting controlled aerodromes, compliance with air traffic services procedures, communication procedures and phraseology

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

(vi)collision avoidance precautions;

(vii) control of a free balloon by external visual reference;

(viii) recognition of, and recovery from, rapid descents;

(ix)navigation and cross-country flying using visual reference and dead reckoning;

(x) approaches and landings, including ground handling;

(xi)emergency procedures

(xii) Post-flight procedures.

2.3.3.3.6 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – GLIDER CATEGORY

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

(1) 25 hours of flight time as a pilot in a glider during which at least 100 flights in a glider as PIC must be completed, and including at least:

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

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

(2) 200 hours of flight time as a pilot in aeroplanes, helicopters or powered-lift aircraft, and 20 flights in gliders as PIC, including at least:

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

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

(b) *Flight Instruction*

(1) The applicant shall receive and log dual instruction in gliders from an authorized instructor.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

(i) pre-flight preparations;

(ii) pre-flight procedures;

(iii) aerodrome and glider port operations;

(iv) launches and landings;

(v) performance speeds;

(vi) soaring techniques;

(vii) performance manoeuvres;

(viii) navigation;

(ix) slow flight and stalls;

(x) emergency procedures; and

(xi) post-flight procedures.

2.3.3.4 MULTI-CREW PILOT LICENCE

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

(b) Competencies. The applicant shall satisfactorily demonstrate the competencies identified in an adapted competency model to perform as co-pilot of a turbine-powered air transport aeroplane certificated for operation with a minimum crew of at least two pilots. The adapted competency model shall be approved by the Director-General, using as a basis the ICAO aeroplane pilot competency framework contained in ICAO Doc 9868, *Procedures for Air Navigation Services – Training (PANS-TRG)*.

(c) *Knowledge*.

(1) The applicant for a MPL shall

(i) meet the requirements specified in 2.3.3.5 (b) of these Requirements for the airline transport pilot licence appropriate to the aeroplane category in an approved training course; and

(ii) meet the additional requirements underpinning the approved adapted competency model including fully integrated knowledge and skill requirements.

(iii) training in the underpinning knowledge requirements shall be fully integrated with the training of the underpinning skill requirements.

(2) The applicant for an MPL knowledge test shall:

(i) have received an endorsement for the knowledge test from an authorised instructor who conducted the training on the knowledge subjects and certifies that the person is prepared for the required knowledge test; and

(ii) pass the required written knowledge test on the knowledge areas specified in paragraph 2.3.3.5(b) of these Requirements.

(d) Skill. The applicant for a MPL shall:

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

(2) shall demonstrate the underpinning skills required for the competencies of the approved adapted competency model as pilot flying and pilot monitoring, to the level required to perform as a CP of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR.

(e) *Medical Fitness.* The applicant shall hold a Class 1 medical certificate

(f) *Privileges of the holder of the MPL and the conditions to be observed in exercising such privileges.*

(1) Subject to compliance with these Requirements, the privileges of the holder of a MPL shall be:

(i) to exercise all the privileges of the holder of a PPL in the appropriate aeroplane category provided the requirements of 2.3.3.2.1 have been met;

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

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

(2) Before exercising the privileges of the IR in a single pilot operation, the licence holder shall have demonstrated the ability to act as pilot-in-command in a single pilot operation exercised by reference solely to instruments and shall have met the IR skill requirements specified in paragraph 2.3.3.6.(f).

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

(i) completed 70 hours, either as PIC, or made up by 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 PIC, or made up by not less than 10 hours as PIC and 10 hours as PIC under supervision, including a cross-country flight totalling not less than 540km (300 NM) in the course of which full-stop landings shall be made at two different aerodromes; and

(iii)met the relevant requirements for the commercial pilot licence specified in 2.3.3.3(b), 2.3.3.3(d), 2.3.3.3.1 (with the exception of 2.3.3.3.1(a)(2)(i)) and 2.3.3.3.1(b).

(g) *Experience.*

(1) The applicant shall have completed in an approved training course not less than 240 hours which includes actual and simulated flight as pilot flying and as pilot monitoring .

(2) Flight experience in actual flight shall include at least the experience requirements in 2.3.3.2.1(a), upset recovery training, night flying, cross-country and flight solely by reference to instruments.

(3) In addition to meeting the provisions of item (2) above, the applicant shall have gained, in a turbine-powered aeroplane certificated for operation with a minimum crew of at least two pilots, or in a flight simulation training device approved for that purpose by the GCAA in accordance with IS 2.3.3.4 Appendix A(d), the experience necessary to achieve the advanced level of competency defined in IS 2.3.3.4 Appendix B.

(h) *Flight Instruction.*

(1) The applicant shall have completed a course of approved training covering all the knowledge and experience requirements specified in paragraph (g) above.

(2) The applicant shall have received dual flight instruction in all the competency units specified in IS 2.3.3.4 Appendix B 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.

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

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

(b) *Knowledge*. The applicant for an ATPL shall receive and log ground training from an authorized instructor, to a level of knowledge appropriate to the privileges granted to the holder of an airline transport pilot licence and appropriate to the category of aircraft intended to be included in the licence in at least the following subjects:

(1) Air law:

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

(2) Aircraft general knowledge for aeroplane and helicopter and powered-lift:

(i) general characteristics and limitations of electrical, hydraulic, pressurization and other aircraft systems; flight control systems, including autopilot and stability augmentation;

(ii) principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;

(iii) operating procedures and limitations of the relevant category of 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 appropriate aircraft;

(v) flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments and electronic display units;

(vi) maintenance procedures for airframes, systems and powerplants of appropriate aircraft;

(vii) for helicopter and powered-lift, transmission (power-trains) where applicable.

(3) Flight performance and planning:

(i) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(ii) use and practical application of take-off, landing and other performance data, including procedures for cruise control;

(iii) pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures

(iv) in the case of helicopter or powered-lift, effects of external loading on handling.

(4) Human performance:

(i) human performance relevant to the appropriate aircraft category

(ii) principles of threat and error management

(5) Meteorology:

(i) interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;

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

(iv) in the case of aeroplane and powered-lift, practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts, jetstreams.

(6) Navigation:

(i) air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;

(ii) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aircraft;

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

(iv) principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

(7) Operation procedures:

(i) Application of threat and error management to operational performance;

(ii) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(iii) precautionary and emergency procedures; safety practices;

(iv) operational procedures for carriage of freight and dangerous goods;

(v) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

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

(8) Principles of flight:

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

(9) Radiotelephony:

(i) communication procedures and phraseology;

(ii) action to be taken in case of communication failure.

(10) Instrument Rating knowledge requirement. In addition to the above subjects, the applicant for an airline transport pilot licence applicable to the aeroplane or powered-lift category, shall have met the knowledge requirements for the instrument rating at 2.3.3.6

(c) *Knowledge Testing.* The applicant for the ATPL shall:

(1) have received an endorsement for the knowledge test from an authorised instructor who:

(i) conducted the training on the knowledge subjects; and

(ii) certifies that the person is prepared for the required knowledge test; and

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

(d) *Experience and flight instruction.* An applicant for an ATPL shall have completed the experience and flight instruction requirements appropriate to the aircraft categories specified in these Requirements.

(e) *Skill.* The applicant for an ATPL shall:

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

(2) have demonstrated by passing a skill test the ability to perform, as pilot-in-command of an aircraft of the appropriate category required to be operated with a co-pilot, the following procedures and manoeuvres:

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

(ii) normal flight procedures and manoeuvres during all phases of flight;

(iii) abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems and airframe;

(iv) procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists;

(v) in the case of the aeroplane and the powered-lift, procedures and manoeuvres for instrument flight described in these Requirements, including simulated engine failure;

(vi) in the case of an aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in (i) to (v) above as pilot-in-command of a multi-engined aeroplane.

(3) have demonstrated by passing a skill test the ability to perform the areas of operation for flight instruction and skill test relevant to the aircraft category described in IS 2.3.3.5, with a degree of competency appropriate to the privileges granted to the holder of an ATPL, and to:

(i) recognize and manage threats and errors;

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

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

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

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

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

(f) *Medical fitness*. The applicant for an ATPL shall hold a current Class 1 medical certificate.

(g) *Privileges.*:

(1) Subject to compliance with these Requirements, the privileges of the holder of an ATPL shall be:

(i) 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,

(ii) in the case of a licence for the aeroplane and powered-lift categories, to exercise the privileges of the holder of an instrument rating; and

(iii) to act as pilot-in-command and co-pilot in commercial air transportation in an aircraft of the appropriate category, and class if applicable.

(2) When the holder of an ATPL in the aeroplane category has only previously held a MPL, the privileges of the licence shall be limited to multi-crew operations unless

the holder has met the requirements established in 2.3.3.4 (e) as appropriate. Any limitation of privileges shall be endorsed on the licence.

2.3.3.5.1 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL – AEROPLANE CATEGORY

(a) Experience.

(1) The applicant for an ATPL (A) shall have completed at least 1500 hours of flight time as a pilot of aeroplanes of which not more than 100 hours may have been completed as pilot under instruction in a flight simulator. The applicant shall have completed in aeroplanes not less than:

(i) 500 hours as pilot-in-command under supervision or 250 hours, either as pilot-in-command, or made up by not less than 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-commend under supervision;

(ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as pilot-in-commend under supervision;

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

(iv) 100 hours of night flight as pilot-in-command or as co-pilot.

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

(3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.2.4 Appendix B.

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

(b) *Flight Instruction*

(1) The applicant for an ATPL(A) shall have received the dual flight instruction required for the issue of the CPL and for the issue of the IR, or for the issue of the multi-crew pilot licence.

2.3.3.5.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL – HELICOPTER CATEGORY

(a) *Experience.*

(1) The applicant for an ATPL (H) shall have completed at least 1000 hours of flight time as a pilot of helicopters of which not more than 100 hours may have been completed in a flight simulator. The applicant shall have completed in helicopters not less than:

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

(ii) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as pilot-in-command under supervision;

(iii)30 hours of instrument time, of which not more than 10 hours may be instrument ground time; and

(iv)50 hours of night flight as pilot-in-command or as co-pilot.

(2) Holders of a CPL(A) will be credited with 50% of their aeroplane flight time as pilot-in-command towards the flight time required in item (1) above.

(3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.2.4 Appendix B.

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

(b) *Flight Instruction*

(1) The applicant for an ATPL(H) shall have received the flight instruction required for the issue of the CPL

Note. – The instrument time specified in (a)(1)(iii) above and the night flying time specified in (a)(1)(iv) above do not entitle the holder of the ATPL (H) to pilot helicopters under IFR.

2.3.3.5.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL – POWERED-LIFT CATEGORY

(a) *Experience.*

(1) The applicant shall have completed at least 1500 hours of flight time as a pilot of powered-lifts of which not more than 100 hours may have been completed in a flight simulator. The applicant shall have completed in powered-lifts not less than:

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

(ii) 100 hours of cross-country flight time, of which not less than 50 hours shall be as pilot-in-command or as pilot-in-command under supervision;

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

(iv)25 hours of night flight as pilot-in-command or as co-pilot.

(2) Holders of a CPL(A) and/or CPL(H) will be credited with 50% of their aeroplane and/or helicopter flight time as pilot-in-command towards the flight time required in item (1) above.

(3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.2.4 Appendix B

(4) The applicant for an ATPL(PL) shall be the holder of a CPL(PL) issued under these Requirements.

(b) *Flight Instruction.*

(1) The applicant shall have received the dual flight instruction required in these Requirements for the issue of the CPL (PL) and for the issue of the Instrument Rating.

2.3.3.6 INSTRUMENT RATING

(a) *General*. The holder of a pilot licence shall not act either as pilot-in-command or as co-pilot of an aircraft under instrument flight rules (IFR) unless such holder has an instrument rating appropriate to the aircraft category.

(b) *Knowledge*. The applicant for an IR shall have received and logged ground training from an authorized instructor on the following subjects:

(1) Air law:

(i) rules and regulations relevant to flight under IFR; related air traffic services practices and procedures;

(2) Aircraft general knowledge for the aircraft category being sought:

(i) use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation under IFR and in instrument meteorological conditions; use and limitations of automation;

(ii) compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

(3) Flight performance and planning for the category of aircraft being sought:

(i) pre-flight preparations and checks appropriate to flight under IFR;

(ii) operational flight planning; preparation and filing of air traffic services flight plans under IFR; altimeter setting procedures;

(4) Human performance for the category of aircraft being sought:

(i) human performance relevant to instrument flight in aircraft

(ii) principles of threat and error management;

(5) Meteorology for the category of aircraft 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 engine and airframe icing; frontal zone penetration procedures; hazardous weather avoidance;

(iii)in the case of helicopter and powered-lift, effects of rotor icing;

(6) Navigation for the category of aircraft sought:

(i) practical air navigation using navigation systems;

(ii) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of navigation sources;

(7) Operation procedures for the category of aircraft being sought:

(i) application of threat and error management to operational procedures

(ii) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach;

(iii)precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;

(8) Radiotelephony:

(i) Communication procedures and phraseology as applied to aircraft operations under IFR;

(ii) action to be taken in case of communication failure;

(c) *Knowledge Testing.* An applicant for an Instrument Rating shall:

(1) have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training on the knowledge subjects;

(ii) certifies that the person is prepared for the required knowledge test; and

(2) pass the required knowledge test on the knowledge subjects listed in item (b) above.

(d) *Experience.*

(1) The applicant for an IR shall hold a pilot licence for the aircraft category being sought.

(2) The applicant shall have completed not less than:

(i) 50 hours of cross-country flight time as pilot-in-command of aeroplanes, airships, helicopters or powered-lifts, and of which not less than 10 hours shall be in the aircraft category being sought; and

(ii) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorized instructor.

(e) *Fight Instruction.*

(1) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in item (d) above while receiving and logging dual instrument flight instruction in the aircraft category being sought from an authorized flight instructor on the subjects listed in IS 2.3.3.6 Appendix B.

(2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an instrument rating:

(i) pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic services documents in the preparation of an IFR flight plan;

(ii) pre-flight inspection, use of checklists, taxiing and pre-take-off checks;

(iii)procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least:

— transition to instrument flight on take-off;

— standard instrument departures and arrivals;

— en-route IFR procedures and navigation;

— holding procedures;

— instrument approaches to specified minima;

— missed approach procedures;

— landings from instrument approaches;

(3) in flight manoeuvres and particular flight characteristics.

(4) If the privileges of the instrument rating are to be exercised on multi-engine aeroplanes, the applicant shall have received dual instrument flight instruction in such an aeroplane from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in the operation of the aeroplane

solely by reference to instruments with one engine inoperative or simulated inoperative.

(f) *Skill.* The applicant for an IR shall:

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

(2) have demonstrated by passing a skill test the ability to perform the areas of operation described in IS 2.3.3.6 Appendix B, 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 for the category being sought, within its limitations;

(iii)complete all manoeuvres with smoothness and accuracy;

(iv)exercise good judgement and airmanship;

iv) 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;

(3) have demonstrated by passing a skill test the ability to operate multi-engine aeroplanes solely by reference to instruments with one engine inoperative, or simulated inoperative, described in IS 2.3.3.6 Appendix B, if the privileges of the instrument rating are to be exercised on multi-engined aeroplanes.

(g) *Medical fitness.* The applicant for an IR shall hold a current Class 1 medical certificate

(h) *Privileges of the holder of an IR and conditions to be observed while exercising the privileges.*

(1) Subject to compliance with these Requirements, the privileges of the holder of an IR with a specific aircraft category shall be to pilot that category of aircraft under IFR.

(2) Before exercising the privileges on multi-engine aeroplanes the holder of the rating shall have complied with the requirements of (f)(3) above.

(i) *Validity.* Subject to compliance with these Requirements, the validity period of an Instrument Rating is 1 year.

(j) *Renewal:*

(1) For the renewal of a single-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.3.6 Appendix B.

(2) For the renewal of a multi-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.3.6 Appendix B.

(3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.

(k) *Re-issue*. If the instrument rating has been expired the applicant shall:

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

(2) pass the required skill test on the subjects listed in IS 2.3.3.6 Appendix B.

2.3.4 Flight Instructor Rating and Ground Instructor Authorization – Aeroplanes, Airships, Helicopters and Powered-lift

2.3.4.1 GENERAL

(a) *Applicability*. This section prescribes the requirements for the issuance of instructor ratings or authorisations, the conditions under which those ratings and authorisations are necessary, and the privileges and limitations of those ratings and authorisations.

(b) *Authorisation to conduct instruction.*

(1) No person shall carry out flight or ground instruction required for the issue of a pilot licence or rating unless that person has received proper authorisation from the Director-General, which authorisation shall comprise:

(i) an appropriate flight instructor rating on the person's pilot licence, or an appropriate ground instructor authorisation; or

(ii) the authority to act as an agent of a training organisation approved by the Director-General to carry out flight training; or

(iii)a specific authorization granted by the Director-General.

(2) No person shall carry out instruction on an FSTD required for the issue of a pilot licence or rating unless that person holds or has held an appropriate licence or has appropriate flight training and flight experience and has received proper authorisation from the Director-General.

2.3.4.2 FLIGHT INSTRUCTORS

(a) *Age*. The applicant for a flight instructor rating (FI) shall be not less than 18 years of age.

(b) *Knowledge*:

(1) The applicant for a FI rating shall have met the knowledge requirements for the issue of a CPL as appropriate to the category of aircraft included in the licence.

(2) In addition, the applicant for an FI rating shall receive and log ground training from an authorized instructor in at least the following areas:

(i) techniques of applied instruction;

(ii) assessment of student performance in those subjects in which ground instruction is given;

(iii)the learning process;

(iv)elements of effective teaching;

(v) student evaluation and testing, training philosophies;

(vi)training programme development;

(vii) lesson planning

(viii) classroom instructional techniques;

(ix)use of training aids including flight simulation training devices as appropriate;

(x) analysis and correction of student errors;

(xi)human performance relevant to flight instruction including principles of threat and error management;

(xii) hazards involved in simulating system failures and malfunctions in the aircraft; and

(xiii) principles of threat and error management

(3) The applicant shall have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training on the relevant knowledge subjects; and

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

(4) The applicant shall pass the required knowledge test on the knowledge subjects listed in item (2) above. This test may be combined with the skill test in paragraph (c) below.

(5) The holder of a FI rating, issued under these Requirements, applying for an additional FI rating is exempted from the requirements of this paragraph (b).

(c) *Skill.* The applicant for an FI rating:

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

(2) shall pass the required skill test by demonstrating, in the category and, if applicable, class and/or type of aircraft; or approved FSTD that is representative of the category and, if applicable, class and/or type of aircraft for which flight instructor privileges are sought, the ability to instruct in those areas in which flight instruction is to be given, including pre-flight, post-flight and ground instruction as appropriate.

(d) *Experience.*

(1) The applicant for a FI rating shall hold at least a commercial pilot licence with the aircraft category and, if applicable, class and/or type rating appropriate to the FI rating sought.

(2) For an instructor rating in the aeroplane and powered-lift categories, the applicant shall also hold an instrument rating.

(3) To instruct for an instrument rating, a FI shall hold an IR in the appropriate category of aircraft.

(e) *Flight Instruction.* The applicant for a FI rating shall, under the supervision of an instructor approved by the Director-General for that purpose

(1) have received instruction in flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(2) have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction listed in the relevant section in IS: 2.3.4.2, as applicable.

(f) *Privileges.* Subject to compliance with these Requirements,

(1) the privileges for the holder of a FI rating shall be:

(i) to supervise solo flights by student pilots;

(ii) to carry out flight instruction for the issue of a PPL,

(iii)to carry out flight instruction for the issue of a CPL, if he or she has completed 500 hrs of flight time and 200 hours of flight instruction;

(iv)to carry out flight instruction for the issue of a single-engine class rating if he or she has 15 hrs on the applicable type in the preceding 12 months;

(v) to carry out flight instruction for the issue of a multi-engine class rating if he or she has 500 hrs flight time and 15 hours on the applicable type in the preceding 12 months; and

(vi)to carry out flight instruction for the issue of an instructor rating, if he or she has completed 500 hours of instruction in the appropriate category.

(2) The applicant, in order to carry out instructions for the multi-crew pilot licence, shall have also met all the instructor qualifications requirements as detailed in Part II: Section 1, *Chapter 7 of the ICAO document*

"Procedures for Air Navigation Services — Training" (PANS-TRG, Doc 9868).

(g) *Instructor rating for additional type ratings:*

(1) Subject to compliance with this Subpart, pilots having experience in accordance with (3) below, may apply for an instructor rating for additional type ratings.

(2) Knowledge. The applicant for an instructor rating for additional type ratings:

(i) shall receive and log ground training from an authorized instructor on the subjects listed at Paragraph (b)(2) above;

(ii) shall have received an endorsement for the knowledge test from an authorized instructor who:

— conducted the training on the knowledge subjects; and

— certifies that the person is prepared for the required knowledge test; and

(iii) pass the required knowledge test on the subjects listed in item (i) above. This knowledge test may be combined with the skill test at item (5) below.

(iv) shall be exempted from this paragraph if the applicant holds an instructor rating.

(3) Experience: The applicant for an instructor rating for additional type ratings shall have completed:

(i) for single-pilot type rating instruction 500 hours of flight time as pilot-in-command

(ii) for multi-pilot type rating instruction 500 hours of flight time as pilot-in-command on multi-pilot aircraft of the appropriate category including 30 route sectors in the preceding 12 months of which 15 sectors may have been completed in a flight simulator.

(4) *Flight Instruction:* The applicant for an instructor rating for additional type ratings shall, under the supervision of an instructor approved by the Director-General for that purpose:

(i) have received instruction in instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

(ii) have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide instruction on the subjects listed in IS 2.3.4.2.8 for type rating instructor.

(5) *Skill.* The applicant shall have demonstrated in a skill test, in the category and in type of aircraft for which instructor privileges are sought, the ability to instruct in those areas in which instruction is to be given, including pre-flight, post-flight and ground instruction as appropriate on the subjects listed in IS 2.3.4.2.8 for type rating instructor.

(6) *Privileges.* Subject to compliance with these Requirements, the privileges of the holder of an instructor rating for additional type ratings are to carry out flight instruction for the issue of an additional type rating including CRM training in the appropriate category.

(h) *Instructor authorization for flight simulation training.*

(1) Notwithstanding the requirements of 2.3.4.1, former holders of professional pilot licences, having instructional experience can apply for an authorization to provide flight instruction in an FSTD, provided the applicant has at least 1 year experience as instructor in FSTDs.

(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 authorization privileges are sought, the ability to instruct in those areas in which ground instruction is to be given.

(3) *Privileges.* Subject to compliance with these Requirements, the privileges of the holder of an authorization are to carry out instruction in an FSTD for the issue of a class or type rating in the appropriate category of aircraft.

(i) *Validity.* Subject to compliance with these Requirements, the validity period of an instructor authorization for flight simulation training is 2 years.

(j) *Renewal.* A flight instructor rating that has not expired may be renewed for an additional 24 calendar months if the holder—

(1) Passes a skill test for—

(i) Renewal of the flight instructor rating; or

(ii) An additional flight instructor rating; or

(2) Presents to the Director-General —

(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, served as a company check pilot, chief flight instructor, company check airman, or flight instructor in a Commercial Airline Operation, or in a position involving the regular evaluation of pilots; or

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

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

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

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

(4) A flight instructor may accomplish the skill test required by this subsection in an approved course conducted by an ATO certified under the Requirements for ATO 2024.

(k) Re-issue. If the instructor rating or authorization has been expired the applicant shall:

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

(2) pass the required skill test on the subjects listed in the relevant section in IS 2.3.4.2 as applicable.

2.3.4.3 GROUND INSTRUCTOR AUTHORIZATION

(a) *Age*. The applicant for a Ground Instructor Authorization shall be at least 18 years of age.

(b) *Knowledge*. The applicant for a Ground Instructor Authorization shall:

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

(i) For a basic rating, the knowledge for a student and private pilot licence as listed in these Requirements;

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

(iii) For an instrument rating, the knowledge for the instrument rating as listed in these Requirements.

(2) Meet the requirements of for fundamentals of knowledge instructing as listed in 2.3.4.2(b).

(c) *Privileges*. The holder of a Ground Instructor Authorization may exercise the privileges appropriate to the rating(s) held.

(1) A person who holds a Ground Instructor Authorization with a basic rating is authorised to provide—

(i) Ground training in the aeronautical knowledge areas required for the issue or re-issue of a student pilot authorisation;

(ii) Ground training required for issue, re-issue or renewal of a private pilot licence; and

(iii) A recommendation for a knowledge test required for the issue re-issue or renewal of a private pilot licence.

(2) A person who holds a Ground Instructor Authorization with an advanced rating is authorised to provide—

(i) Ground training in the aeronautical knowledge areas required for the issue, re-issue or renewal of any licence or rating; and

(iii) A recommendation for a knowledge test required for the issue, re-issue or renewal of any licence or rating.

(3) A person who holds an instrument Ground Instructor Authorization is authorised to provide—

(i) Ground training in the aeronautical knowledge areas required for the issue, re-issue or renewal of an instrument rating;

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

(iii) A recommendation for a knowledge test required for the issue, re-issue or renewal of an instrument rating.

(4) A person who holds a Ground Instructor Authorization is authorised, within the limitations of the Authorization and the ratings included, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in (1) through (3) of this subsection.

(d) *Currency Requirements.*

(1) The holder of a Ground Instructor Authorization may not perform the duties of a ground instructor unless, within the preceding 12 months—

(i) The person has served for at least 3 months as a ground instructor; or

(ii) The person has received an endorsement from an authorised ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in these Requirements for the authorisation and ratings; and

(iii)The person has reviewed all recent amendments to the Civil Aviation Regulations and Requirements pertinent to the course that he/she will be teaching.

2.3.5 Flight Test Examiners

(a) *General Requirements.* An applicant for a flight test examiner designation shall:

(1) hold at least the licence and the rating for which examining authority is sought;

(2) hold the privilege to instruct for this licence or rating or be serving in a comparable position as an air operator check pilot or comparable position in an ATO;

(3) have a reputation for integrity and honesty in the industry and the community;

(4) have a good record as a pilot and flight instructor with regard to accidents, incidence and violations; and

(5) have a pilot licence and instructor rating that have never been revoked for falsification or forgery.

(b) *Experience.* The applicant for the flight test examiner designation shall have the experience stipulated in the Designated Flight Test Examiner Manual published by the Director-General for which the designation is sought.

(c) *Training.* The ground, flight and simulator training for Examiners shall include the subjects listed in IS 2.3.5. The Director-General may accept an approved check airman course to satisfy the training requirement for flight test examiner designation.

(d) *Skill test.* The applicant for a flight test examiner designation shall have conducted at least one monitored skill test in the role of an examiner for which designation is sought in accordance with the Designated Flight Test Examiner Manual.

(e) *Privileges.* Subject to compliance with these Requirements, the privileges of the flight test examiner's designation are to conduct skill tests and proficiency checks for a licence and rating(s) as specified in the designation letter.

(f) *Validity.* Subject to compliance with these Requirements, the validity period of an examiner's authorization is 2 years. Renewal will be at the discretion of the Guyana Civil Aviation Director-General.

(g) *Reduction in requirements.* The Director-General may authorise reductions in the requirements for examiner authorisation and /or waive certain portions of the training and test requirements taking into account the overall experience and qualifications of the applicant, provided that a request is made in writing by or on behalf of the applicant and the basis under which the request is made is clearly outlined.

2.3.6 Remote Pilot Licence

2.3.6.1 GENERAL REQUIREMENTS

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

(b) Medical Fitness. The applicant for an RPL shall hold a current Class 3 medical certificate or a current Class 1 medical certificate.

Note: A Class 1 medical certificate may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.

(c) Knowledge Areas. The applicant for an RPL shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of an RPL and appropriate to the category of RPA and associated RPS intended to be included in the RPL, in at least the following subjects:

(1) Air Law:

(i) Rules and regulations relevant to the holder of an RPL; rules of the air; appropriate ATS practices and procedures.

(ii) Rules and regulations relevant to flight under IFR; related ATS practices and procedures.

(2) General RPAS Knowledge:

(i) Principles of operation and functioning of engines, systems, and instruments;

(ii) Operating limitations of the relevant category of RPA and engines; relevant operational information from the flight manual or other appropriate document;

(iii) Use and serviceability checks of equipment and systems of appropriate RPA;

(iv) Maintenance procedures for airframes, systems, and engines of appropriate RPA;

(v) For rotorcraft and powered-lift, transmission (power-trains), where

applicable;

(vi) Use, limitation, and serviceability of avionics, electronic devices, and instruments necessary for the control and navigation of an RPA under IFR and in IMC;

(vii) Flight instruments; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

(viii) For airships, physical properties and practical application of gases;

(ix) RPS general knowledge:

(A) Principles of operation and function of systems and instruments;

(B) Use and serviceability checks of equipment and systems of appropriate RPS;

(C) Procedures in the event of malfunctions.

(x) C2 link general knowledge:

(A) Different types of C2 links and their operating characteristics and limitations;

(B) Use and serviceability checks of C2 link systems;

(C) Procedures in the event of C2 link malfunction.

(xi) Detect and avoid capabilities for RPAS.

(3) Flight performance, planning and loading.

(i) Effects of loading and mass distribution on RPA handling, flight characteristics, and performance; mass and balance calculations;

(ii) Use and practical application of take-off or launching, landing, and other performance data;

(iii) Pre-flight and en route flight planning appropriate to RPAS operations under IFR; preparation and submission of ATS flight plans under IFR; appropriate ATS procedures; altimeter setting procedures;

(iv) In the case of airships, rotorcraft, and powered-lifts, effects of external loading on handling.

(4) Human performance.

(i) Human performance relevant to RPA and instrument flight, including principles of threat and error management.

(5) Meteorology.

(i) Interpretation and application of aeronautical meteorological reports, charts, and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;

(ii) Aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect on aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route, and landing conditions;

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

(iv) In the case of rotorcraft and powered-lifts, effects of rotor icing;

(v) In the case of high-altitude operations, practical high-altitude meteorology, including interpretation and use of weather reports, charts, and forecasts; jet streams;

(6) Navigation.

(i) Air navigation, including the use of aeronautical charts, instruments, and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of RPAS equipment;

(ii) Use, limitation, and serviceability of avionics and instruments necessary for control and navigation;

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

(iv) Principles and characteristics of self-contained and external-referenced navigation systems; operation of RPAS equipment.

(7) Operational Procedures.

(i) Application of threat and error management to operational performance;

(ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en route, descent, and approach;

(iii) Altimeter setting procedures;

(iv) Appropriate precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;

(v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods and their management;

(vi) Requirements and practices for safety briefings to remote flight crew members;

(vii) In the case of rotorcraft and, if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

(viii) Operational procedures for handovers and coordination; and

(ix) Operational procedures for normal and abnormal C2 link operations.

(8) Principles of flight.

(i) Principles of flight.

(9) Radio telephony.

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

(d) *Skill*

(1) The applicant for an RPL shall have demonstrated all the competencies of the adapted competency model approved by the Director-General at the level required, to act as remote PIC of an RPAS operation within the appropriate category of RPA and associated RPS.

(2) If the privileges of the RP are to be exercised on a multi-engined RPA, the applicant shall have demonstrated the ability to operate under IFR with degraded propulsion capabilities.

2.3.6.2 EXPERIENCE, FLIGHT INSTRUCTION, AND SKILL TEST FOR THE REMOTE PILOT LICENCE

(a) *Experience.* The applicant for an RPL shall have gained experience during training in operating the RPA and associated RPS to successfully demonstrate the competencies required in 2.3.6.14 of these Requirements.

(b) RPL Training.

(1) In order to meet the requirements of the RPL, the applicant shall have completed an approved training course. The training shall be competency based and, if applicable, conducted in a multi-crew operational environment.

(2) During the training, the applicant for an RPL shall have acquired the competencies and underpinning skills required for performing as an RP of an RPA certificated for operation under IFR.

(3) The applicant for an RPL shall have received dual RPL training in an RPA and associated RPS, sought from an authorised RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in all phases of flight and the entire operating envelope of an RPAS, including abnormal and emergency conditions, upset prevention and recovery training for the categories concerned, and IFR operations.

(4) If the privileges of the RP are to be exercised on a multi-engined RPA, the applicant shall have received dual instrument RPL training in a multi-engined RPA within the appropriate category from an authorised RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in the operation of the RPA within the appropriate category with engines inoperative or simulated inoperative.

2.3.6.3 GENERAL LICENSING SPECIFICATIONS

(a) A person shall not act either as remote PIC or as remote CP of an RPA in any of the following RPA categories unless that person is the holder of an RPL issued in accordance with the provisions of these Requirements:

(1) Aeroplane

(2) Airship

(3) Glider

(4) Rotorcraft Powered-lift

(5) Free balloon

(b) The category of RPA shall be endorsed as a category rating on the RPL.

(c) The applicant for an RPL shall, before being issued with any RPL or rating, meet such requirements with respect to age, experience, flight instruction, competencies, and medical fitness as are specified for that RPL or rating.

(d) The applicant for any RPL or rating shall demonstrate, in a manner determined by the Director-General, such requirements for knowledge and skill as are specified for that RPL or rating.

(e) RPLs shall be validated or converted in accordance with these Requirements.

2.3.6.4 CATEGORY RATINGS

(a) Category ratings shall be for categories of RPA listed in 2.3.6.3 of these Requirements.

(b) The holder of an RPL seeking additional category ratings to be added to the existing licence shall meet the requirements regarding RPAS appropriate to the privileges for which the category rating is sought.

2.3.6.5 CLASS AND TYPE RATINGS

(a) A class rating shall be issued for RPA and associated RPS certificated for single-RP operation which have comparable handling, performance, and characteristics, except where a type rating is considered necessary by the Director-General.

(b) A type rating shall be established for RPA and associated RPS certificated for operation with a minimum crew of at least two RPs or when considered necessary by the Director-General, and a common type rating may be established for RPA with similar characteristics in terms of operating procedures, systems and handling.

(c) When an applicant for an RPL demonstrates competencies for the initial issue of an RPL, the category and ratings appropriate to the class or type of RPA and associated RPS used in the demonstration shall be entered on that RPL.

(d) The levels of performance to be achieved to operate the class or type of RPA for which the ratings are issued shall be publicly available.

2.3.6.6 CIRCUMSTANCES IN WHICH CLASS AND TYPE RATINGS ARE REQUIRED

(a) The holder of an RPL issued by the Director-General shall not act either as remote PIC or as remote CP of an RPA and associated RPS unless the holder has received authorisation as follows:

(1) The appropriate class rating specified in paragraph 2.3.6.5(a) of these Requirements; or

(2) A type rating when required in accordance with the provisions of paragraph 2.3.5.5(b) of these Requirements.

(b) When a type rating is issued limiting the privileges to act as remote CP or limiting the privileges to act as RP only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

(c) When a class rating is issued limiting the privileges to act as RP only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

(d) For the purpose of training, testing, or specific special-purpose non-revenue flights, special authorisation may be provided in writing to the RPL holder by the Director-General in place of issuing the class or type rating in accordance with paragraph 2.3.11.6(a) of this subsection. This authorisation shall be limited in validity to the time needed to complete the specific flight.

2.3.6.7 REQUIREMENTS FOR THE ISSUE OF CLASS AND TYPE RATINGS

(a) The applicant for an RPL shall have demonstrated the competencies required for the safe operation of an RPA of the class for which the rating is sought.

(b) *Type rating as required by 2.3.6.5 of these Requirements.*

(1) The applicant for an RPL shall have:

(i) Gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or FSTD in the following:

(A) Normal flight procedures and manoeuvres during all phases of flight:

(B) Abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 link, systems, and airframe;

(C) Instrument procedures, including instrument approach, missed approach, and landing procedures under normal, abnormal, and emergency conditions, including simulated engine failure;

(D) For the issue of an aeroplane category type rating, upset prevention and recovery training; and

(E) Procedures for crew incapacitation and crew coordination, including allocation of RP tasks; crew cooperation and use of checklists

(ii) Demonstrated the competencies required for the safe operation of the applicable type of RPA and associated RPS and shall have demonstrated C2 link management skills relevant to the duties of a remote PIC or a remote CP, as applicable.

2.3.6.8 USE OF AN FSTD FOR ACQUISITION OF EXPERIENCE AND DEMONSTRATION OF COMPETENCIES

(a) The use of an FSTD for acquiring the required experience or performing any manoeuvre required during the demonstration of competencies for the issue of an RPL or rating shall be approved by the Director-General, who will ensure that the FSTD used is appropriate to the task.

(b) No person to carry out instruction on an FSTD 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 Director-General.

2.3.6.9 CIRCUMSTANCES IN WHICH AUTHORISATION TO CONDUCT RPL TRAINING IS REQUIRED

(a) The holder of an RPL issued by the Director-General shall not carry out RPL training required for the issue of an RPL or rating unless such holder has received proper authorisation from the Director-General. Proper authorisation shall comprise:

(1) An RPAS instructor rating on the holder's RPL; or

(2) The authority to act as an agent of an ATO authorised by the Director-General to carry out RPL training; or

(3) A specific authorisation granted by the Director-General.

(b) No person shall carry out RPL training on an FSTD required for the issue of an RPL or rating unless such person holds or has held an appropriate RPL or has appropriate RPAS training and flight experience and has received proper authorisation from the Director-General.

2.3.6.10 CREDITING OF RPAS FLIGHT TIME

(a) A student RP shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for the initial issue of an RPL.

(b) The holder of an RPL shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(c) The holder of an RPL shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

(d) The holder of an RPL, when acting as remote CP of an RPA certificated for operation by a single RP, but required by the Director-General to be operated with a remote CP,

shall be entitled to be credited with not more than 50 per cent of the remote CP RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade. RPAS flight time will be credited in full towards the total RPAS flight time required if the RPAS is equipped to be operated by a remote CP and is operated in a multi-crew operation.

(e) The holder of an RPL, when acting as remote CP of an RPA certificated to be operated with a remote CP, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade

(f) The holder of an RPL, when acting as remote PIC under supervision, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote PIC upgrade.

(g) When applying for a new rating, the holder of an RPL shall be entitled to be credited with RPAS flight time experience as an RP of RPA. The Director-General will determine whether such experience is acceptable and, if so, the extent to which the experience requirements for the issue of a rating can be reduced accordingly.

Note: The total RPAS flight time required is derived from the approved competency-based training programme.

2.3.6.11 LIMITATION OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 60TH BIRTHDAY AND CURTAILMENT OF PRIVILEGES OF REMOTE PILOTS WHO ATTAIN THEIR 65TH BIRTHDAY

(a) The holder of an RPL issued by the Director-General shall not act as pilot of an RPAS engaged in international commercial air transport operations if that RP has attained his or her 60th birthday or, in the case of operations with more than one pilot, his or her 65th birthday

2.3.6.12 PRIVILEGES OF THE HOLDER OF THE REMOTE PILOT LICENCE AND THE CONDITIONS TO BE OBSERVED IN EXERCISING SUCH PRIVILEGES

(a) Subject to compliance with the requirements specified in 2.3.6.4 and 2.3.6.5, the privileges of the holder of an RPL shall be:

(1) To act as remote PIC of an RPA and associated RPS, certificated for remote single-pilot operation;

(2) To act as remote CP of an RPA and associated RPS, required to be operated with a remote CP;

(3) To act as a remote PIC of an RPA and the associated RPS, required to be operated with a remote CP; and

(4) To act either as remote PIC or as remote CP of an RPAS under IFR.

(b) Before exercising the privileges at night, the remote pilot licence holder shall have received dual instruction in an RPA and associated RPS in night flying, including take-off, landing and navigation.

2.3.6.13 STUDENT REMOTE PILOT

(a) A student RP shall meet all requirements prescribed by the Director-General. (In prescribing such requirements, the Director-General will ensure that the privileges granted would not permit student RPS to constitute a hazard to air navigation)

(b) A student RP shall not fly an RPA solo unless under the supervision of, or with the authority of, an authorised RPAS instructor.

(c) A student RP shall not fly an RPA solo on international RPAS operations without written permission from the Director-General under arrangements with the other States concerned.

(d) MEDICAL FITNESS. A student RP shall not fly an RPA solo unless that student holds a current Class 3 medical certificate; or a current Class 1 medical certificate when so prescribed by the Director-General.

Note: A Class 1 medical certificate may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.

2.3.6.14 REQUIREMENTS FOR ISSUE OF RPAS INSTRUCTOR RATING

(a) KNOWLEDGE

(1) The applicant shall demonstrate the ability to effectively assess trainees against the adapted competency model used in the approved training programme.

(2) The applicant shall successfully complete the training and meet the qualifications of an ATO appropriate to the delivery of competency-based training programmes.

(3) The RPAS instructor training programme shall focus on the development of competence in the following specific areas:

(i) The adapted competency model of the RP training programme according to the defined grading system used by the RPAS operator or ATO.

(ii) In accordance with the assessment and grading system of the RPAS operator or ATO, making assessments by observing behaviours; gathering objective evidence regarding the observable behaviours of the adapted competency model used.

(iii) Recognising and highlighting performance that meets competency standards.

(iv) Determining root causes for deviations below the expected standards of performance; and

(v) Identifying situations that could result in unacceptable reductions in safety margins.

(4) The applicant shall have met the competency requirements for the issue of an RPL as appropriate to the category of RPA and associated RPS.

(5) In addition, the applicant shall have demonstrated a level of competency appropriate to the privileges granted to the holder of an RPAS instructor rating, in at least the following areas:

(i) Techniques of applied instruction.

(ii) Assessment of student performance in those subjects in which ground instruction is given

(iii) The learning process

(iv) Elements of effective teaching

(v) Competency-based training principles, including student assessments

(vi) Evaluation of the training programme effectiveness

(vii) Lesson planning

(viii) Classroom instructional techniques

(ix) Use of training aids, including FSTDs, as appropriate

(x) Analysis and correction of student errors

(xi) Human performance relevant to RPAS, instrument, flight, and RPL training, including principles of threat and error management; and

(xii) Hazards involved in simulating system failures and malfunctions in the aircraft.

(b) SKILL

(1) The applicant shall have successfully performed a formal competency assessment, prior to conducting instruction and assessment within a competency-based training programme.

(2) The competency assessment shall be conducted during a practical training session in the category of RPA and associated RPS for which RPAS instructor privileges are sought, including pre-flight, post-flight, and ground instruction, as appropriate.

(3) The competency assessment shall be conducted by a person authorised by the Director-General.

(c) EXPERIENCE.

(1) The applicant shall have met the requirements for the issue of an RPL, shall maintain competencies, and shall meet the recent experience requirements for the licence.

(2) The applicant shall have sufficient training and experience to attain the required level of proficiency in all the required tasks, manoeuvres, operations and principles, and methods of instruction relevant to 2.3.6.2(b).

(d) RPL TRAINING

The applicant shall, under the supervision of an RPAS instructor authorised by the Director-General for that purpose:

(1) Have received training in RPAS instructional techniques including demonstration, student practices, recognition and correction of common student errors; and

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

2.3.6.15 PRIVILEGES OF THE HOLDER OF THE INSTRUCTOR RATING AND THE CONDITIONS TO BE OBSERVED

(a) Subject to compliance with the requirements regarding validity of licences and the general rules concerning RPL and ratings specified in these Requirements, the privileges of the holder of an RPAS instructor rating shall be:

(1) To supervise solo flights by student RPs; and

(2) To carry out RPL training for the issue of an RPL and an RPAS instructor rating, provided that the RPAS instructor:

(i) Holds at least the RPL and rating for which instruction is being given, in the appropriate RPA category and associated RPS;

(ii) Holds the RPL and rating necessary to act as the remote PIC of the RPA category and associated RPS on which the instruction is given; and

(iii) Has the RPAS instructor privileges granted endorsed on the RPL.

(b) The applicant, in order to carry out RPL training in a multi-crew operational environment, shall have also met all the instructor qualification requirements

2.4 FLIGHT ENGINEER LICENCE AND RATINGS

2.4.1 Applicability

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

2.4.2 General

(a) A person shall not act as a flight engineer of an aircraft registered in Guyana unless a valid licence or a validation certificate is held showing compliance with the specifications of these Requirements, and appropriate to the duties to be performed by that person.

(b) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the licence holder by the Director-General in place of issuing the class or type rating in accordance with these Requirements. This authorization will be limited in validity to the time needed to complete the specific flight.

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

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

2.4.3 Flight Engineer Licence

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

(b) *Knowledge*. The applicant for a flight engineer licence shall receive and log ground training from an authorized instructor on the following subjects:

(1) Air law:

(i) rules and regulations relevant to the holder of a flight engineer licence; rules and regulations governing the operation of civil aircraft pertinent to the duties of a flight engineer;

(2) Aircraft general knowledge:

(i) basic principles of powerplants; gas turbines and/or piston engines; characteristics of fuels; fuel systems including fuel control; lubricants and lubrication systems; afterburners and injection systems, function and operation of engine ignition and starter systems;

(ii) principles of operation; handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance;

(iii) airframes; flight controls; structures; wheel assemblies; brakes and anti-skid units; corrosion and fatigue life; identification of structural damage and defects;

(iv) ice and rain protection systems;

(v) pressurization and air-conditioning systems; oxygen systems;

(vi) hydraulic and pneumatic systems;

(vii) basic electrical theory, electric systems (AC and DC); aircraft wiring systems; bonding and screening;

(viii) principles of operation of instruments, compasses, autopilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics;

(ix) limitations of appropriate aircraft;

(x) fire protection, detection, suppression and extinguishing systems;

(xi) use and serviceability checks of equipment and systems of appropriate aircraft;

(3) Flight performance and planning:

(i) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(ii) use and practical application of performance data including procedures for cruise control;

(4) Human performance:

(i) human performance relevant to the flight engineer

(ii) principles of threat and error management;

(5) Navigation:

(i) fundamentals of navigation; and

(ii) principles and operation of self-contained systems;

(6) Meteorology:

(i) operational aspects of meteorology;

(7) 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;

(8) Principles of flight:

(i) fundamentals of aerodynamics;

(9) Radiotelephony:

(i) communication procedures and phraseology;

(c) *Knowledge Testing.* The applicant for a flight engineer licence shall:

(1) have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training on the knowledge subjects listed in item (b) above;

(ii) certifies that the person is prepared for the required knowledge test; and

(2) pass the required knowledge test.

(d) *Experience.*

(1) The applicant for a flight engineer licence shall have completed under the supervision of a person accepted by the Director-General 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 an approved flight simulation training device.

(2) The holder of a pilot licence may be credited with 30 hours towards the 100 hours of flight time.

(3) The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the Director-General for that purpose, in at least the following areas:

(i) Normal procedures:

— pre-flight inspections

— fuelling procedures, fuel management

— inspection of maintenance documents

— normal flight deck procedures during all phases of flight

— crew coordination and procedures in case of crew incapacitation

— defect reporting

(ii) Abnormal and alternate (standby) procedures:

— recognition of abnormal functioning of aircraft systems

— use of abnormal and alternate (standby) procedures

(iii)Emergency procedures:

— recognition of emergency conditions

— use of appropriate emergency procedures

as further specified in IS 2.4.3.

(4) The applicant shall have completed a CRM course as listed in IS 2.3.2.4 Appendix B.

(e) *Skill.*

(1) The applicant for a flight engineer licence shall have received an endorsement from an authorized instructor who certifies that the person is prepared for the required skill test; and

(2) The applicant for a flight engineer licence shall have demonstrated by passing the required skill test, the ability to perform as flight engineer of an aircraft, the duties and procedures described in paragraph (d)(3) above with a degree of competency appropriate to the privileges granted to the holder of a flight engineer licence, and to

(i) recognize and manage threats and errors;

(ii) use aircraft systems within the aircraft's capabilities and limitations;

(iii)exercise good judgement and airmanship;

(iv)apply aeronautical knowledge;

(v) perform all the duties as part of an integrated crew with the successful outcome assured; and

(vi)communicate effectively with the other flight crew members.

(3) The use of an FSTD for performing any of the procedures required during the demonstration of skill described in 2.4.3(e)(2) shall be approved by the Director-General, who shall ensure that the FSTD is appropriate to the task.

(f) Medical fitness. The applicant for a flight engineer licence shall hold a current Class 2 medical certificate.

(g) Privileges. Subject to compliance with the requirements specified in these Requirements, the privileges of the holder of a flight engineer licence shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill, on the basis of those requirements specified in paragraphs (c) and (e) above which are applicable to the safe operation of that type of aircraft.

2.4.4 Flight Engineer Type Rating

(a) *Knowledge.* The applicant for a type rating shall have completed the theoretical knowledge instruction and demonstrated by passing a knowledge test on the knowledge subjects as listed in IS 2.3.2.4 Appendix A.

(b) *Experience.* The applicant for a type rating shall:

(1) have at least 100 hours flight time in the performance of the duties of a flight engineer; and

(2) have completed a CRM course as listed in IS 2.3.2.4 Appendix B.

(c) *Flight instruction.* The applicant for a type rating shall have completed the flight instruction for the type rating on the subjects listed in IS 2.4.4.

(d) *Skill.* The applicant for a type rating shall:

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

(2) pass the required skill test on the subjects listed in IS 2.4.3.

(e) *Privileges.* Subject to compliance with these Requirements, the privileges of the holder of a type rating are to act as flight engineer on the type of aircraft entered on the licence.

(f) *Validity.* Subject to compliance with these Requirements, the validity period of a type rating is 1 year.

(g) *Renewal.* For the renewal of a type rating the flight engineer shall:

(1) within the preceding 12 calendar months complete a proficiency check on the subjects as listed in IS 2.4.4 ; and

(2) have completed 10 route sectors.

(3) If a flight engineer 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 flight engineer 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.

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

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

(2) pass the required skill test on the subjects listed in IS 2.4.4.

2.5 RESERVED

2.6 AIRCRAFT MAINTENANCE LICENCING

2.6.1 General

2.6.2 Aircraft Maintenance Engineer

2.6.2.1 APPLICABILITY

This Subpart prescribes the requirements for issuance of an AME licence and associated ratings and/or authorisations.

2.6.2.2 ELIGIBILITY REQUIREMENTS: GENERAL

(a) An applicant for an AME licence and any associated rating shall—

(1) Be at least 18 years of age;

(2) Demonstrate the ability to read, write, speak, and understand the English language by reading and explaining appropriate maintenance publications and by writing defect and repair statements;

(3) Comply with the knowledge, experience, and competency requirements prescribed for the licence and rating sought; and

(4) Pass all of the prescribed tests for the licence and rating sought, within a period of 24 months.

(b) A licenced AME who applies for an additional rating must meet the requirements of 2.6.2.6 and, within a period of 24 months, pass the tests prescribed by 2.6.2.5 and 2.6.2.7 for the additional rating sought.

2.6.2.3 RATINGS

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

(1) Airframe.

(2) Powerplant.

(3) Avionics

(4) Other ratings as may be determined by the Director-General.

2.6.2.4 KNOWLEDGE REQUIREMENTS FOR THE AME LICENCE.

(a) The applicant for an aircraft maintenance technician/engineer/mechanic licence shall have pass a knowledge test covering at least the following areas:

(1) Air law and airworthiness requirements:

(i) rules and regulations relevant to an aircraft maintenance technician licence holder including applicable airworthiness requirements governing certification and continuing airworthiness of aircraft and approved aircraft maintenance organisation procedures;

(2) Natural science and aircraft general knowledge

(i) basic mathematics; units of measurement; fundamental principles and theory of physics and chemistry applicable to aircraft maintenance;

(3) Aircraft engineering

(i) characteristics and applications of the materials of aircraft construction including principles of construction and functioning of aircraft structures, fastening techniques; powerplants and their associated systems; mechanical ,fluid, electrical and electronic power sources; aircraft instrument and display systems; aircraft control systems; and airborne navigation and communication systems;

(4) Aircraft maintenance :

(i) tasks required to ensure the continuing airworthiness of an aircraft including methods and procedures for the overhaul, repair, inspection, replacement, modification or defect rectification of aircraft structures, components and systems in accordance with the methods prescribed in the relevant Maintenance Manuals and the applicable requirements of airworthiness;

(5) Human performance:

(i) human performance and limitations relevant to the duties of an aircraft maintenance licence holder;

2.6.2.5 KNOWLEDGE REQUIREMENTS FOR THE RATINGS

(a) The applicant for an airframe rating shall pass a knowledge test covering at least the following areas:

(1) Airframe Maintenance practices and materials

(2) Airframe systems and structures-fixed wing

(3) Airframe systems and structures-rotary wing

(4) Airship systems and structures

(5) RPAS

(b) The applicant for a powerplant rating shall pass a knowledge test covering at least the following areas:

(1) Piston engines

(2) Propellers

(3) Gas turbine engines

(4) Fuel systems

(5) RPAS

(c) The applicant for an avionics rating shall pass a knowledge test covering at least the following areas:

(1) Aircraft electrical systems

(2) Aircraft instrument systems

(3) Automatic flight control systems

(4) Aircraft radio and radio navigation systems

(5) RPAS

(d) The applicant shall pass each section of the test before applying for the oral and practical tests prescribed by 2.6.2.7.

2.6.2.6 EXPERIENCE REQUIREMENTS

An applicant for an AME licence and associated ratings may qualify by either practical experience or through training in an ATO.

(a) *Practical experience*. Each applicant for an AME licence and rating(s) relying on practical experience shall provide documentary evidence, acceptable to the Director-General, of the following experience in the inspection, servicing and maintenance of aircraft or its components—

(1) Airframe and Powerplant ratings – 48 months;

(2) Avionics rating – 36 months;

(3) Airframe, Powerplant and Avionics ratings – 60 months.

(b) *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 Director-General, of the following training:

(1) Airframe and Powerplant ratings – 36 months

(2) Avionics rating– 24 months in an ATO, plus 12 months practical work experience.

(3) Airframe, Powerplant and Avionics ratings – 42 months in an ATO, plus 12 months practical work experience.

2.6.2.7 SKILL REQUIREMENTS

(a) Each applicant for an AME licence or rating must pass an oral and a skill test on the licence or rating he seeks. The tests cover the applicant's basic skill in performing practical projects on the subjects covered by the written test for the licence or rating and shall contain at least the subjects in the Implementing Standard 2.6.2.7. appropriate to the licence or rating sought.

(b) In lieu of the practical skills test required in 2.6.2.7 (a), an applicant may be tested orally on the performance of maintenance tasks and repairs carried out on aircraft and components of aircraft. The applicant must have submitted worksheets certified by an appropriately licensed AME showing that they have satisfactorily completed under supervision, the maintenance tasks and repairs required by the Director-General. This oral examination in lieu of the practical skills test will be conducted by an

Airworthiness Inspector/Examiner of the Authority, or an external AME Examiner authorised by the Director-General.

2.6.2.8 PRIVILEGES AND LIMITATIONS

(a) *General.*

(1) The primary function of an AME is to certify for the completion of maintenance tasks performed on aeronautical products or components of the type indicated on the licence. This may take the form of a Certificate of Release to Service (CRS), a Maintenance Release, a Duplicate Inspection, a Certificate of Fitness for Flight, or a Certificate of Maintenance Review as defined in the Aircraft Maintenance Engineer Licensing Standards Manual published by the Director-General.

(2) The privileges of the holder of an aircraft maintenance licence specified in 2.6.2.8 (a) (1) shall be exercised only in respect of such:

i) aircraft as are entered on the licence in their entirety either specifically or under broad categories; or

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.

(3) Only an individual holding a valid, current and appropriately type-rated AME Licence or a person authorised by an AMO in accordance with these Requirements may exercise certification privileges with respect to the completion of the tasks listed in (1) above.

(4) Non-licenced certifying personnel appointed by an approved maintenance organisation to exercise certification privileges as granted by an aircraft maintenance engineer licence shall meet the relevant requirements specified in these Requirements.

(b) *Responsibilities and limitations.*

(1) The holder of a type-rated licence may only issue certifications as defined in these Requirements and in the Aircraft Maintenance Engineer Licensing Standards Manual published by the Director-General. Certification is restricted to repairs, replacements, modifications, mandatory inspections, scheduled or unscheduled maintenance inspections, or any other tasks as described in the Aircraft Manufacturer's Maintenance or Service Manuals, FAA Advisory Circular AC43.13 –1B/2A as amended, or the equivalent publication issued by the European Aviation Safety Agency (EASA) or Transport Canada. When making these certifications, the holder of a type-rated licence is responsible for the **Condition, Assembly, Installation and Functioning**, of all parts of the airframe, powerplant, or avionics system, as applicable, affected by the work carried out.

(2) The holder of a "M" or "R" Licence with airframe type ratings may not issue a Maintenance Release, or Certificate of Release to Service in respect of an airframe or component where work has been done involving the repair, replacement or modification by riveting, bonding, welding or laminating, or the manufacture of :

(i) a fuselage longeron (stringer), or frame;

(ii) a box or truss beam, wing stringer or chord member, wing main rib, or spar;

(iii)a seat support brace or bracket;

(iv)an engine mount assembly or part thereof;

(v) repairs to fibre-reinforced plastic/opoxy primary structures;

(vi)covering of a complete fuselage or airfoil with cotton, linen, polyester or glass-fibre fabric;

(vii) disturbing of individual parts of units which are supplied as bench-tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service where subsequent functioning may be proved without the use of test apparatus used for normal functioning checks;

(viii) repairs to any surface, of damage extending more than six inches (6") in length in any direction, where the surface is subject to pressurization loads;

(ix)any repair to aircraft skin, whether or not subject to pressurization loads, where the use of a support, jig or fixture is required.

(3) The holder of a "M" or "R" Licence with powerplant type ratings may not issue a CRS for:

(i) repairs to a wooden or composite bladed propeller;

(ii) re-assembly of the crankcase of a reciprocating engine;

(iii)overhaul or re-assembly of a turbine engine or turbine engine module;

(iv)repairs to a propeller that is beyond the limits recommended in the manufacturer's maintenance manual or service instructions;

(v) re-assembly of a controllable pitch or variable-pitch propeller;

(vi)an engine mount assembly or part thereof.

(4) The holder of a Category "M" Licence may issue CRS in relation to aircraft for which the Licence is Type-Rated, for the replacement of instruments, and the replacement of such parts in the electrical, automatic pilot and radio systems:

(i) as are included in the syllabus for the approved type course attended;

(ii) that do not require the use of specialised test equipment; and

(iii)that can be tested using aircraft systems on the ground.

Note: — The multi-meter (AVO), when used for continuity checks and to confirm voltage, but not for adjustments or specific readings, and the Pitot-Static test set when used for leak testing only, are not considered specialised test equipment and may be used by an AME. However, the AME must first have been trained in the use of the specific Pitot-Static test set.)

(5) The holder of an "E" Licence may issue a Maintenance Release for work carried out on any aircraft system covered under the group or groups for which his or her licence is endorsed, provided that for a fixed-wing aircraft, it has a an MCTOM of 5700 kg or less, and for a rotary wing aircraft, an MCTOM of 2730 kg or less. For a fixed wing aircraft with an MCTOM of more than 5700 kg (or 2730 kg for a rotorcraft), the holder of an "E" Licence must have received a type endorsement course on that aircraft prior to making any certification. The licence holder must retain documentary proof of the successful completion of each endorsement course in his training records. Certification privilege for an "E" licence is limited to the removal and replacement of components, system testing, trouble shooting, repairs to wiring, connectors or installations, as well as any calibration or

adjustment described in the Aircraft Maintenance Manual. The holder is not allowed to open any component, or to carry out any repair to a component, unless the procedure to be carried out is specifically defined in the Aircraft Maintenance Manual.

(6) The licence holder shall be 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.

2.6.2.9 RECENT EXPERIENCE REQUIREMENTS

(a) A licenced AME may not exercise the privileges of his/her licence or rating unless, within the preceding 24 months—

(1) the Director-General has found that he/she is able to do that work; or

(2) for at least 6 months within the preceding 24 months—

(i) Served as an AME under his/her licence and rating;

(ii) Technically supervised other AMEs;

(iii)Provided aviation maintenance instruction or served as the direct supervisor of persons providing aviation maintenance instruction for an AME course or program acceptable to the Director-General;

(iv)Supervised the maintenance, preventive maintenance, or alteration of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof; or b

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

2.6.2.10 DISPLAY OF LICENCE

Each person who holds an AME licence shall keep it within the immediate area where he/she normally exercises the privileges of the licence and shall present it for

inspection upon the request of the Director-General or an authorised representative of the Director General.

2.6.3 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges for RPAS

(a) No person may exercise the privileges of an aircraft maintenance licence specified in paragraph 2.6.2.8 of this subsection for RPAS unless that person is:

(1) A licenced AME and either:

(i) RPA or RPS are entered on the licence either specifically or under broad categories; or

(ii) RPAS and associated C2 link 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; or

(2) A non-licenced certifying personnel appointed by an Approved Maintenance Organisation with appropriate authorisation from the Director-General, who meets the relevant requirements specified in 2.6. of these Requirements.

2.7 AIR TRAFFIC CONTROLLER LICENCES, CATEGORIES AND RATINGS

2.7.1 APPLICABILITY

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

2.7.2 GENERAL

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

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

2.7.3 STUDENT AIR TRAFFIC CONTROLLER

(a) Student air traffic controllers shall not provide air traffic control service in any air traffic control unit except under the direct supervision of an appropriately rated and licenced or authorised air traffic controller.

(b) Student air traffic controllers shall hold a current Class 3 medical assessment when receiving instruction in an operational environment.

(c) Student air traffic controllers shall not be less than 18 years of age and shall hold a valid student air traffic controller authorisation when receiving instruction in an operational environment.

(d) The Director-General may issue a student air traffic controller authorisation when an applicant satisfactorily complete an approved course of classroom and simulator training and has been recommended by an approved ATC training organisation for the ATC authorisation.

2.7.4 AIR TRAFFIC CONTROLLER LICENCE

(a) *Age.* The applicant for an air traffic controller licence shall be not less than 21 years of age.

(b) *Knowledge.* The applicant for an air traffic controller licence shall receive knowledge instruction through an approved training course from an authorized instructor, in at least the following knowledge areas:

(1) Air law:

(i) rules and regulations relevant to the air traffic controller;

(2) Air traffic control equipment:

(ii) principles, use and limitations of equipment used in air traffic control;

(3) General knowledge:

(i) principles of flight;

(ii) principles of operation and functioning of aircraft and RPAS, powerplants and systems;

(iii)aircraft performances relevant to air traffic control operations;

(4) Human performance:

(i) human performance including principles of threat and error management;

(5) Meteorology:

(i) aeronautical meteorology;

(ii) use and appreciation of meteorological documentation and information;

(iii)origin and characteristics of weather phenomena affecting flight operations and safety; and

(iv) altimetry;

(6) Navigation:

(i) principles of air navigation;

(ii) principle, limitation and accuracy of navigation systems and visual aids; and

(7) Operational procedures:

(i) air traffic control, communication, radiotelephony and phraseology procedures (routine, non routine and emergency);

(ii) use of the relevant aeronautical documentation; and

(iii)safety practices associated with flight.

(c) *Knowledge testing*. An applicant for an air traffic control licence shall pass the required knowledge test on the knowledge areas listed in paragraph (b) above.

(d) *Experience* .

(1)The applicant shall have completed an approved training course and demonstrated the required competence, having accomplished not less than three months' satisfactory service engaged in the actual control of air traffic under the supervision of an air traffic control on-the-job training instructor (ATC OJTI). The experience requirements specified for air traffic controller ratings in 2.7.5 will be credited as part of the experience specified in this paragraph.

(2) An air traffic controller acting as an ATC OJTI shall hold an appropriate rating and be qualified as an ATC OJTI

(e) *Medical fitness*. The applicant for an air traffic controller licence shall hold a current Class 3 medical certificate.

2.7.5 AIR TRAFFIC CONTROLLER RATINGS

(a) Air traffic controller ratings shall comprise the following categories:

(1) aerodrome control rating;

(2) approach control procedural rating;

(3) approach control surveillance rating;

(4) approach precision radar control rating;

(5) area control procedural rating; and

(6) area control surveillance rating.

(b) *Knowledge*. The applicant for an air traffic controller rating shall receive knowledge instruction through an approved training course from an authorized instructor on the following subjects:

(1) aerodrome control rating:

(i) aerodrome layout; physical characteristics and visual aids;

(ii) airspace structure;

(iii)applicable rules, procedures and source of information;

(iv)air navigation facilities;

(v) air traffic control equipment and its use;

(vi)terrain and prominent landmarks;

(vii) characteristics of air traffic;

(viii) weather phenomena; and

(ix)emergency and search and rescue plans;

(2) approach control procedural and area control ratings:

(i) airspace structure;

(ii) applicable rules, procedures and source of information;

(iii)air navigation facilities;

(iv)air traffic control equipment and its use;

(v) terrain and prominent landmarks;

(vi)characteristics of air traffic and traffic flow;

(vii) weather phenomena; and

(viii) emergency and search and rescue plans; and

(3) approach control surveillance, approach precision radar control and area control surveillance ratings:

The applicant shall meet the requirements specified in item (2) above in so far as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:

(i) principles, use and limitations of applicable ATS surveillance systems and associated equipment; and

(ii) procedures for the provision of ATS surveillance services, as appropriate, including procedures to ensure appropriate terrain clearance;

(c) *Knowledge testing.* An applicant for an air traffic controller rating shall:

(1) have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training on the knowledge areas;

(ii) certifies that the person is prepared for the required knowledge test; and

(2) pass the required knowledge test.

(d) *Experience*. The applicant for an air traffic controller rating shall have:

(1) satisfactorily completed an approved training course;

(2) demonstrated the required competence while providing , under the supervision of an ATC OJTI, one or more of the following:

(i) aerodrome control rating: an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought;

(ii) approach control procedural, approach control surveillance, area control procedural or area control surveillance rating: the control service for which the rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought; and

(iii)approach precision radar control rating: not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Director-General. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought; and

(3) if the privileges of the approach control surveillance rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator (PPI) approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated approach radar controller.

(4) The application for a rating shall be made within 6 months from the completion of experience specified in item (2) above.

(5) The Director-General may consider granting a reduction of the experience requirements for a rating when an applicant already holds an air traffic controller

rating in another category, or the same rating for another unit when it is satisfied that the applicant will have achieved the required competency level and there will be no compromise in safety.

(e) *Skill.* The applicant shall have demonstrated by passing the required skill test, at a level appropriate to the privileges being granted, the skill, judgement and performance required to provide a safe orderly and expeditious air traffic control service, including the recognition and the management of threats and errors.

(f) *Privileges.*

(1) Subject to compliance with these Requirements, 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;

— subject to compliance with the provisions of (d) (3) above, the privileges shall include the provision of surveillance radar approaches;

(iv)*approach precision radar control rating*: to provide and/or supervise the provision of precision approach radar service at the aerodrome for which the licence holder is rated;

(v) *area control procedural rating*: to provide and/or supervise the provision of area control service within the control area or portion thereof, for which the licence holder is rated; and

(vi) *area control surveillance rating*: to provide and/or supervise the provision of area control service with the use of an ATS surveillance system, within the control area or portion thereof, for which the licence holder is rated.

(2) Before exercising the privileges indicated in (f)(1) above, the licence holder shall be familiar with all pertinent and current information.

(g) *Validity of ratings.* A rating shall become invalid when an air traffic controller has ceased to exercise the privileges of the rating for a period of 3 months, and shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

(h) *Concurrent issuance of two air traffic controller ratings.*

When an applicant seeks two air traffic controller ratings concurrently, the Director-General will consider the requirements for each rating and make a determination regarding the requirements that will apply for the concurrent issue of the two ratings. These requirements shall not be less than those of the more demanding rating.

2.7.6 AIR TRAFFIC CONTROL ON-THE-JOB TRAINING INSTRUCTOR

(a) Holders of an air traffic controller licence and rating(s) shall not provide instruction in an operational environment unless they are qualified as an air traffic control on-the-job training instructor (OJTI) and hold an OJTI authorisation issued by the Director-General.

(b) The holder of an air traffic control OJTI authorisation may provide on-job-training (OJT) in any rating discipline for which he or she holds a valid rating and has the appropriate operational experience.

(c) *Requirements for an OJTI authorisation.* An applicant for an on-the-job-training instructor authorisation must:

(1) Hold an air traffic controller Licence.

(2) Have successfully completed an OJTI training course and passed any associated assessment or examination as required by the Director-General.

(3) Have held a valid rating in the rating discipline in which he will instruct for a period of at least two (2) years.

(4) Hold and have held a valid rating on the sectors or operational position on which he will instruct for a period of at least twelve (12) months.

(d) *Training for on-the-job training instructors.* Training courses for OJTIs shall be approved by the Director-General. After completing any such course of training the OJTI shall have developed the ability to:

1) Ensure that trainee air traffic controllers are competent in the use of new standards, procedures, techniques, facilities and equipment identified as essential to task performance.
2) Determine and report on the training progress of the trainee air traffic controllers.
3) Identify any deficiencies in knowledge or skill and recommend remedial training.
4) Recommend trainee air traffic controllers as being at an appropriate level of competence where they should be successful at a rating or validation assessment.
5) Supervise air traffic controllers who have had their rating(s) suspended.
(6) Review, monitor and propose changes to the training.

2.7.7 AIR TRAFFIC CONTROL INSTRUCTOR AUTHORISATION

(a) An applicant for an air traffic control instructor authorisation shall:

(1) hold an ATC licence issued in accordance with these Requirements with the rating(s) in the rating discipline in which he or she will instruct.

(2) have at least two (2) years' experience exercising the privileges of an Air Traffic Controller Licence and the relevant Rating.

(4) have worked at least six (6) months within the past twelve (12) months exercising the privileges of an Air Traffic Controller Licence

(5) have satisfactorily completed an approved training course in the theory and practice of instructing that includes the following subjects:

(i) Techniques of applied instruction.

(ii) Assessment of student performance in the subjects taught.

(iii) The learning process.

(iv) Elements of effective teaching

(v) Student evaluation and testing, training philosophies.

(vi) Training programme development

(vii) Lesson planning.

(viii) Classroom instructional techniques.

(ix) Use of training aids, including ATC simulators as appropriate.

(x) Analysis and correction of student errors.

(6) provide an endorsement from an authorised ATC instructor or an Inspector of the Authority or a qualified person authorised by the Director-General certifying that the applicant has demonstrated competency in conducting training for an ATC rating.

(b) *ATC Instructor Currency.* The holder of an ATC Instructor Authorization may not perform the duties of a ground instructor unless, within the preceding 12 months:

(1) The ATC instructor has served for at least 3 months as an ATC Instructor; or

(2) The ATC instructor has received an endorsement from an authorised ATC instructor or an Inspector of the Authority or a qualified person authorized by the Director-General certifying that the Instructor has satisfactorily conducted training for an ATC Rating.

(c) ATC *Instructor privileges.* The holder of a current ATC Instructor Authorisation may conduct knowledge and simulator training for any ATC Rating that the Instructor holds or has held.

2.7.8 AIR TRAFFIC CONTROL EXAMINER AUTHORISATION

(a) An applicant for an air traffic control examiner authorisation shall meet the following requirements:

(1) hold an ATC licence issued in accordance with these Requirements with the rating(s) in the rating discipline in which he or she will examine.

(2) have at least five years experience as an ATCO with the rating(s) in the rating discipline in which he or she will examine.

(3) have at least two years experience as an OJTI in the rating discipline in which he or she will examine.

(4) have satisfactorily completed an ATC examiner training course approved by the Director-General.:

(5) satisfactorily conducted an ATC rating check which was assessed by an Inspector or person approved by the Director-General and recommended for ATC examiner authorisation.

2.8 FLIGHT OPERATIONS OFFICER LICENCE/FLIGHT DISPATCHER

2.8.1 Applicability

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

2.8.2 General

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

(b) An applicant shall for renewal or re-issue of a licence meet the requirements as are specified for that licence.

2.8.3 Flight operations officer licence/Flight Dispatcher

(a) *Age*. The applicant for a flight operations officer licence shall be not less than 21 years of age.

(b) *Knowledge*. The applicant for a flight operations officer licence shall receive and log training from an authorized instructor on the following knowledge areas appropriate to the privileges of the flight operations officer:

(1) Air Law:

(i) rules and regulations relevant for operational control and to the holder of a flight operations officer licence;

(ii) appropriate air traffic services practices and procedures;

(2) Aircraft general knowledge:

(i) principles of operation of aeroplane powerplants, systems and instruments

(ii) operating limitations of aeroplanes and powerplants;

(iii)minimum equipment list and configuration deviation list;

(3) Flight performance calculation, planning procedures and loading:

(i) effects of loading and mass distribution on aircraft performance and flight characteristics; mass and balance calculations;

(ii) operational flight planning; fuel consumption and endurance calculations; alternate airport selection procedures; en-route cruise control; extended range operation;

(iii)take-off performance including field length, climb, and obstacle criteria and limitation ;

(iv)cruise performance including minimum altitude, decompression/engine out/gear down scenario planning ;

(v) landing performance including approach climb and field length criteria and limitations.

(4) Human performance:

(i) human performance relevant to dispatch duties including principles of threat and error management;

(5) Meteorology

(i) aeronautical meteorology; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;

(ii) interpretation and application of aeronautical meteorological reports, charts and forecasts, codes and abbreviations; use of, and procedures for obtaining meteorological information;

(6) Navigation:

(i) principles of air navigation with particular reference to instrument flight;

(7) Operational procedures:

(i) use of aeronautical documentation and standard operating procedures;

(ii) operational procedures for the carriage of freight and dangerous goods;

(iii)procedures relating to aircraft accidents and incidents; emergency flight procedures;

(iv)procedures relating to unlawful interference and sabotage of aircraft;

(8) Principles of flight:

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

(9) Radio communication:

(i) procedures for communicating with aircraft and relevant ground stations;

(c) *Knowledge testing:*

(1) The applicant for a flight operations officer licence shall have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training on the knowledge areas;

(ii) certifies that the person is prepared for the required knowledge test; and

(2) the applicant shall pass the required knowledge test.

(d) *Experience.*

(1) The applicant for a flight operations officer licence shall have gained the following experience:

(i) a total of 2 years' service in any one or in any combination of the capacities specified below in (A) to (C) inclusive, provided that in any combination of experience the period serviced in any one capacity shall be at least one year:

(A) a flight crew member in air transportation; or

(B) a meteorologist in an organisation providing operational control to aircraft in air transportation; or

(C) an air traffic controller; or a technical supervisor of flight operations officers or air transportation flight operations systems; or

(ii) at least one year as an assistant in the dispatching of air transport; or

(iii)have satisfactorily completed a course of approved training.

(2) The applicant shall have served under the supervision of a flight operations officer for at least 90 working days within the 6 months immediately preceding the application.

(e) *Skill.* The applicant shall have demonstrated the ability to:

(1) identify and to retrieve aeronautical data and other information relevant for the analysis of operational situations and risks;

(2) identify and evaluate the risk factors and the possible consequences for flight operations;

(3) identify and evaluate actions considering risk, the effect on flight safety and regularity of the operation;

(4) determine an appropriate course of action based on the responsibilities and policies described in the operation manuals;

(5) apply appropriate standard and non-standard procedures from the operations manual for the initiation, planning, continuation, diversion or termination of flights in the interest of safety of the aircraft and regularity and efficiency of the operation;

(6) make an accurate and operationally acceptable weather analysis; provide an operationally valid briefing on weather conditions of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates;

(7) identify and apply operational limitations and minimums in relation to the weather, aircraft status and appropriate navigation procedures;

(8) determine the optimum flight path for a given segment, and create accurate manual and/or computer generated flight plans;

(9) provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the holder of a flight operations officer licence; and

(10) recognize and manage threats and errors.

(f) *Privileges.* Subject to compliance with these Requirements, the privileges of the holder of a flight operations officer licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the requirements contained in the Requirements for Aircraft Operations and Air Operator Certification.

2.9 RESERVED

2.10 MEDICAL PROVISIONS FOR LICENSING

2.10.1 GENERAL

2.10.1.1 APPLICABILITY

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

2.10.1.2 MEDICAL FITNESS

(a) The applicants for a flight crew licence and air traffic controller licence shall hold a medical certificate issued in accordance with these Requirements.

(b) 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.

(c) The level of medical fitness to be met for renewal of a medical certificate shall be the same as that for the initial assessment except where the Director-General has specifically otherwise stated.

2.10.1.3 AVIATION MEDICAL EXAMINERS (CAME)

(a) Subject to compliance with these Requirements, the Director-General will designate qualified and licenced physicians in the practice of medicine, to conduct medical examinations of fitness of applicants for the issue, renewal or re-issue of licences or ratings specified in these Requirements. Those designated physicians shall be referred

to as Aviation Medical Examiners (CAMEs) and may be designated outside of Guyana.

(b) CAMEs shall have received training in aviation medicine on the subjects listed in IS 2.10.1.3.

(c) CAMEs shall have knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.

(d) CAMEs shall demonstrate adequate competency in aviation medicine before designation.

(e) CAMEs shall receive refresher training in aviation medicine every three years.

(f) The authorization of an CAME is valid for 3 years. The CAME shall have completed at least 10 examinations for a medical certificate per year. Re-authorization will be at the discretion of the Director-General.

(g) Having completed the medical examination of an applicant in accordance with this Section, the CAME shall coordinate the results of the examination and submit a signed report to the Director-General, detailing the results of the examination and evaluating the findings with regard to medical fitness.

(h) If the medical examination is carried out by a constituted group of CAMEs, the head of the group will be appointed by the Director-General, who will be responsible for coordinating the results of the examination, evaluating the findings with regard to medical fitness, and signing the report.

(i) The Director-General will use the services of a Medical Assessor to evaluate and audit reports/ medical certificates submitted to the Director-General by medical examiners.

(j) The CAME shall submit sufficient medical information to the Director-General that will enable the Director-General to audit the medical certificates.

(k) Medical confidentiality shall be respected at all times.

(l) All medical records and reports shall be securely held with accessibility restricted to authorised personnel.

(m) When justified by operational considerations, the Medical Assessor shall determine to what extent pertinent medical information is presented to relevant officials of the Authority.

(n) The Director-General retains the right to reconsider any action of an CAME.

(o) The competence of medical examiners will be evaluated, and their facilities will be inspected periodically by the Medical Assessor or a person authorised by the Director-General.

2.10.1.4 AVIATION MEDICAL EXAMINATIONS

(a) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the CAME a declaration stating whether they have previously undergone such an examination and, if so, the date, place and result of the last examination.

(b) Applicants for a medical certificate shall inform the CAME whether a medical certificate has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension.

(c) Each applicant for a medical certificate shall provide the CAME with a personally certified statement of medical facts concerning personal, familial and hereditary history. Applicants shall be made aware of the necessity of giving a statement that is as complete and accurate as the applicant's knowledge permits and that any false statement may result in suspension or denial of the applicant's medical certificate, or any other action deemed appropriate by the Director-General.

(d) Each applicant for a medical certificate shall produce proof of identification.

(e) Any false declaration to a CAME made by an applicant for a licence or rating shall be reported to the Director-General for such action as may be considered appropriate e.g. suspension or denial of a medical certificate.

(f) The applicant shall complete the appropriate application form provided by the Director-General.

(g) *Deferral of a medical examination.* 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 Director-General, provided that such deferment shall only be made as an exception and shall not exceed:

(1) a single period of six months in the case of a flight crew member engaged in non-commercial operations;

(2) two consecutive periods each of three months in the case of a flight crew member of an aircraft engaged in commercial operations provided that in each case a favourable medical report is obtained after examination by a designated medical examiner of the area concerned, or, in cases where such 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 Director-General.

(3) in the case of a private pilot, a single period not exceeding 24 months where the medical examination is carried out by an examiner designated by the Contracting State in which the applicant is temporarily located. A report of the examination shall be sent to the Director-General; and

(4) two consecutive periods each of three months in the case of a remote flight crew member.

2.10.1.5 SPECIAL CIRCUMSTANCES

(a) If the medical requirements prescribed in these Requirements for a particular licence are not met, the appropriate medical certificate will not be issued, renewed or re-issued unless the following conditions are fulfilled:

(1) accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;

(2) relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and

(3) the licence is endorsed by the Director-General with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.

(b) The CAME shall report to the Director-General any individual case where, in the CAME's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardize flight safety.

2.10.1.6 DECREASE OF MEDICAL FITNESS

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

(b) The Director-General should 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 Licensing Office.

2.10.1.7 USE OF PSYCHOACTIVE SUBSTANCES

(a) Holders of licences provided for in these Requirements shall not exercise the privileges of their licences and related ratings while under the influence of any psychoactive substance which might render them unable to safely and properly exercise these privileges.

(b) Holders of licences provided for in these Requirements shall not engage in any problematic use of substances.

2.10.1.8 MEDICAL CERTIFICATES

(a) The medical certificate shall be in a form and manner prescribed by the Director-General.

(b) *Issue of medical certificates*

(1) A medical certificate will be issued to any person who meets the medical requirements prescribed in this Subpart, based on medical examination and evaluation of the applicant's history and condition as follows:

(i) The Director-General will issue the Class 1, Class 2 and Class 3 medical certificates.

(ii) The issue of a temporary medical certificate for a period of up to 30 days may be delegated to the authorized Aviation Medical Examiner.

(2) Each person to be issued a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this Subpart.

(3) Any person who does not meet the medical requirements of this Subpart may apply for the discretionary issuance of a certificate under 2.10.1.5.

(c) *Validity*:

(1) A medical certificate issued in accordance with these Requirements shall be valid from the date of the examination for a period not greater than:

(i) 6 months for the Class 1 for the CPL, MPL, ATPL and flight engineer licence.

(ii) 24 months for the Class 2 for the PPL, and for the Class 1 for holders of PPL with IR.

(iii)24 months for the Class 3 for the air traffic controller licence;

(2) When the holders have passed their 40th birthday the period of validity specified in (1)(ii) and (1)(iii) above for the PPL and air traffic controller licence will be reduced to 12 months.

(3) For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. For any renewal or re-issuance of a medical certificate, based on a medical examination that takes place during the period of validity of the current medical certificate, but no more than 45 days before its expiry date, the new period of validity shall begin on that date. For any renewal or re-issuance, based on a medical examination taking place after the

expiry date or earlier than 45 days before the expiry date, the new period of validity shall begin on the date of the examination.

(4) The period of validity of the medical certificate may be extended, at the discretion of the Director-General, up to 45 days.

(5) The period of validity of the medical certificate may be reduced by the Director-General when clinically indicated.

(d) *Renewal or re-issue of a medical certificate*

(1) The requirements to be met for the renewal or re-issue of a medical certificate are the same as those for the initial certificate except where otherwise specifically stated.

(2) The renewal or re-issue of the Class 1, 2 and 3 medical certificate will be done by the Guyana Civil Aviation Director-General.

(e) *Limitation or denial*

(1) The Guyana Civil Aviation Director-General may for medical reasons justified and notified to the applicant limit or deny a medical certificate.

(f) S*uspension or revocation of a medical certificate*

(1) The Guyana Civil Aviation Director-General may in accordance with 2.2.10 suspend or revoke a medical certificate issued, if it is established that an applicant or a certificate holder has not met, or no longer meets these Requirements.

2.10.2 MEDICAL REQUIREMENTS

2.10.2.1 REQUIREMENTS FOR MEDICAL CERTIFICATES

2.10.2.1.1 GENERAL

An applicant for a medical certificate issued in accordance with these Requirements, shall undergo a medical examination based on the following requirements:

(a) physical and mental;

(b) visual and colour perception; and

(c) hearing.

2.10.2.1.2 PHYSICAL AND MENTAL REQUIREMENTS

An applicant for any class of medical certificate shall be required to be free from:

(a) any abnormality, congenital or acquired; or

(b) any active, latent, acute or chronic disability; or

(c) any wound, injury or sequelae from operation; or

(d) any effect or side-effect of any prescribed or non-prescribed therapeutic, diagnostic or preventative medication taken;

such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

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

2.10.2.1.3 VISUAL ACUITY TEST REQUIREMENTS

(a) Visual acuity tests must be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m^2).

(b) Visual acuity must be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

2.10.2.1.4 COLOUR PERCEPTION REQUIREMENTS

(a) Aviation medical examiners shall only use such methods of examination as will guarantee reliable testing of colour perception .

(b) The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.

(c) The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D_{65} as specified by the International Commission of Illumination (CIE).

(d) An applicant obtaining a satisfactory result as prescribed by the Guyana Civil Aviation Director-General 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.

(e) Sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarizing and of a neutral grey tint.

2.10.2.1.5 HEARING REQUIREMENTS

(a) Aviation medical examiners shall only use such methods of examination as will guarantee reliable testing of hearing.

(b) Applicants shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.

(c) Applicants for Class 1 medical certificates shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every five years up to the age of forty years, and thereafter not less than once every two years.

(d) Applicants for Class 3 medical certificates shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every four years up to the age of forty years, and thereafter not less than once every two years.

(e) Applicants for a Class 2 medical certificate shall be tested by pure-tone audiometry at first issue of the Assessment and, after the age of 50 years, not less than once every two years.

(f) Alternatively, other methods providing equivalent results may be used.

(g) At medical examinations, other than those mentioned in (c), (d) and (e) above, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests

Note 1: — The reference zero for calibration of pure-tone audiometers is that of the pertinent Standards of the current edition of the Audiometric Test Methods, published by the International Organisation for Standardization (ISO).

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

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

2.10.2.2 CLASS 1 MEDICAL CERTIFICATE

2.10.2.2.1 CERTIFICATE ISSUE AND RENEWAL

(a) An applicant for a CPL, MPL or ATPL licence shall undergo an initial medical examination for the issue of a Class 1 medical certificate.

(b) Except where otherwise stated in this subpart, holders of CPL, MPL or ATPL licence shall have their Class 1 medical certificate renewed at intervals not exceeding those specified in 2.10.1.8. (c).

(c) A Class 1 medical certificate will be issued when the applicant complies with these Requirements.

2.10.2.2.2 PHYSICAL AND MENTAL REQUIREMENTS

The examination for a Class 1 medical certificate shall be based on the following requirements.

(a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(b) (1)The applicant shall have no established medical history or clinical diagnosis of:

(i) an organic mental disorder ;

(ii) a mental or behavorial disorder due to the use of psychoactive substances ; this includes dependance syndrome induced by alcohol or other psychoactive substances ;

(iii)schizophrenia or a schizotypal or delusional disorder;

(iv)a mood (affective) disorder;

(v) a neurotic, stress-related or somatoform disorder;

(vi)A behavioural syndrome associated with psychological disturbance or physical factors;

(vii) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(viii) Mental retardation;

(ix)A disorder of psychological development;

(x) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(xi)A mental disorder not otherwise specified;

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

(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 privilege.

Note: — A history of acute toxic psychosis need not be regarded as disqualifying, provided that the applicant has suffered no permanent impairment.

(c) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(1) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(2) epilepsy;

(3) any disturbance of consciousness without satisfactory medical explanation of cause;

(d) Cases of 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 best medical practice and is assessed not likely to interfere 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/Certificate and shall be included in re-examination of applicants between the ages of 30 and 50 no less frequently than every two years, and thereafter no less frequently than annually.

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

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

(j) The use of drugs for control of high blood pressure shall be 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.

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

(l) There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal and emergency operations. Radiography shall form a part of the medical examination in all doubtful clinical cases.

(m) Chest radiography shall form a part of the initial examination.

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

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

(o) Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal and 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 ratings privileges.

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

(r) Applicants with quiescent or healed lesions which are known to be tuberculosis, or are presumably tuberculosis in origin, may be assessed as fit.

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

(t) Applicants 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 adnexa, likely to cause incapacitation in flight, in particular any obstruction 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 adnexa with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight.

(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.

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

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

(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 their licence and rating privileges.

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

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

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

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

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

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

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

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

(ii) *For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with (hh) above, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.*

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

(kk) 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.

(ll) The applicant shall not posses 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.

(mm) There shall be:

(1) no disturbance of vestibular function;

(2) no significant dysfunction of the Eustachian tubes; and

(3) no unhealed perforation of the tympanic membranes.

Note. — A single dry perforation of the tympanic membrane need not render the applicant unfit.

(nn) There shall be:

(1) no nasal obstruction: and

(2) no malformation nor any disease of the buccal cavity or upper respiratory tract

which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

2.10.2.2.3 VISUAL REQUIREMENTS

The medical examination shall be based on the following requirements.

(a) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

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

(1) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(2) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: — 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 Director-General. Both uncorrected and correct visual acuity are normally measured and recorded at each re-examination. Conditions

which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

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

(1) the lenses are monofocal and non-tinted;

(2) the lenses are well tolerated; and

(3) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

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

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

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

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

(f) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

(g) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily

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

Note 1: — N5 and N14 refer to the size of typeface used. For further details, see the ICAO 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. Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.10.2.2.4 HEARING REQUIREMENTS

The medical examination shall be based on the following requirements.

(a) The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.

(b) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that

reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.

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

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

Note 3: 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.

2.10.2.3 CLASS 2 MEDICAL CERTIFICATE

2.10.2.3.1 CERTIFICATE ISSUE AND RENEWAL

(a) An applicant for a PPL and a flight engineer 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 and a flight engineer licence shall have their Class 2 medical certificate renewed at intervals not exceeding those specified in 2.10.1.8. (b).

(c) A Class 2 medical certificate will be issued when the applicant complies with these Requirements.

2.10.2.3.2 PHYSICAL AND MENTAL REQUIREMENTS

The medical examination shall be based on the following requirements.

(a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

(b) (1) The applicant shall have no established medical history or clinical diagnosis of:

(i) an organic mental disorder;

(ii) a mental or behavorial disorder due to the use of psychoactive substances ; this includes dependance syndrome induced by alcohol or other psychoactive substances ;

(iii)schizophrenia or a schizotypal or delusional disorder;

(iv)a mood (affective) disorder;

(v) a neurotic, stress-related or somatoform disorder;

(vi)A behavioural syndrome associated with psychological disturbance or physical factors;

(vii) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(viii) Mental retardation;

(ix)A disorder of psychological development;

(x) A behavioural or emotional disorder, with onset in childhood or adolescence; or

(xi)A mental disorder not otherwise specified;

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

(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 privilege.

(c) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(1) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(2) epilepsy;

(3) any disturbance of consciousness without satisfactory medical explanation of cause;

(d) The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(e) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(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 best medical practice and is assessed not likely to interfere 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.

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

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

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

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

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

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

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

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

(p) Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal and 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 ratings privileges.

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

(s) Applicants with quiescent or healed lesions which are known to be tuberculosis, or are presumably tuberculosis in origin, may be assessed as fit.

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

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

(v) Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacitation in flight, in particular any obstructions due to 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 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 assessor having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacitation in flight.

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

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

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

Note: — Sickle cell trait and other haemoglobinophatic traits are usually compatible with fit assessment.

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

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

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

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

(ff) Aplicants with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

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

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

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

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

Note: — For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with (jj), 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

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

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

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

(ll) 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 applicants licence and rating privileges.

(mm) There shall be:

(1) no disturbance of vestibular function;

(2) no significant dysfunction of the Eustachian tubes; and

(3) no unhealed perforation of the tympanic membranes.

Note: A single dry perforation of the tympanic membrane need not render the applicant unfit.

(nn) There shall be:

(1) no nasal obstruction: and

(2) no malformation nor any disease of the buccal cavity or upper respiratory tract;

which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

2.10.2.3.3 VISUAL REQUIREMENTS

The medical examination shall be based on the following requirements.

(a) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

(b) Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

(1) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(2) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: — An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Director-General. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

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

(1) the lenses are monofocal and non-tinted;

(2) the lenses are well tolerated; and

(3) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

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

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

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

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

(f) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

(g) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle 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.

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 section, 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: Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.10.2.3.4 HEARING REQUIREMENTS

(a) Applicants who are unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner and with the back turned to the examiner, shall be assessed as unfit.

(b) When tested by pure-toned 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) An applicant who does meet the requirements in (a) or (b) above should undergo further testing in accordance with 2.10.2.2.4(b).

2.10.2.4 CLASS 3 MEDICAL CERTIFICATE

2.10.2.4.1 CERTIFICATE ISSUE AND RENEWAL

(a) An applicant for an Air Traffic Controller licence shall undergo an initial medical examination for the issue of a Class 3 medical certificate.

(b) Except where otherwise stated in this subpart, holders of an Air Traffic Controller licence shall have their Class 3 medical certificate renewed at intervals not exceeding those specified in 2.10.1.8. (b).

(c) A Class 3 medical certificate will be issued when the applicant complies with these Requirements.

2.10.2.4.2 PHYSICAL AND MENTAL REQUIREMENTS

(a) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable to perform assigned duties safely.

(b) (1) The applicant shall have no established medical history or clinical diagnosis of:

(i) an organic mental disorder;

(ii) a mental or behavioural disorder due to psychoactive substance use ; this includes dependance syndrome induced by alcohol or other psychoactive substances;

(iii)schizophrenia or a schizotypal or delusional disorder;

(iv)a mood (affective) disorder;

(v) a neurotic, stress-related or somatoform disorder;

(vi)a behavioural syndrome associated with psychological disturbances or physical factors;

(vii) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

(viii) mental retardation;

(ix)a disorder of psychological development;

(x) a behavioural or emotional disorder, with onset in childhood or adolescence; or

(xi)a mental disorder not otherwise specified;

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

(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 privilege.

(c) The applicant shall have no established medical history or clinical diagnosis of any of the following:

(1) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;

(2) epilepsy;

(3) any disturbance of consciousness without satisfactory medical explanation of cause.

(d) The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(e) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

(f) An applicant who has undergone 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 best medical practice and is assessed not likely to interfere 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 after the age of 50 no less than every two years

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

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

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

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

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

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

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

(o) Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal and 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 ratings privileges.

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

Note: Applicants with quiescent or healed lesions which are known to be tuberculosis, or are presumably tuberculosis in origin, may be assessed as fit.

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

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

(t) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation

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

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

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

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

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

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

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

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

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

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

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

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

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

Note: — 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 with (ff) above, the fit assessment shall 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 evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

(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 applicants licence and rating privileges.

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

(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 applicants licence and rating privileges.

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

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

2.10.2.4.3 VISUAL REQUIREMENTS

The medical examination shall be based on the following requirements.

(a) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

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

(1) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(2) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: — An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Director-General. Both uncorrected and correct visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

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

(1) the lenses are monofocal and non-tinted;

(2) the lenses are well tolerated; and

(3) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

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

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

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

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

(f) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

(g) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle 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.

Note 2: — An applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed materials and also to make use of

distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties. However it should be realized that single-vision near correction significantly reduces distant visual acuity.

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

(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: — Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

2.10.2.4.4 HEARING REQUIREMENTS

(a) The applicant, when tested on a pure-tone audiometer shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.

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

Note 2: — The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.

Note 3: — In the speech material for discrimination testing, both aviation-related phrases and phonetically balanced words are used .

Note 4: — Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.

2.11. AUTHORISATION OF FLIGHT INFORMATION SERVICE OFFICERS.

2.11.1 Applicability

This section prescribes the requirements for the issue, renewal or re-issue of a flight information service officer authorisation.

2.11.2 General

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

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

2.11.3 Flight Information Service Officer Authorisation

(a) *Age*- the applicant for a flight information officer authorisation shall not be less than 18 years of age.

(b) *Knowledge.* The applicant for a flight information officer authorisation shall receive and log ground training from an authorised instructor on the following subjects appropriate to the functions of a FISO

1) General Knowledge:

(i) air traffic services provided within Guyana;

(2) Operational Procedures:

(i) radiotelephony procedures; phraseology; telecommunication network;

(3) Rules and regulations:

(i) rules and regulations applicable to the flight information service officer;

(4) Telecommunication equipment:

(i) principles, use and limitations of telecommunication equipment in an aeronautical station

(c) *Knowledge testing.* An applicant for FISO Authorisation shall:

(1) have received an endorsement for the knowledge test from an authorized instructor who:

(i) conducted the training on the knowledge areas;

(ii) certifies that the person is prepared for the required knowledge test; and

(2) pass the required knowledge test.

(d) *Experience.* The applicant for FISO Authorisation shall have:

(1) satisfactorily completed an approved training course within the 12-month period immediately preceding application, and have served satisfactorily under a qualified FISO for not less than 2 months; or

(2) satisfactorily served under a qualified flight information service officer for not less than 3 months during the 12-month period immediately preceding application.

(e) *Skill.* The applicant for FISO Authorisation shall demonstrate, or have demonstrated, competency in:

(1) operating the telecommunication equipment in use; and

(2) transmitting and receiving radiotelephony messages with efficiency and accuracy.

(f) *Privileges.* Subject to compliance with these Requirements, the privileges of the holder of a FISO shall be to act as an operator in flight information centre. Before exercising the privileges of the authorisation, the holder shall be familiar with all pertinent and current information regarding the types of equipment and operating procedures used at that flight information centre.

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

(a) Issue, renewal and re-issue of licences, ratings, authorizations, designations, endorsements, and certificates will take place when the applicant complies with the applicable sections of these Requirements for issue, renewal and re-issue for these licences, ratings authorizations and certificates.

(b) Issue, renewal and re-issue of licences, ratings, authorizations, designations, endorsements and certificates which have an expiry date written therein will be performed by the Director-General.

(c) General.

(d) Notwithstanding (b) above, renewal of ratings and category II/III pilot authorizations may be performed by an Examiner, when delegated by the Director-General.

(e) Notwithstanding (b), issue of a temporary medical certificate may be performed by the CAME, when delegated by the Director-General.

(f) Application for the issue, renewal and re-issue of licences, ratings, authorizations, designations, endorsements or certificates shall be done by submitting a properly filled out form, which form may be obtained from the Licensing Office of the Authority or downloaded from the Authority's website. This form must be submitted to the Director-General at least 14 days before the expiry date along with proof of payment of relevant fees and evidence of required recent experience and proficiency checks/tests.

(g) nce of required recent experience and proficiency checks/tests.

IS 2.2.3 Re-issue of licences and ratings

Re-issue of pilot licences. Pilot licences that are expired for less that two years will be re-issued after the pilot:

(i) received an endorsement from an authorised instructor that he or she has conducted refresher training for the pilot in the applicable category and class of aircraft and that the pilot is prepared for the skill test; and

(ii) passed the required skill test.

(a) Re-issue of aircraft maintenance engineer licences
(to be developed)

(b) Re-issue of ATCO licences
(to be developed)

(c) Re-issue of flight dispatcher licences
(to be developed)

NOTE: Recent experience acquired on a foreign licence will be taken into consideration regarding requirements for Re-issue of expired licences. Refresher training may be waived for ratings that are current and valid on a foreign licence.

IS 2.2.4.2 APPENDIX A: PROCEDURES FOR CONVERSION OF A PPL

(a) The holder of a private pilot licence issued by another contracting State may directly apply for a conversion of his or her licence, without prior holding a validation as is required for PPL/IR or professional licences under 2.2.4.2 (b).

(b) The applicant shall, before application for a conversion, comply with the requirements of 2.2.4.3 (a) and (d).

(c) Application for the issue of a conversion of a licence issued by another contracting State must be done by submitting a properly filled out form, which form may be obtained from the Director-General or downloaded from the Authority's website.

(d) The application form for conversion of a licence issued by another contracting State must be submitted to the Director-General at least 14 days in advance of the date the conversion is desired.

(e) The valid licence from the other contracting State and the record (e.g.) logbook must be presented to the Director-General.

(f) The applicant shall hold a medical certificate relevant to the licence applied for and this medical certificate will be issued by the Director-General when the applicant complies with the applicable sections of these Requirements.

(g) The Director-General whenever he or she issues a licence based on a licence issued by another contracting State, remains responsible for the converted licence.

IS 2.2.4.2 APPENDIX B: PROCEDURES FOR CONVERSION OF A PPL/IR, CPL, CPL/IR, ATPL AND FLIGHT ENGINEER LICENCE

(a) The applicant shall, before application for a conversion, complete the requirements of 2.2.4.3.

(b) Application for the conversion of a licence issued by another contracting State shall be made by submitting a properly filled out form to the Director-General, which form may be obtained from the Director-General or downloaded from the Authority's website.

(c) The application form for the issue of a conversion of a licence issued by another contracting State must be submitted to the Director-General at least 14 days in advance of the date the conversion is desired.

(d) The valid licence from the other contracting State and the record (e.g. logbook) must be presented to the Director-General.

(e) The applicant shall hold a medical certificate relevant to the licence applied for and this medical certificate will be issued by the Director-General when the applicant complies with the applicable sections of these Requirements.

(f) The Director-General whenever he or she issues a licence based on a licence issued by another contracting State, remains responsible for the converted licence.

IS 2.2.4.3 APPENDIX C: PROCEDURES FOR VALIDATION AND CONVERSION OF FLIGHT CREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE.

(a) The Director-General whenever he or she issues a validation or a licence based on a licence from another contracting State, remains responsible for the validation certificate and the converted licence.

(b) The Director-General must, before making the agreement mentioned in 2.2.4.3 (a)(3) be convinced, that the other contracting State issues licences in conformity with at least the Requirements for Personnel Licence 2024.

(c) An inspector or licensing subject matter expert from Guyana, or from another contracting State delegated by the Director-General, may visit the other contracting State and audit the licensing system in the other contracting State to ensure that is in conformity with at least the Requirements for Personnel Licence 2024. The audit may also be done remotely by assessing the Regulations and other documentation published by the other contracting State and coordinating as necessary with the Licensing Office of that State, and by depending on the findings of ICAO's audit of that State. A report describing the basis for the decision shall be made to the Director-General.

(d) depending on the findings of ICAO's audit of that State. A report describing the basis for the decision shall be made to the Director-General.

(e) CAO's audit of that State. A report describing the basis for the decision shall be made to the Director-General.

(f) An Air Law test must be arranged if the Air Law system of Guyana is different from the Air Law system of the other contracting State.

(g) Renewal and re-issue of the validation certificate or the converted licences and ratings:

(1) when examiners are available in Guyana to perform proficiency checks for the renewal of rating(s) or skill tests for the re-issue of the licence or rating(s), these tests/checks will be performed by the authorised examiners of Guyana;

(2) when examiners are not available in Guyana to perform proficiency checks for the renewal of the rating(s) or skill test for the re-issue of the licence or rating(s), the

availability of examiners for these tests/checks from the other contracting State can be arranged in the agreement mentioned in 2.2.4.3 (a)(3).

(3) reement mentioned in 2.2.4.3 (a)(3).

(h) Application for the validation certificate and the conversion of a licence from another contracting State shall be done by submitting to the Director-General a properly filled out form, which form can be obtained from the Director-General.

(i) The valid licence from the other contracting State and the record (e.g. logbook) must be presented to the Director-General.

(j) The applicant shall hold a medical certificate relevant to the licence applied for and this medical certificate will be issued by the Director-General, when the applicant complies with the applicable sections of these Requirements.

IS 2.2.5 RESERVED

IS 2.2.6 Appendix A: Prerequisites for a knowledge test

(a) The applicant shall, before attempting the knowledge test for a licence or rating:

(1) have satisfactorily accomplished the required training;

(2) have an endorsement in his or her logbook or training record, that has been signed by an authorised instructor, who certifies that the applicant is prepared for the knowledge test.

IS 2.2.6 Appendix B: Prerequisites for a skill test

(a) An applicant shall, before attempting the skill test for a licence or rating:

(1) have passed the required knowledge test within the 12-calendar-month period preceding the month the applicant completes the skill test;

(2) have satisfactorily accomplished the required training and obtained the experience prescribed by the Requirements for Personnel Licensing for the licence or rating sought;

(3) meet the prescribed age requirement for the issuance of the licence or rating sought; and

(4) have an endorsement in his or her logbook or training record that has been signed by an authorised instructor, who certifies that the applicant is prepared for the required skill test.

(b) An applicant for an airline transport pilot licence may take the skill test for that licence with a knowledge test report that has been completed within a period of 7 years before the application, provided the applicant is employed as a flight crew member by the holder of a Guyana Air Operator Certificate at the time of the skill test.

(c) kill test.

IS 2.2.7 Language proficiency

(a) General

(1) To meet the language proficiency requirements contained in 2.2.7, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the Director-General, compliance with the holistic descriptors in paragraph (b) below and with at least the Operational Level (Level 4) of the Language Proficiency Rating Scale as mentioned in paragraph c) below.

(b) Holistic descriptors: Proficient speakers shall:

(1) communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations;

(2) communicate on common, concrete and work-related topics with accuracy and clarity;

(3) use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;

(4) handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and

(5) use a dialect or accent which is intelligible to the aeronautical community.

(c) Rating scale:

(1) 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.

se 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.

an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming or clarifying.

(2) 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.

(3) Expert Level (Level 6)

(i) Pronunciation: Pronunciation, stress, rhythm, and intonation, thought possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.

(ii) Structure: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.

(iii)Vocabulary: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.

(iv)Fluency: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.

(v) Comprehension: Comprehension is consistently accurate in nearly all contexts and

includes comprehension of linguistic and cultural subtleties.

(vi)Interactions: Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.

IS 2.2.8 Recording of flight time

The details in the records of flights flown as pilot shall contain the following items:

(a) For the purpose of meeting the requirements of 2.2.6.1 and 2.3.1.6, each person shall enter the following information for each flight or lesson logged:

(1) Personal details:

(i) Name and address of the holder

(2) For each flight:

(i) Name of PIC

(ii) Date of flight

(iii)Place and time of departure and arrival

(iv)Type of aircraft and registration

(3) For each synthetic flight trainer session:

(i) Type and qualification number of flight trainer

(ii) Synthetic flight trainer instruction

(iii)Date

(iv)Total time of session

(4) Pilot function:

(i) Solo

(ii) PIC

(iii)Co-pilot

(iv)Dual

(v) Flight instructor

(b) Logging of flight time

(1) Logging of solo flight time:

(i) A student pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

(2) Logging of PIC flight time:

(i) The applicant or the holder of a pilot licence may log as PIC time all that flight time during which that person is:

(A) The sole manipulator of the controls of an aircraft for which the pilot is rated; and

(B) Acting as PIC of an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(ii) An authorised instructor may log as PIC time all of the flight time while acting as an instructor.

(iii)A student pilot may log as PIC time all solo flight time and flight time as student pilot-in-command provided that such time is countersigned by the instructor.

(3) Logging of co-pilot time:

(i) A person may log co-pilot time only when occupying a pilot seat as co-pilot in an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted.

(4) Logging of instrument flight time:

(i) A person may log instrument flight time only for that flight when the person operates the aircraft solely by reference to instruments under actual or simulated instrument flight conditions.

(5) Logging instruction time:

(i) A person may log instruction time when that person receives training from an authorised instructor in an aircraft or synthetic flight trainer.

(ii) The instruction time shall be logged in a record (e.g. logbook) and shall be endorsed by the authorised instructor.

IS 2.2.9 Format of the licence

The following details shall appear on the licence:

I) GUYANA (in bold type);

II) Title of licence (in very bold type);

III) Serial number of the licence, in Arabic numerals, given by the Authority;

IV) Name of holder in full (in Roman alphabet also if script of national language is other than Roman;

IVa) Date of Birth;

V) Address of holder;

VI) Nationality of holder;

VII) Signature of holder;

VIII) Authority and, where necessary, conditions under which the licence is issued;

IX) Certification concerning validity and authorization for the holder to exercise privileges appropriate to the licence;

X) Signature of officer issuing the licence and the date of such issue;

XI) Seal or stamp of the Director-General;

XÏI) Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control, etc.;

XIII) Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including endorsement of language proficiency;

XIV) Any other details desired by the Authority.

IS 2.2.9.2 Common Form of the Electronic Personnel Licence

The common form shall be in the English language as follows:

Electronic personnel licence		
General	I	Name of State (in bold type);
	II	Title of licence (in very bold type);
	III	Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;
Personnel information	IVa	Photograph of holder[1];
	IVb	Name of holder in full (in Roman alphabet also if script of national language is other than Roman);
	IVc	Date of birth (dd-mm-yyyy);
	V	Address of holder if desired by the State;
	VI	Nationality of holder;
	VII	Script signature of holder;
Issuing authority	VIII	Authority and, where necessary, conditions under which the licence is issued;
	IX	Certification concerning validity and authorization for holder to exercise privileges appropriate to the licence;
	X	Digital signature of officer issuing the licence and the date and time of such issue;
	XIa	Seal or stamp of authority issuing the licence;
	XIb	Date and time of last synchronization with the server of the Licensing Authority;
	XIc	Machine readable code to retrieve authentication data;

Electronic personnel licence		
Ratings	XII	Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control, etc.;
Remarks	XIII	Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention;
	XIV	Any other details desired by the State issuing the licence;
Medical assessment	XVa	Class (1, 2 or 3);
	XVb	Expiry date (dd-mm-yyyy);
	XVc	Special medical limitations[2], if any;
	XVd	Other information associated with the medical assessment as determined by the Medical Authority;
Additional supplementary information	XVIa	Other information associated with the licence as determined by the Licensing Authority;
	XVIb	Other information associated with the licence as determined by the Licensing Authority; and
	XVIc	Other information associated with the licence as determined by the Licensing Authority.

IS 2.3.2.4 APPENDIX A: CLASS/TYPE RATING (SPA AND MPA) - KNOWLEDGE

(a) The knowledge instruction and test for the type rating for aeroplanes shall include the following subjects:

(1) Aeroplane structure and equipment, normal operation of systems and malfunctions

(i) Dimensions

(ii) Engine including auxiliary power unit

(iii)Fuel system

(iv)Pressurisation and air-conditioning

(v) Ice protection, windshield wipers and rain repellent

(vi)Hydraulic systems

(vii) Landing gear

(viii) Flight controls, lift devices

(ix)Electrical power supply

(x) Flight instruments, communication, radar and navigation equipment

(xi)Cockpit, cabin and cargo compartment

(xii) Emergency equipment

(2) Limitations:

(i) General limitations

(ii) Engine limitations

(iii)System limitations

(iv)Minimum equipment list

(3) Performance, flight planning and monitoring

(4) Load, balance and servicing

(i) Load and balance

(ii) Servicing on the ground

(5) Emergency procedures

(6) Special requirements for extension of a type rating for instrument approaches down to a decision height of less than 200 ft (60m)

(i) Airborne and ground equipment: technical requirements, operational requirements, operational reliability, fail operational, fail-passive, equipment reliability, operating procedures, preparatory measures, operational downgrading, communications

(ii) Procedures and limitations: operational procedures, crew co-ordination

(7) Special requirements for "glass cockpit" aeroplane with electronic flight instrument systems (e.g. EFIS, EICAS)

(8) Flight Management systems (FMS)

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

(a) The flight instruction, skill test and proficiency for CRM for the multi-pilot type rating shall include the following subjects:

(1) The training programme:

(i) An initial indoctrination/awareness segment;

(ii) A method to provide recurrent practice and feedback; and

(iii) A method of providing continuing reinforcement

(2) Topics to be contained in an initial CRM training course:

(i) Communications processes and decision behaviour;

(ii) Internal and external influences on interpersonal communications;

(iii) Barriers to communication;

(iv) Listening skills;

(v) Decision making skills

(vi) Effective briefings;

(vii) Developing open communications;

(viii) Inquiry, advocacy and assertion training;

(ix) Crew self-critique;

(x) Conflict resolution;

(xi) Team building and maintenance;

(xii) Leadership and followership training;

(xiii) Interpersonal relationships;

(xiv) Workload management;

(xv) Situational awareness

(xvi) How to prepare, plan and monitor task completions;

(xvii) Workload distribution;

(xviii) Distraction avoidance;

(xix) Individual factors; and

(xx) Stress reduction.

IS 2.3.2.5 CATEGORY II AND III AUTHORISATION

(a) The Authority will issue a Category II or Category III pilot authorisation by letter, as a part of an applicant's instrument rating or airline transport pilot licence.

(b) Upon original issue the authorisation will contain the following limitations—

(1) For Category II operations, 1,600 feet RVR and a 150-foot decision height; and

(2) For Category III operations, as specified in the authorisation document.

(c) To remove the limitations on a Category II or Category III pilot authorisation—

(1) A Category II limitation holder may remove the limitation by showing that, since the beginning of the sixth preceding month, the holder has made three Category II ILS approaches with a 150-foot decision height to a landing under actual or simulated instrument conditions; or

(2) A Category III limitation holder may remove the limitation by showing experience as specified in the authorisation.

(d) An authorisation holder or an applicant for an authorisation may use a FSTD 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 these Requirements for a Category II or a Category III pilot authorisation, as applicable.

(e) Category II: practical test requirements.

(1) An applicant for the following authorisations shall pass a practical test for:

(i) Issuance or renewal of a Category II pilot authorisation.

(ii) The addition of another type of aircraft to a Category II pilot authorisation.

(2) To be eligible for the practical test for an authorisation under this subsection, an applicant shall—

(i) Meet the requirements of 2.3.2.5; and

(ii) If the applicant has not passed a practical test for this authorisation during the 12 calendar months preceding the month of the test—

(A) Meet the requirements of 8.4.1.10 (of the Operations Requirements); and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall accomplish the approaches specified in IS 2.3.2.5 (e)(2)(ii)(B):

(i) Under actual or simulated instrument flight conditions;

(ii) To the minimum 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 FSTD or an approved flight training device; and

(iv) In an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted or in an approved FSTD that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certified under the Requirements for ATO 2024.

(f) *Category II: practical test procedures*. The practical test consists of an oral increment and a flight increment.

(1) Oral increment. In the oral increment of the practical test an applicant shall demonstrate knowledge of the following—

(i) Required landing distance;

(ii) Recognition of the decision height;

(iii) Missed approach procedures and techniques using computed or fixed attitude guidance displays;

(iv) Use and limitations of RVR;

(v) Use of visual clues, their availability or limitations, and altitude at which they are normally discernible at reduced RVR readings;

(vi) Procedures and techniques related to transition from nonvisual to visual flight during a final approach under reduced RVR;

(vii) Effects of vertical and horizontal windshear;

(viii) Characteristics and limitations of the ILS and runway lighting system;

(ix) Characteristics and limitations of the flight director system, auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other required Category II equipment;

(x) Assigned duties of the SIC during Category II approaches, unless the aircraft for which authorisation is sought does not require an SIC; and

(xi) Instrument and equipment failure warning systems.

(2) Flight increment. The following requirements apply to the flight increment of the practical test—

(i) The flight increment shall be conducted in an aircraft of the same category, class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved FSTD that—

(A) Represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) Is used in accordance with an approved course conducted by an ATO certified under these Requirements.

(ii) The flight increment shall consist of at least two ILS approaches to 100 feet AGL including at least one landing and one missed approach.

(iii) All approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands.

(iv) If a multiengine aeroplane with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker.

(v) the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker.

(vi) If an approved multiengine FSTD is used for the practical test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed.

(vii) 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.

(viii) An inspector or evaluator may conduct oral questioning at any time during a practical test.

(g) Category III: practical test requirements.

(1) The Authority will require that an applicant pass a practical 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 practical test an applicant shall—

(i) Meet the requirements of 2.3.2.5; and

(ii) If the applicant has not passed a practical test for this authorisation during the 12 calendar months preceding the month of the test,

(A) Meet the requirements of 8.4.1.10, 8.10.1.20 and 8.10.1.32.; and

(B) Have performed at least six ILS approaches during the 6 calendar months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(3) An applicant shall conduct the approaches specified in paragraph (2)(ii)(B) of this subsection—

(i) Under actual or simulated instrument flight conditions;

(ii) To the alert height or decision height for the ILS approach in the type aircraft in which the practical test is to be conducted;

(iii) Not necessarily to the decision height authorised for Category III operations;

(iv) To the alert height or decision height, as applicable, authorised for Category III operations only if conducted in an approved FSTD 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 FSTD 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 these Requirements.

(4) Knowledge requirements: An applicant shall demonstrate knowledge of the following:

(i) Required landing distance.

(ii) Determination and recognition of the alert height or decision height, as applicable, including use of a radar altimeter.

(iii) Recognition of and proper reaction to significant failures encountered prior to and after reaching the alert height or decision height, as applicable.

(iv) Missed approach procedures and techniques using computed or fixed attitude guidance displays and expected height loss as they relate to manual go-around or automatic go-around, and initiation altitude, as applicable.

(v) Use and limitations of RVR, including determination of controlling RVR and required transmissometers.

(vi) Use, availability, or limitations of visual cues and the altitude at which they are normally discernible at reduced RVR readings including—

(A) Unexpected deterioration of conditions to less than minimum RVR during approach, flare, and rollout;

(B) Demonstration of expected visual references with weather at minimum conditions;

(C) The expected sequence of visual cues during an approach in which visibility is at or above landing minima; and

(D) Procedures and techniques for making a transition from instrument reference flight to visual flight during a final approach under reduced RVR.

(vii) Effects of vertical and horizontal windshear.

(viii) Characteristics and limitations of the ILS and runway lighting system.

(ix) Characteristics and limitations of the flight director system auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other Category III equipment.

(x) Assigned duties of the SIC during Category III operations, unless the aircraft for which authorisation is sought does not require a SIC.

(xi) Recognition of the limits of acceptable aircraft position and flight path tracking during approach, flare, and, if applicable, rollout.

(xii) Recognition of, and reaction to, airborne or ground system faults or abnormalities, particularly after passing alert height or decision height, as applicable.

(5) Flight skill requirements—

(i) An applicant may conduct the practical test in an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought, or in an approved FSTD that—

(A) represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(B) is used in accordance with an approved course conducted by an ATO certified under these Requirements.

(ii) The practical test shall consist of at least two ILS approaches to 100 feet AGL, including one landing and one missed approach initiated from a very low altitude that may result in a touchdown during the go-around manoeuvre;

(iii) The applicant shall perform all approaches during the practical test with the approved automatic landing system or an equivalent landing system approved by the Authority;

(iv) If a multiengine aircraft with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the practical test shall include the performance of one missed approach with the most critical engine, if applicable, set at idle or zero thrust before reaching the middle or outer marker;

(v) If an approved multiengine FSTD 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) itical engine, if applicable, failed;

(vii) 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

(viii) Subject to the limitations of this paragraph, for Category IIIb operations predicated on the use of a fail-passive rollout control system, the applicant shall execute at least one manual rollout using visual reference or a combination of visual and instrument references. The applicant shall initiate this manoeuvre by a fail-passive disconnect of the rollout control system—

(A) After main gear touchdown;

(B) Prior to nose gear touchdown;

(C) In conditions representative of the most adverse lateral touchdown displacement allowing a safe landing on the runway; and

(D) In weather conditions anticipated in Category IIIb operations

(6) An inspector or evaluator may conduct oral questioning at any time during the practical test.

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

(a) A student pilot who is receiving training for solo flight shall receive and log flight training for the following manoeuvres and procedures, as applicable for each category and class rating as specified below:

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

IS 2.3.3.1.1 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING–

AEROPLANE CATEGORY

(a) A student pilot who is receiving training for solo flight in an aeroplane shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation and aircraft systems

(2) Taxiing, or surface operations, including runups

(3) Take-offs and landings, including normal and crosswind

(4) Straight and level flight and turns in both directions

(5) Climbs and climbing turns

(6) Airport traffic patterns including entry and departure procedures

(7) Collision avoidance, windshear avoidance and wake turbulence avoidance

(8) Descents, with and without turns, using high and low drag configurations

(9) Flight at various airspeeds from cruise to slow flight

(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall and recovery from a full stall

(11) Emergency procedures and equipment malfunctions

(12) Ground reference manoeuvres

(13) Approaches to a landing area with simulated engine malfunctions

(14) Slips to a landing (SE)

(15) Go-arounds

(b) Manoeuvres and procedures for cross-country flight training in an aeroplane

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass

(2) Use of aircraft performance charts pertaining to cross-country flight

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight

(4) Recognition, avoidance and operational restrictions of hazardous terrain features in the geographical area where the student pilot will conduct cross-country flight

(5) Use of radios for VFR navigation and two-way communications

(6) Climbs at best angle and best rate

(7) Control and manoeuvring solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids and ATC directives.

IS 2.3.3.1.2 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING–

HELICOPTER CATEGORY

(a) A student pilot who is receiving training for solo flight in a helicopter shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation and aircraft systems

(2) Taxiing, or surface operations, including run-up's

(3) Take-offs and landings, including normal and crosswind

(4) Straight and level flight and turns in both directions

(5) Climbs and climbing turns

(6) Airport traffic patterns including entry and departure procedures

(7) Collision avoidance, windshear avoidance and wake turbulence avoidance

(8) Descents, with and without turns, using high and low drag configurations

(9) Flight at various airspeeds

(10) Emergency procedures and equipment malfunctions

(11) Ground reference manoeuvres

(12) Approaches to the landing area

(13) Hovering and hovering turns

(14) Go-arounds

(15) Simulated emergency procedures, including autorotational descents with a power recovery and power recovery to hover

(16) Rapid decelerations

(17) Simulated one-engine-inoperative approaches and landings (ME)

(b) Manoeuvres and procedures for cross-country flight training in a helicopter:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass

(2) Use of aircraft performance charts pertaining to cross-country flight

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight

(4) Recognition, avoidance and operational restrictions of hazardous terrain features in the geographical area where the student pilot will conduct cross-country flight

(5) Use of radios for VFR navigation and two-way communications

(6) Climbs at best angle and best rate

(7) Control and manoeuvring solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids and ATC directives.

IS 2.3.3.1.3 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING–

POWERED–LIFT CATEGORY

(a) A student pilot who is receiving training for solo flight in a powered-lift shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation and aircraft systems

(2) Taxiing, or surface operations, including run-up's

(3) Take-offs and landings, including normal and crosswind

(4) Straight and level flight and turns in both directions

(5) Climbs and climbing turns

(6) Airport traffic patterns including entry and departure procedures

(7) Collision avoidance, windshear avoidance and wake turbulence avoidance

(8) Descents, with and without turns, using high and low drag configurations

(9) Flight at various airspeeds from cruise to slow flight

(10) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall

(11) Emergency procedures and equipment malfunctions

(12) Ground reference manoeuvres

(13) Approaches to the landing area with simulated engine failure

(14) Hovering and hovering turns

(15) Go-arounds

(16) Approaches to the landing area

(17) Simulated one-engine-inoperative approaches and landings (ME)

(b) Manoeuvres and procedures for cross-country flight training in a powered-lift:

(1) Use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass

(2) Use of aircraft performance charts pertaining to cross-country flight

(3) Procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight

(4) Recognition, avoidance and operational restrictions of hazardous terrain features in the geographical area where the student pilot will conduct cross-country flight

(5) Use of radios for VFR navigation and two-way communications

(6) Climbs at best angle and best rate

(7) Control and manoeuvring solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids and ATC directives.

IS 2.3.3.1.4 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING–

AIRSHIP CATEGORY

(a) A student pilot who is receiving training for solo flight in an airship shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, powerplant operation and aircraft systems;

(2) Taxiing, or surface operations, including run ups;

(3) Take-offs and landings, including normal and crosswind;

(4) Straight and level flight and turns in both directions;

(5) Climbs and climbing turns;

(6) Aerodrome traffic patterns including entry and departure procedures;

(7) Collision avoidance, windshear avoidance and wake turbulence avoidance;

(8) Descents, with and without turn;

(9) Flight at various airspeeds from cruise to slow flight;

(10) Emergency procedures and equipment malfunctions;

(11) Ground reference manoeuvres;

(12) Rigging, ballasting, and controlling pressure in the ballonets, and superheating; and

(13) Landings with positive and with negative static trim.

IS 2.3.3.1.5 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING–

BALLOON CATEGORY

(a) A student pilot who is receiving training for solo flight in a balloon shall receive and log flight training for the following manoeuvres and procedures:

(1) Layout and assembly procedures;

(2) Proper flight preparation procedures, including pre-flight planning and preparation, and aircraft systems;

(3) Ascents and descents;

(4) Landing and recovery procedures;

(5) Emergency procedures and equipment malfunctions;

(6) Operation of hot air or gas source, ballast, valves, vents, and rip panels as appropriate;

(7) Use of deflation valves or rip panels for simulating an emergency;

(8) The effects of wind on climb and approach angles; and

(9) Obstruction detection and avoidance techniques.

IS 2.3.3.1.6 STUDENT PILOTS – MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING–

GLIDER CATEGORY

(a) A student pilot who is receiving training for solo flight in a glider shall receive and log flight training for the following manoeuvres and procedures:

(1) Proper flight preparation procedures, including pre-flight planning and preparation, aircraft

systems, and is applicable, powerplant operations;

(2) Taxiing or surface operations, including runups, if applicable;

(3) Launches, including normal and crosswind;

(4) Straight and level flight, and turns in both directions, if applicable;

(5) Aerodrome traffic patterns, including entry procedures;

(6) Collision avoidance, windshear avoidance, and wake turbulence avoidance;

(7) Descents with and without turns using high and low drag configurations;

(8) Flight at various airspeeds;

(9) Emergency procedures and equipment malfunctions;

(10) Ground reference manoeuvres;

(11) Inspection of towline rigging and review of signals and release procedures, if applicable;

(12) Aerotow, ground tow, or self-launch procedures;

(13) Procedures for disassembly and assembly of the glider;

(14) Stall entry, stall, and stall recovery;

(15) Straight glides, turns, and spirals;

(16) Landings, including normal and crosswind;

(17) Slips to a landing;

(18) Procedures and techniques for thermalling; and

(19) Emergency operations, including towline break procedures.

IS 2.3.3.2 PRIVATE PILOT LICENCE– KNOWLEDGE INSTRUCTION AND TEST; FLIGHT INSTRUCTION AND SKILL TEST

IS 2.3.3.2.1 APPENDIX A: PRIVATE PILOT LICENCE (AEROPLANE CATEGORY) – KNOWLEDGE

(a) The knowledge instruction and test for the private pilot licence – aeroplane shall include at least the following subjects:

(1) Air law

(i) Relevant parts of the Guyana Civil Aviation Act, regulations and requirements issued under the Act.

(ii) ICAO Document 4444: General provisions, Area control service, Approach control service, Aerodrome control service Rules of the Air, Air Traffic Services procedures, Flight information and alerting service;

(iii) Relevant parts of the Guyana AIP

(2) Aircraft General Knowledge

(i) Airframe: Airframe structure and loads

(ii) Powerplant: engines general, engine cooling, engine lubrication, ignition systems, carburation, aero engine fuel, fuel systems, propellers, engine handling

(iii) Systems: electrical system, vacuum system

(iv) Instruments: Pitot/static system, Airspeed indicator, Altimeter, Vertical speed indicator, Gyroscopes, Turn indicator, Altitude indicator, Heading indicator, Magnetic compass, Engine instruments, Other instruments

(v) Airworthiness

(3) Flight Performance and Planning

(i) Mass and balance

(ii) Performance: Take-off, Landing, In flight

(4) Human performance:

(i) Basic physiology: Concepts, Effects of partial pressure, Vision, Hearing, Motion sickness, Flying and health, Toxic hazards

(ii) Basic psychology: The information process, the central decision channel, stress, judgement and decision making

(5) Meteorology

(i) The atmosphere, Pressure, density and temperature, Humidity and precipitation, Pressure and wind, Cloud information, Fog, mist and haze, Airmasses, Frontology, Ice accretion, Thunderstorms, Flight over mountainous areas, Climatology, Altimetry, The meteorological organisation, Weather analysis and forecasting, Weather information for flight planning, Meteorological broadcasts for aviation

(6) Navigation

(i) Form of the earth, mapping, conformal orthomorphic projection (ICAO 1.500.000 chart), Direction, Aeroplane magnetism, Distances, Charts in practical navigation, Chart reference material/map reading, Principles of navigation, The navigation computer, Time, Flight planning, Practical navigation

(ii) Radio navigation: Ground direction finding (D/F), automatic direction finding (ADF), including associated beacons (non directional beacons (NDBs) and use of the radio magnetic indicator (RMI), VHF omnidirectional range/distance measuring equipment (VOR/DME), GPS, Ground radar, Secondary surveillance radar

(iii) /distance measuring equipment (VOR/DME), GPS, Ground radar, Secondary surveillance radar

(7) Operational Procedures

(i) Relevant parts of ICAO Annex 6, Part II, Annex 12, 13 and 16 (relevant parts), Contravention of aviation regulations

(8) Principles of Flight

(i) The atmosphere, Airflow around a body, sub-sonic, Airflow about a two dimensional aerofoil, Three dimensional flow about an aerofoil, Distribution of the four forces, Flying controls, Trimming controls, Flaps and slats, The stall, Avoidance of spins, Stability, Load factor and manoeuvres, Stress loads on the ground

(9) Communications

(i) Radio telephony and communications, Departure procedures, En-route procedures, Arrival and traffic pattern procedures,

(ii) Communications failure, Distress and urgency procedures

IS 2.3.3.2.1 APPENDIX B: PRIVATE PILOT LICENCE (AEROPLANE CATEGORY) – FLIGHT INSTRUCTION AND SKILL TEST

(a) The flight instruction and skill test for the single-engine and multi-engine private pilot licence – aeroplane shall include at least the following areas of operation:

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

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

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Licences and documents

(ii) Airworthiness requirements

(iii) Weather information

(iv) Cross-country flight planning

(v) National airspace system

(vi) Performance and limitations

(vii) Operation of system

(viii) Principles of flight

(ix) Water and Seaplane Characteristics (S)

(x) Seaplane bases, maritime rules and aids to marine navigation (S)

(xi) Aeromedical factors

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Cockpit management

(iii) Engine Starting

(iv) Taxiing (L)

(v) Taxiing and Sailing (S)

(vi) Before take-off check

(3) Aerodrome and seaplane operations; including the applicant's knowledge and performance of the following tasks--

(i) Radio communications and ATC light signals

(ii) Traffic patterns

(iii) Aerodrome/Seaplane Base, runway and taxiway signs, markings and lighting

(4) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind take-off and climb

(ii) Normal and crosswind approach and landing

(iii) Soft-field take-off and climb (SE) (L)

(iv) Soft-field approach and landing (SE) (L)

(v) Short-field (Confined area (S)) take-off and maximum performance climb

(vi) Short-field approach (Confined area (S)) and landing

(vii) Glassy Water take-off and climb (S)

(viii) Glassy water approach and landing (S)

(ix) Rough water take-off and climb (S)

(x) Rough water approach and landing (S)

(xi) Forward slip to a landing (SE)

(xii) Go-around /rejected landing

(5) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks--

(i) Steep turns

(ii) Steep spirals

(6) Ground reference manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Rectangular course

(ii) S-turns

(iii) Turns around a point

(7) Navigation; including the applicant's knowledge and performance of the following tasks--

(i) Pilotage and dead reckoning

(ii) Navigation systems and radar services

(iii) Diversion

(iv) Lost procedures

(8) Slow flight and stalls; including the applicant's knowledge and performance of the following tasks-

(i) Manoeuvring during slow flight

(ii) Power-off stalls

(iii) Power-on stalls

(iv) Spin awareness

(9) Basic instrument manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Straight-and-level flight

(ii) Constant airspeed climbs

(iii) Constant airspeed descents

(iv) Turns to headings

(v) Recovery from unusual flight

(vi) Radio Communications, navigation systems/facilities and radar services; including the applicant's knowledge and performance of the following tasks—

(10) Emergency operations; including the applicant's knowledge and performance of the following tasks-

(i) Emergency approach and landing

(ii) Emergency descent (ME)

(iii) Engine failure during take-off before Vmc (simulated) (ME)

(iv) Engine failure after lift-off (simulated) (ME)

(v) Approach and landing with an inoperative engine (simulated) (ME)

(vi) Systems and equipment malfunctions

(vii) Emergency equipment and survival gear

(11) Multi-engine operations (ME); including the applicant's knowledge and performance of the following tasks--

(i) Manoeuvring with one engine inoperative

(ii) Vmc demonstration

(iii) Engine failure during flight (by reference to instruments)

(iv) Instrument approach – one engine inoperative (by reference to instruments)

(12) Night operation; including the applicant's knowledge and performance of the following tasks--

(i) Night preparation

(13) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) After landing, parking and securing

(ii) Anchoring (S)

(iii) Docking and mooring (S)

(iv) Ramping/Beaching (S)

IS 2.3.3.2.2 APPENDIX A: PRIVATE PILOT LICENCE (HELICOPTER CATEGORY) – KNOWLEDGE

(a) The knowledge instruction and test for the private pilot licence - helicopter shall include at least the following subjects:

(1) Air Law

(i) Relevant parts of ICAO Convention and Annexes 2, 7, 8, 11 and 14

(ii) ICAO Document 4444: General provisions, Area control service, Approach control service, Aerodrome control service, Flight information and alerting service

(iii) National law

(2) Aircraft General Knowledge

(i) Airframe: Rotors; Airframe structure and loads

(ii) Powerplant: Piston engine; Engines general, lubrication system, air cooling, ignition systems, engine fuel supply, engine performance, power augmentation devices, fuel, mixture, engine handling and manipulation, operational criteria,

(iii) Systems: electrical system, hydraulic system

(iv) Instruments: Pitot/static system, Airspeed indicator, Altimeter, Vertical speed indicator, Gyroscopes, Turn indicator, Altitude indicate, Heading indicator, Magnetic compass, Engine instruments, Other instruments

(v) Airworthiness

(3) Flight Performance and Planning

(i) Mass and balance

(ii) Performance: Take-off, Landing, In flight

(4) Human performance:

(i) Basic physiology: Concepts, Effects of partial pressure, Vision, Hearing, Motion sickness, Flying and health, Toxic hazards

(ii) Basic psychology: The information process, the central decision channel, stress, judgement and decision making

(5) Meteorology

(i) The atmosphere, Pressure, density and temperature, Humidity and precipitation, Pressure and wind, Cloud information, Fog, mist and haze, Airmasses, Frontology, Ice accretion, Thunderstorms, Flight over mountainous areas, Climatology, Altimetry, The meteorological organisation, Weather analysis and forecasting, Weather information for flight planning, Meteorological broadcasts for aviation

(6) Navigation

(i) Form of the earth, Mapping, Conformal conic projection, Direction, Helicopter magnetism, Distances, Charts in practical navigation, Chart reference material/map reading, Principles of navigation, The navigation computer, Time, Flight planning, Practical navigation

(7) Radio navigation: Ground directory finding (D/F), Automatic directory finding (ADF), including associated beacons (non directional beacons (NDBs)) and use of

the radio magnetic indicator (RMI), VHF omnidirectional range/distance measuring equipment (VOR/DME), GPS, Ground radar, Secondary surveillance radar

(8) Operational Procedures

(i) Relevant parts of ICAO Annex 6, Part III, Annex 12, 13 and 16 (relevant parts), Contravention of aviation regulations

(9) Principles of Flight

(i) The atmosphere, Airflow around a body, Sub-sonic, Airflow about a two dimensional aerofoil, Three dimensional flow about an aerofoil, Rotor aerodynamics, Flying controls, Stability, Load factor and manoeuvres, Stress loads on the ground, Helicopter specific hazards

(10) Communications

(i) Radio telephony and communications, Departure procedures, En-route procedures, Arrival and traffic pattern procedures,

(ii) Communications failure, Distress and urgency procedures

IS 2.3.3.2.2 APPENDIX B: PRIVATE PILOT LICENCE (HELICOPTER) – FLIGHT INSTRUCTION AND SKILL TEST

(a) The flight instruction and skill test for the private pilot licence - helicopter shall include at least the following areas of operation:

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Licences and documents

(ii) Weather information

(iii) Cross-country flight planning

(iv) National airspace system

(v) Performance and limitations

(vi) Operation of system

(vii) Minimum equipment list

(viii) Aeromedical factors

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Cockpit management

(iii) Engine Starting and rotor engagement

(iv) Before take-off check

(3) Aerodrome and heliport operations; including the applicant's knowledge and performance of the following tasks--

(i) Radio communications and ATC light signals

(ii) Traffic patterns

(iii) Aerodrome and heliport markings and lighting

(4) Hovering manoeuvres; including the applicant's knowledge and performance of the following tasks-

(i) Vertical take-off and landing

(ii) Slope operations

(iii) Surface taxi

(iv) Hover taxi

(v) Air taxi

(5) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind take-off and climb

(ii) Normal and crosswind approach

(iii) Maximum performance take-off and climb

(iv) Steep approach

(v) Rolling take-off

(vi) Shallow approach and running/roll-on landing

(vii) Go-around

(6) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks--

(i) Rapid deceleration

(ii) Straight in autorotation

(7) Navigation; including the applicant's knowledge and performance of the following tasks--

(i) Pilotage and dead reckoning

(ii) Radio navigation and radar services

(iii) Diversion

(iv) Lost procedures

(8) Emergency operations; including the applicant's knowledge and performance of the following tasks-

(i) Power failure at a hover

(ii) Power failure at altitude

(iii) Systems and equipment malfunctions

(iv) Settling-with-power

(v) Low rotor RPM recovery

(vi) Dynamic rollover

(vii) Ground resonance

(viii) Low G conditions

(ix) Emergency equipment and survival gear

(9) Night operation; including the applicant's knowledge and performance of the following tasks--

(i) Physiological aspects of night flying

(ii) Lighting and equipment for night flying

(10) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) After landing and securing

IS 2.3.3.2.3 APPENDIX A: PRIVATE PILOT LICENCE (POWERED-LIFT CATEGORY) – KNOWLEDGE

To be constructed

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

To be constructed

IS 2.3.3.2.4 APPENDIX A: PRIVATE PILOT LICENCE (AIRSHIP CATEGORY) – KNOWLEDGE

To be constructed

IS 2.3.3.2.4 APPENDIX B: PRIVATE PILOT LICENCE (AIRSHIP CATEGORY) – FLIGHT INSTRUCTION AND SKILL TEST

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

(1) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks–

(i) Certificates and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) National airspace system;

(v) Performance and limitations

(vi) Operation of systems;

(vii) Aeromedical factors.

(2) Pre-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Pre-flight inspection;

(ii) Cockpit management;

(iii) Engine starting;

(iv) Unmasting and positioning for takeoff

(v) Ground handling

(vi) Before takeoff check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following

tasks—

(i) Radio communications and ATC light signals;

(ii) Traffic patterns

(iii) Airport and runway markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks:

(i) Ground weigh-off;

(ii) Up-ship takeoff;

(iii) Wheel takeoff;

(iv) Approach and landing;

(v) Go-around.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Straight-and-level flight

(ii) Ascents and descents;

(iii) Level turns;

(iv) In-flight weigh-off

(v) Manual pressure control;

(vi) Static and dynamic trim.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the

following tasks—

(i) Rectangular course;

(ii) Turns around a point.

(7) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Pilotage and dead reckoning;

(ii) Navigation systems and radar services;

(iii) Diversion;

(iv) Lost procedures.

(8) Emergency operations, including the applicant's knowledge and performance of the following

tasks—

(i) Engine fire during flight;

(ii) Envelope emergencies

(iii) Free ballooning;

(iv) Ditching and emergency landing;

(v) Systems and equipment malfunctions.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Masting;

(ii) Post-masting.

IS 2.3.3.2.5 APPENDIX A: PRIVATE PILOT LICENCE (BALLOON CATEGORY) – KNOWLEDGE

To be constructed

IS 2.3.3.2.5 APPENDIX B: PRIVATE PILOT LICENCE (BALLOON CATEGORY) – FLIGHT INSTRUCTION AND SKILL TEST

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

(1) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks–

(i) Certificates and documents;

(ii) Weather information;

(iii) Flight planning;

(iv) National airspace system;

(v) Performance and limitations

(vi) Operation of systems;

(vii) Aeromedical factors.

(2) Pre-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Launch site selection;

(ii) Crew briefing and preparation;

(iii) Layout and assembly;

(iv) Pre-flight inspection

(v) Inflation;

(vi) Basket/gondola management;

(vii) Pre-launch check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications and ATC light signals;

(4) Launches and landing, including the applicant's knowledge and performance of the following tasks:

(i) Normal launch;

(ii) Launch over obstacle;

(iii) Approach to landing;

(iv) Normal landing;

(v) High-wind landing.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the following tasks—

(i) Ascents;

(ii) Altitude control (level flight);

(iii) Descents;

(iv) Contour flying;

(v) Obstacle clearance;

(vi) Tethering;

(vii) Winter flying;

(viii) Mountain flying.

(6) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Navigation.

(7) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Systems and equipment malfunctions;

(ii) Emergency equipment and survival gear;

(iii) Water landing;

(iv) Thermal flight.

(8) Post-flight procedures, including the applicant's knowledge and performance of the following tasks—

(i) Recovery;

(ii) Deflation and packing;

(iii) Refueling.

IS 2.3.3.2.6 APPENDIX A: PRIVATE PILOT LICENCE (GLIDER CATEGORY) – KNOWLEDGE

To be constructed

IS 2.3.3.2.6 APPENDIX B: PRIVATE PILOT LICENCE (GLIDER CATEGORY) – FLIGHT INSTRUCTION AND SKILL TEST

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

(1) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks–

(i) Licences and documents;

(ii) Weather information;

(iii) Operation of systems;

(iv) Performance and limitations;

(v) Aeromedical factors.

(2) Pre-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Assembly;

(ii) Ground handling;

(iii) Pre-flight inspection;

(iv) Cockpit management;

(v) Visual signals.

(3) Aerodrome and gliderport operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications;

(ii) Traffic patterns;

(iii) Aerodrome, runway, and taxiway signs, markings, and lighting.

(4) Launches– aero tow, including the applicant's knowledge and performance of the following

tasks:

(i) Before takeoff checks;

(ii) Normal and crosswind takeoff;

(iii) Maintaining tow positions;

(iv) Slack line;

(v) Boxing the wake;

(vi) Tow release;

(vii) Abnormal occurrences.

(5) Launches– ground tow, including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff check;

(ii) Normal and crosswind takeoff;

(iii) Abnormal occurrences.

(6) Launches– self-launch, including the applicant's knowledge and performance of the following tasks—

(i) Engine starting;

(ii) Taxiing;

(iii) Before takeoff check;

(iv) Normal and crosswind takeoff and climb;

(v) Engine shutdown in flight;

(vi) Abnormal occurrences.

(7) Landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal and cross wind landing;

(ii) Slips to landing;

(iii) Downwind landing.

(8) Performance airspeeds, including the applicant's knowledge and performance of the following

tasks—

(i) Minimum sink airspeed;

(ii) Speed-to-fly.

(9) Soaring techniques, including the applicant's knowledge and performance of the following

tasks—

(i) Thermal soaring;

(ii) Ridge and slope soaring;

(iii) Wave soaring.

(10) Performance manoeuvres, including the applicant's knowledge and performance of the

following tasks—

(i) Straight glides;

(ii) Turns to headings;

(iii) Steep turns.

(11) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Flight preparation and planning;

(ii) National airspace system.

(12) Slow flight and stalls, including the applicant's knowledge and performance of the following

tasks—

(i) Manoeuvring at minimum control airspeed;

(ii) Stall recognition and recovery.

(13) Emergency operations, including the applicant's knowledge and performance of the following

tasks—

(i) Simulated off-airport landing;

(ii) Emergency equipment and survival gear.

(14) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) After-landing and securing.

IS 2.3.3.3 COMMERCIAL PILOT LICENCE – KNOWLEDGE INSTRUCTION AND TEST; FLIGHT INSTRUCTION AND SKILL TEST

IS 2.3.3.3.1 APPENDIX A: COMMERCIAL PILOT LICENCE: AEROPLANE CATEGORY – KNOWLEDGE

(a) The knowledge instruction and test for the commercial pilot licence – aeroplane shall include at least the following subjects:

(1) Air law

(i) International Agreements and Organisations: The Convention of Chicago; Other International agreements: IATA agreement; Tokyo and Warsaw Convention; PIC authority and responsibility regarding safety and security; Operators and pilots liabilities towards persons and goods on the ground, in case of damage and injury caused by the operation of the aircraft, Commercial practices and associated rules, dry and wet lease;

(ii) Relevant parts of ICAO Annexes: 1. 2, 7, 8, 9, 11 (and doc 4444), 12, 13, 14, 15, 17;

(iii) Procedures for air navigation – aircraft operations Doc 8168;

(iv) National law

(2) Aircraft general knowledge

(i) Airframe and systems, electrics, powerplant, emergency equipment

(A) Airframe and systems: Fuselage, Cockpit and cabin windows, Wings, Stabilising surfaces, Landing Gear, Flight Controls, Hydraulics, Air driven systems (piston engines only), Air driven systems (turbopropeller and jet aircraft), Non-pneumatic operated de-ice and anti-ice systems, Fuel system;

(B) Electrics: Direct Current (DC), Alternating Current (AC), Semiconductors, Basic knowledge of computers; Basic radio propagation theory;

(C) Powerplant: Piston Engine, Turbine Engine, Engine construction, Engine systems, Auxiliary Power Unit (APU)

(D) Emergency equipment: Doors and emergency exits, Smoke detection, Fire detection, Fire fighting equipment, Aircraft oxygen equipment, Emergency equipment

(ii) Instrumentation

(A) Flight instruments: Air data instruments, Gyroscopic instruments, Magnetic Compass, Radio Altimeter, Electronic Flight Instrument System (EFIS),

(B) Automatic flight control system: Flight director, Autopilot, Yaw damper/Stability augmentation system,

(C) Warning and recording equipment: Warnings general; Stall warning,

(D) Powerplant and system monitoring instruments: Pressure gauge, Temperature gauge, RPM indicator, Consumption gauge, Fuel gauge, Torque meter, Flight hour meter, Vibration motoring, Remote (signal) transmission system, Electronic Displays

(3) Flight performance and planning

(i) Mass and balance: Centre of gravity, Mass and balance limits

(ii) Loading: Terminology, Aircraft mass checks, Procedures for determining aeroplane mass and balance documentation; Effects of overloading;

(iii) Centre of gravity: Basis of cg calculations (load and balance documentation), Calculation of cg; Securing of loading; Area load, running load, supporting

(iv) Performance of single-engine aeroplanes – Performance class B: Definitions of terms and speeds; Take-off and landing performance, Climb and cruise performance

(v) Performance of multi-engine aeroplanes: Definitions of terms and speeds; Importance of performance calculations; Elements of performance, Use of performance graphs and tabulated data

(vi) Flight planning and flight monitoring:

(A) Flight plan for cross country flights: Navigation plan, Fuel plan, Flight monitoring and in-flight replanning, Radio communication and navigation aids;

(B) ICAO ATC flight plan: Types of flight plan, Completing the flight plan, Filling the flight plan, Closing the flight plan, Adherence to flight plan

(C) Practical flight planning: Chart preparation; Navigation plans; Simple fuel plans, Radio planning practice

(D) Practical completion of a flight plan (flight plan, flight log, nav log, ATC plan, etc.): Extraction of data

(4) Human performance

(i) Human factors basic concepts: Human factors in aviation, Accident statistics, Flight safety concepts

(ii) Basic aviation physiology: Basics of flight physiology, Man and environment: the sensory system; Health and Hygiene;

(iii) Basic aviation psychology: Human information processing; Human error and reliability; Decision making; Avoiding and managing threats and errors :

cockpit management; Personality; Human overload and underload, Advanced cockpit automation

(5) Meteorology

(i) The atmosphere: Composition, extent, vertical division; Temperature; Atmospheric pressure; Atmospheric density; Altimetry;

(ii) Wind: Definition and measurement; General circulation; Turbulence; Variation of wind with height; Local winds; Standing waves;

(iii)Thermodynamics: Humidity;

(iv)Clouds and Fog: Cloud formation and description; Fog, mist, haze

(v) Precipitation

(vi)Airmasses and fronts: Types of airmasses; Fronts;

(vii) Pressure systems: Location of the principal pressure areas, Anticyclone, Non frontal depressions;

(viii) Climatology: Typical weather situations in mid-latitudes; Local seasonal weather and wind

(ix) Flight hazards: Icing, Turbulence; Windshear; Thunderstorms; Hazards in mountainous areas; Visibility reducing phenomena;

(x) Meteorological information: Observation, Weather charts, Information for flight planning

(6) Navigation:

(i) General Navigation: Basics of navigation: The solar system; The earth, Time and time conversions; Directions, Distance

(ii) Magnetism and compasses: General Principles, Aircraft magnetism, Knowledge of the principles, standby and landing or main compasses and remote reading compasses

(iii)Charts: General properties of miscellaneous types of projections; The representation of meridians, parallels, great circles and rhumb lines; The use of current aeronautical charts

(iv) Dead reckoning navigation (DR): Basics of dead reckoning; Use of the navigational computer; The triangle of velocities; Determination of DR position; Measurement of DR elements; Resolution of current DR problems; Measurements of maximum range, radius of action and point-of-safe-return and point-of-equal-time

(v) In-flight navigation: Use of visual observations and application to in-flight navigation; Navigation in climb and descent; Navigation in cruising flight, use of fixes to revise navigation data; Flight log (including navigation records);

(vi) og (including navigation records);

(vii) Radio Navigation: Radio aids: Ground D/F (including classification of bearings); ADF (including associated beacons and use of the radio magnetic indicator); VOR and Doppler-VOR (including the use of the radio magnetic indicator); DME (distance measuring equipment); Basic radar principles: SSR (secondary surveillance radar and transponder); Self-contained and external-referenced navigation systems: Satellite assisted navigation: GPS/GLONASS/DGPS

(7) Operational procedures

(i) ICAO Annex 6 Parts I, II and III (as applicable)

(ii) Special operational procedures and hazards: Minimum equipment list; Ground icing; Bird strike risk and avoidance; Noise abatement; Fire/smoke; Decompression of pressurised cabin; Windshear, microburst; Wake turbulance; Security; Emergency and precautionary landings; Fuel jettisoning; Transport of dangerous goods; Contaminated runways;

(8) Principles of flight:

(i) Basics, laws and definitions; The two-dimensional airflow about an aerofoil; The coefficients; The three-dimensional airflow about an aeroplane; The total drag; The ground effect; The relation between the lift coefficient and the speed for constant lift; The stall; Climax augmentation; Means to decrease the CL-CD ratio, increasing drag; The boundary layer;

(ii) Stability: Condition of equilibrium in stable horizontal flight; Methods of achieving balance; Longitudinal stability; Static directional stability; Static lateral stability; Dynamic lateral stability;

(iii)ic lateral stability; Dynamic lateral stability;

(iv)Control: General; Pitch control; Yaw control; Roll control; Interaction in different planes (yaw/roll); Means to reduce control forces; Mass balance; Trimming;

(v) Limitations: Operating limitations; Manoeuvring envelope; Gust envelope;

(vi)Propellers: Conversion of engine torque to thrust; Engine failure or engine stop; Design feature for power absorption; Moments and couples due to propeller operation;

(vii) Flight mechanics: Forces acting on an aeroplane; Asymmetric thrust; Emergency descent; Windshear;

(9) Radiotelephony:

(i) VFR Communications: Definitions; General operating procedures; Relevant weather information terms (VFR); Action required to be taken in case of communication failure; distress and urgency procedures; General principles of VHF propagation and allocation of frequencies;

(ii) Morse code.

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

(a) The flight instruction and skill test for the single-engine and multi-engine commercial pilot licence - aeroplane shall include at least the following areas of operation:

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

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

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Licences and documents

(ii) Airworthiness requirements

(iii) Weather information

(iv) Cross-country flight planning

(v) National airspace system

(vi) Performance and limitations

(vii) Operation of system

(viii) Principles of flight (ME)

(ix) Water and Seaplane characteristics (S)

(x) Seaplane bases, maritime rules and aids to marine navigation (S)

(xi) Aeromedical factors

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Cockpit management

(iii) Engine Starting

(iv) Taxiing (L)

(v) Taxiing and sailing (S)

(vi) Before take-off check

(3) Aerodrome and seaplane base operations; including the applicant's knowledge and performance of the following tasks--

(i) Radio communications and ATC light signals

(ii) Traffic patterns

(iii) Aerodrome/Seaplane base, runway and taxiway signs, markings and lighting

(4) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind take-off and climb

(ii) Normal and crosswind approach and landing

(iii)Soft-field take-off and climb (SE)

(iv)Soft-field approach and landing (SE)

(v) Short-field (Confined area (S)) take-off and maximum performance climb

(vi)Short-field (Confined area (S)) approach and landing

(vii) Glassy water take-off and climb (S)

(viii) Glassy water approach and landing (S)

(ix)Rough water take-off and climb (S)

(x) Rough water approach and landing (S)

(xi)Power-off 180 degrees accuracy approach and landing (SE)

(xii) Go-around /rejected landing

(5) Performance manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Steep turns

(ii) Steep spiral (SE)

(6) Ground reference manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Eights on pylons (SE)

(7) Navigation; including the applicant's knowledge and performance of the following tasks--

(i) Pilotage and dead reckoning

(ii) Navigation systems and radar services

(iii)Diversion

(iv) Lost procedures

(8) Slow flight and stalls; including the applicant's knowledge and performance of the following tasks--

(i) Manoeuvring during slow flight

(ii) Power-off stalls

(iii) Power-on stalls

(iv) Spin awareness

(9) Emergency operations; including the applicant's knowledge and performance of the following tasks-

(i) Emergency approach and landing

(ii) Emergency descent (ME)

(iii) Engine failure during take-off before Vmc (simulated) (ME)

(iv) Engine failure after lift-off (simulated) (ME)

(v) Approach and landing with an inoperative engine (simulated) (ME)

(vi) Systems and equipment malfunctions

(vii) Emergency equipment and survival gear

(10) High altitude operations; including the applicant's knowledge and performance of the following tasks--

(i) Supplemental oxygen

(ii) Pressurization

(11) Multi-engine operations (ME); including the applicant's knowledge and performance of the following tasks--

(i) Manoeuvring with one engine inoperative

(ii) Vmc demonstration

(iii) Engine failure during flight (by reference to instruments

(iv) Instrument approach – one engine inoperative (by reference to instruments)

(12) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) After landing, parking and securing

(ii) Anchoring (S)

(iii) Docking and mooring (S)

(iv) Ramping/beaching (S)

IS 2.3.3.3.2 APPENDIX A: COMMERCIAL PILOT LICENCE: HELICOPTER CATEGORY - KNOWLEDGE

(a) The knowledge instruction and test for the commercial pilot licence – helicopter shall include at least the following subjects:

(1) Air law

(i) International Agreements and Organisations: The Convention of Chicago; Other International agreements: IATA agreement, Tokyo and Warsaw Convention; PIC authority and responsibility regarding safety and security; Operators and pilots liabilities towards persons and goods on the ground; in case of damage and injury caused by the operation of the aircraft; Commercial practices and associated rules: dry and wet lease;

(ii) Relevant parts of ICAO Annexes: 1. 2. 7, 8, 9, 11 (and doc 4444), 12, 13, 14, 15, 17;

(iii)Procedures for air navigation – aircraft operations Doc 8168;

(iv)National law;

(2) Aircraft general knowledge

(i) Airframe and systems, electrics, powerplant; emergency equipment

(A) Airframe and systems: Helicopter configurations; Controls and rotors; Cockpit and cabin; Landing Gear; Transmission systems; Rotorbrake; Inspection; Hydraulics; Air driven systemsDe-ice and anti-ice systems, Fuel system

(B) Electrics: Direct Current (DC); Alternating Current (AC); Semiconductors; Basic knowledge of computers; Basic radio propagation theory;

(C) Powerplant: Piston Engine; Turbine Engine; Engine construction; Engine systems, Auxiliary Power Unitr (APU);

(D) Emergency equipment: Doors and emergency exits; Smoke detection; Fire detection; Fire fighting equipment; Aircraft oxygen equipment; Emergency equipment;

(ii) Instrumentation

(A) Flight instruments: Air data instruments; Gyroscopic instruments; Magnetic Compass; Radio Altimeter; Electronic Flight Instrument System (EFIS); Flight Management System (FMS);

(B) Automatic flight control system: Flight director, Autopilot; Flight envelope protection; Yaw damper/Stability augmentation system;

(C) Warning and recording equipment: Warnings general; Altitude alert system; Ground proximity warning system (GPWS); Traffic collision avoidance system (TCAS), Overspeed warning; Flight data recorder; Cockpit voice recorder; Rotors and engine over/underspeed warning;

(D) Powerplant and system monitoring instruments: Pressure gauge, Temperature gauge, RPM indicator, Consumption gauge; Fuel gauge; Torque meter; Flight hour meter; Remote (signal) transmission system; Electronic Displays; Chip detection;

(3) Flight performance and planning

(i) Mass and balance: Centre of gravity, Mass and balance limits;

(ii) Loading: Terminology; Aircraft mass checks; Procedures for determining helicopter mass and balance documentation; Effects of overloading;

(iii) Centre of gravity: Basis of cg calculations (load and balance documentation); Calculation of cg; Securing of load; Area load, running load, supporting;

(iv) Performance: Airworthiness Requirements; Definitions of terms; Take off – Cruise – Landing Performance;

(v) Flight planning and flight monitoring:

(A) Flight plan for cross country flights: Navigation plan; Fuel plan; Flight monitoring and in-flight replanning; Radio communication and navigation aids;

(B) ICAO ATC flight plan: Types of flight plan; Completing the flight plan; Filling the flight plan; Closing the flight plan; Adherence to flight plan;

(C) Practical flight planning: Chart preparation; Navigation plans; Simple fuel plans; Radio planning practice;

(D) Practical completion of a flight plan (flight plan, flight log, nav log, ATC plan, etc.): Extraction of data;

(E) Offshore or remote area operation: Additional flight planning aspects for offshore or remote area operation; Computerised flight planning;

(4) Human performance

(i) Human factors basic concepts: Human factors in aviation; Accident statistics; Flight safety concepts;

(ii) Basic aviation physiology: Basics of flight physiology; Man and environment: the sensory system; Health and Hygiene;

(iii) Basic aviation psychology: Human information processing; Human error and reliability; Decision making; Avoiding and managing threats and errors : cockpit management; Personality; Human overload and underload, Advanced cockpit automation

(5) Meteorology

(i) The atmosphere: Composition, extent, vertical division; Temperature; Atmospheric pressure; Atmospheric density; Altimetry;

(ii) Wind: Definition and measurement; General circulation; Turbulence; Variation of wind with height; Local winds; Standing waves;

(iii) Thermodynamics: Humidity; Change of state of aggregation; Adiabetic processes

(iv)Clouds and Fog: Cloud formation and description; Fog, mist, haze

(v) Precipitation

(vi)Airmasses and fronts: Types of airmasses; Fronts;

(vii) Pressure systems: Location of the principal pressure areas, Anticyclone, Non frontal depressions; Tropical revolving storms

(viii) Climatology: Climatology zones; Tropical climatology; Typical weather situations in mid-latitudes; Local seasonal weather and wind

(ix)Flight hazards: Icing, Turbulence; Windshear; Thunderstorms; Tornadoes; Low and high level inversions; Stratospheric conditions; Hazards in mountainous areas;

(x) Meteorological information: Observation, Weather charts, Information for flight planning

(6) Navigation:

(i) General Navigation: Basics of navigation: The solar system; The earth, Time and time conversions; Directions, Distance

(ii) Magnetism and compasses: General Principles, Aircraft magnetism, Knowledge of the principles, standby and landing or main compasses and remote reading compasses

(iii)Charts: General properties of miscellaneous types of projections; The representation of meridians, parallels, great circles and rhumb lines; The use of current aeronautical charts

(iv)Dead reckoning navigation (DR): Basics of dead reckoning; Use of the navigational computer; The triangle of velocities; Determination of DR position; Measurement of DR elements; Resolution of current DR problems; Measurements of maximum range, radius of action and point-of-safe-return and point-of-equal-time

(v) In-flight navigation: Use of visual observations and application to in-flight navigation; Navigation in climb and descent; Navigation in cruising flight, use of fixes to revise navigation data; Flight log (including navigation records); Purposes of FMS (flight management systems);

(vi) og (including navigation records); Purposes of FMS (flight management systems);

(vii) Radio Navigation: Radio aids: Ground D/F (including classification of bearings); ADF (including associated beacons and use of the radio magnetic indicator); VOR and Doppler-VOR (including the use of the radio magnetic indicator); DME (distance measuring equipment);

(viii) Basic radar principles: Pulse techniques and associated terms; Ground radar; SSR (secondary surveillance radar and transponder); Use of radar observations and application to in-flight navigation;

(ix) Area navigation systems: Flight director and autopilot coupling;

(x) Self-contained and external-referenced navigation systems: Doppler; Loran-C; Decca navigation system; Satellite assisted navigation: GPS/GLONASS/DGPS

(7) Operational procedures

(i) ICAO Annex 6 Parts I, II and III (as applicable);

(ii) Special operational procedures and hazards: Minimum equipment list; Ground icing; Bird strike risk and avoidance; Noise abatement; Fire/smoke; Windshear, microburst; Wake turbulance; Security; Emergency and precautionary landings; Fuel jettisoning; Transport of dangerous goods; Contaminated runways; Rotor down wash; Operation influence by meteorological conditions;

(iii) Emergency procedures;

(8) Principles of flight:

(i) Subsonic Aerodynamics: Basic laws and definitions; Derivation of lift; Drag; Distribution of forces – balance of couples; Stability; Blade-stall; Transonic effects on blades; Limitations; Performance degradation.

(ii) Helicopter aerodynamics: The helicopter and associated terminology; The forces diagram and associated terminology; Uniformity of rotor thrust along

blade span; Helicopter controls; Rotor blade freedom of movement; Phase lag and advance angle; Vertical flight; Forces in balance; Transitional lift; Power requirements; Further aerodynamics of forward flight; Factors affecting cyclic stick limits; The flare – power flight; Settling with power (vortex ring); Blade sailing; Autorotation – vertical; Autorotation - forward flight; Stability; Control power; Power requirements – graphs.

(9) Radiotelephony:

(i) VFR Communications: Definitions; General operating procedures; Relevant weather information terms (VFR); Action required to be taken in case of communication failure; distress and urgency procedures; General principles of VHF propagation and allocation of frequencies;

(ii) Morse code.

IS 2.3.3.3.2 APPENDIX B: COMMERCIAL PILOT LICENCE : HELICOPTER CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

(a) The flight instruction and skill test for the commercial pilot licence – helicopter shall include at least the following areas of operation:

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(iii) Licences and documents

(iv) Weather information

(v) Cross-country flight planning

(vi) National airpsace system

(vii) Performance and limitations

(viii) Operation of system

(ix) Minimum equipment list

(x) Aeromedical factors

(xi) Physiological aspects of night flying

(xii) Lighting and equipment for night flying

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Cockpit management

(iii)Engine Starting and rotor engagement

(iv)Before take-off check

(3) Aerodrome and heliport operations; including the applicant's knowledge and performance of the following tasks--

(i) Radio communications and ATC light signals

(ii) Traffic patterns

(iii)Aerodrome and heliport markings and lighting

(4) Hovering manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Vertical take-off and landing

(ii) Slope operations

(iii)Surface taxi

(iv)Hover taxi

(v) Air taxi

(5) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind take-off and climb

(ii) Normal and crosswind approach and landing

(iii)Maximum performance take-off and climb

(iv)Steep approach

(v) Rolling take-off

(vi)Shallow approach and running/roll-on landing

(vii) Go-around

(6) Performance manoeuvre; including the applicant's knowledge and performance of the following tasks--

(i) Rapid deceleration

(ii) 180 Degrees autorotation

(7) Navigation; including the applicant's knowledge and performance of the following tasks--

(i) Pilotage and dead reckoning

(ii) Radio navigation and radar services

(iii)Diversion

(iv)Lost procedures

(8) Emergency operations; including the applicant's knowledge and performance of the following tasks--

(i) Power failure at a hover

(ii) Power failure at altitude

(iii)Systems and equipment malfunctions

(iv)Settling-with-power

(v) Low rotor RPM recovery

(vi)Dynamic rollover

(vii) Ground resonance

(viii) Low G conditions

(ix)Emergency equipment and survival gear

(9) Special operations; including the applicant's knowledge and performance of the following tasks--

(i) Confined area operation

(ii) Pinnacle/platform operations

(10) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) After landing, parking and securing

IS 2.3.3.3.3 APPENDIX A: COMMERCIAL PILOT LICENCE: POWERED-LIFT CATEGORY - KNOWLEDGE

To be constructed

IS 2.3.3.3.3 APPENDIX B: COMMERCIAL PILOT LICENCE : POWERED-LIFT CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

To be constructed

IS 2.3.3.3.4 APPENDIX A: COMMERCIAL PILOT LICENCE: AIRSHIP CATEGORY - KNOWLEDGE

To be constructed

IS 2.3.3.3.4 APPENDIX B: COMMERCIAL PILOT LICENCE : AIRSHIP CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

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

(1) Pre-flight preparation, including the applicant's knowledge and performance of the following

tasks–

(i) Certificates and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) National airspace system;

(v) Performance and limitations

(vi) Operation of systems;

(vii) Aeromedical factors.

(2) Pre-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Pre-flight inspection;

(ii) Cockpit management;

(iii) Engine starting;

(iv) Unmasting and positioning for takeoff

(v) Ground handling

(vi) Before takeoff check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following

tasks—

(i) Radio communications and ATC light signals;

(ii) Traffic patterns

(iii) Airport and runway markings and lighting.

(4) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of
the following tasks:
(i) Ground weigh-off;
(ii) Up-ship takeoff;
(iii) Wheel takeoff;
(iv) Approach and landing;
(v) Go-around.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the
following tasks—
(i) Straight-and-level flight
(ii) Ascents and descents;
(iii) Level turns;
(iv) In-flight weigh-off
(v) Manual pressure control;
(vi) Static and dynamic trim.

(6) Ground reference manoeuvres, including the applicant's knowledge and performance of the
following tasks—
(i) Rectangular course;
(ii) Turns around a point.

(7) Navigation, including the applicant's knowledge and performance of the following tasks—
(i) Pilotage and dead reckoning;
(ii) Navigation systems and radar services;
(iii) Diversion;

(iv) Lost procedures.

(8) Emergency operations, including the applicant's knowledge and performance of the following

tasks—

(i) Engine fire during flight;

(ii) Envelope emergencies

(iii) Free ballooning;

(iv) Ditching and emergency landing;

(v) Systems and equipment malfunctions.

(9) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Masting;

(ii) Post-masting.

IS 2.3.3.3.5 APPENDIX A: COMMERCIAL PILOT LICENCE: BALLOON CATEGORY - KNOWLEDGE

To be constructed

IS 2.3.3.3.5 APPENDIX B: COMMERCIAL PILOT LICENCE : BALLOON CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

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

(1) Pre-flight preparation, including the applicant's knowledge and performance of the following

tasks–

(i) Certificates and documents;

(ii) Weather information;

(iii) Flight planning;

(iv) National airspace system;

(v) Performance and limitations

(vi) Operation of systems;

(vii) Aeromedical factors.

(2) Pre-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Launch site selection;

(ii) Crew briefing and preparation;

(iii) Layout and assembly;

(iv) Pre-flight inspection

(v) Inflation;

(vi) Basket/gondola management;

(vii) Pre-launch check.

(3) Aerodrome operations, including the applicant's knowledge and performance of the following

tasks—

(i) Radio communications and ATC light signals;

(4) Launches and landing, including the applicant's knowledge and performance of the following
tasks:
(i) Normal launch;
(ii) Launch over obstacle;
(iii) Approach to landing;
(iv) Normal landing;
(v) High-wind landing.

(5) Performance manoeuvres, including the applicant's knowledge and performance of the
following tasks—
(i) Ascents;
(ii) Altitude control (level flight);
(iii) Descents;
(iv) Contour flying;
(v) Obstacle clearance;
(vi) Tethering;
(vii) Winter flying;
(viii) Mountain flying.

(6) Navigation, including the applicant's knowledge and performance of the following tasks—
(i) Navigation.

(7) Emergency operations, including the applicant's knowledge and performance of the following
tasks—
(i) Systems and equipment malfunctions;
(ii) Emergency equipment and survival gear;
(iii) Water landing;
(iv) Thermal flight.

(8) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Recovery;

(ii) Deflation and packing;

(iii) Refueling.

IS 2.3.3.3.6 APPENDIX A: COMMERCIAL PILOT LICENCE: GLIDER CATEGORY - KNOWLEDGE

To be constructed

IS 2.3.3.3.6 APPENDIX B: COMMERCIAL PILOT LICENCE : GLIDER CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

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

(1) Pre-flight preparation, including the applicant's knowledge and performance of the following

tasks–

(i) Licences and documents;

(ii) Weather information;

(iii) Operation of systems;

(iv) Performance and limitations;

(v) Aeromedical factors.

(2) Pre-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Assembly;

(ii) Ground handling;

(iii) Pre-flight inspection;

(iv) Cockpit management;

(v) Visual signals.

(3) Aerodrome and gliderport operations, including the applicant's knowledge and performance of

the following tasks—

(i) Radio communications;

(ii) Traffic patterns;

(iii) Aerodrome, runway, and taxiway signs, markings, and lighting.

(4) Launches– aero tow, including the applicant's knowledge and performance of the following
tasks:
(i) Before takeoff checks;
(ii) Normal and crosswind takeoff;
(iii) Maintaining tow positions;
(iv) Slack line;
(v) Boxing the wake;
(vi) Tow release;
(vii) Abnormal occurrences.

(5) Launches– ground tow, including the applicant's knowledge and performance of the following tasks—
(i) Before takeoff check;
(ii) Normal and crosswind takeoff;
(iii) Abnormal occurrences.

(6) Launches– self-launch, including the applicant's knowledge and performance of the following tasks—
(i) Engine starting;
(ii) Taxiing;
(iii) Before takeoff check;
(iv) Normal and crosswind takeoff and climb;
(v) Engine shutdown in flight;
(vi) Abnormal occurrences.

(7) Landings, including the applicant's knowledge and performance of the following tasks—
(i) Normal and cross wind landing;
(ii) Slips to landing;
(iii) Downwind landing.

(8) Performance airspeeds, including the applicant's knowledge and performance of the following
tasks—
(i) Minimum sink airspeed;
(ii) Speed-to-fly.

(9) Soaring techniques, including the applicant's knowledge and performance of the following
tasks—
(i) Thermal soaring;
(ii) Ridge and slope soaring;
(iii) Wave soaring.

(10) Performance manoeuvres, including the applicant's knowledge and performance of the
following tasks—
(i) Straight glides;
(ii) Turns to headings;
(iii) Steep turns.

(11) Navigation, including the applicant's knowledge and performance of the following tasks—
(i) Flight preparation and planning;
(ii) National airspace system.

(12) Slow flight and stalls, including the applicant's knowledge and performance of the following
tasks—
(i) Manoeuvring at minimum control airspeed;
(ii) Stall recognition and recovery.

(13) Emergency operations, including the applicant's knowledge and performance of the following

tasks—

(i) Simulated off-aerodrome landing;

(ii) Emergency equipment and survival gear.

(14) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) After-landing and securing.

IS 2.3.3.4 APPENDIX A: REQUIREMENTS FOR THE ISSUE OF THE MULTI-CREW PILOT LICENCE (MPL)

(a) Training

(1) In order to meet the requirements of the multi-crew pilot licence in the aeroplane category, the applicant shall have completed an approved course. The training shall be competency-based and conducted in a multi-crew operational environment.

(2) During the training, the applicant shall have acquired the knowledge, skills and attitudes required as the underpinning attributes for performing as a co-pilot of a turbine-powered air transport aeroplane certificated for operation with a minimum crew of at least two pilots.

(b) *Assessment Level.*

(1) The applicant for a MPL in the appropriate aeroplane category shall have satisfactorily demonstrated performance in all the nine competency units specified in (c) below, at the advanced level of competency as defined in Appendix (B) below.

(c) *Competency units.*

(1) The nine competency units that an applicant has to demonstrate in accordance with 2.3.3.4(g) are as follows:

(i) apply threat and error management (TEM) principles;

(ii) perform aeroplane ground operations;

(iii)perform take-off;

(iv)perform climb;

(v) perform cruise;

(vi)perform descent;

(vii) perform approach;

(viii) perform landing; and

(ix)perform after landing and aeroplane post-flight operations.

Note 1: — Competency units are broken down into their constituent elements, for which specific performance criteria have been defined.

Note 2: — The application of threat and error management principles is a specific competency unit that is to be integrated with each of the other competency units for training and testing purposes.

(d) *Simulated Flight.*

(1) The flight simulation training devices used to gain the experience specified in these Requirements shall have been approved by the Authority.

(2) Flight simulation training devices shall be categorized as follows:

(i) Type I. E-training and part tasking devices approved by the GCAA that have the following characteristics:

a. involve accessories beyond those normally associated with desktop computers, such as functional replicas of a throttle quadrant, a sidestick controller, or an FMS keypad; and

b. involve a psychomotor activity with appropriate application of force and timing of responses.

(ii) Type II A flight simulation training device that represent a generic turbine powered

aeroplane.

Note: — This requirement can be met by a flight simulation training device equipped with a daylight visual system and otherwise meeting at a minimum the specifications equivalent to FAA FTD Level 5, or JAA FNPT II, MCC.

(iii)Type III A flight simulation training device that represents a multi-engine turbine powered

aeroplane certificated for a crew of two pilots with enhanced daylight visual system and equipped with an autopilot.

Note: — This requirement can be met by a flight simulation training device equipped with a daylight visual system and otherwise meeting at a minimum the specifications for a level B simulator as defined in JAR STD 1A, as amended; and in FAA AC 120-40B, as amended, including Alternate Means of Compliance (AMOC), as permitted in AC 120-40B.

(iv)Type IV Fully equivalent to a Level D Flight Simulator or to a Level C Flight Simulator with an enhanced daylight visual system.

Note: — Specifications for Level C and Level D simulator are defined in JAR STD 1A, as amended; and in FAA AC 120-40B, as amended, including Alternate Means of Compliance (AMOC), as permitted in AC 120-40B.

IS 2.3.3.4 APPENDIX B: MULTI-CREW PILOT LICENCE (MPL) FOR AEROPLANES –

(a) Levels of Competency

(1) *Core flying skills.* The level of competency at which the applicant shall have complied with the requirements for the private pilot licence specified in 2.3.3.2 including night flight requirements, and, in addition, have completed, smoothly and with accuracy, all procedures and manoeuvres related to upset training and flight with reference solely to instruments. From the outset, all training is conducted in an integrated multi-crew, competency based and threat and error management (TEM) environment. Initial training and instructional input levels are high as core skills are embedded in the ab initio application. Assessment at this level confirms that control of the aeroplane is maintained at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

(2) *Level 1 (Basic).* The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such a manner that if the successful outcome of a procedure or manoeuvre is in doubt, corrective action is taken. Performance in the generic cockpit environment does not yet consistently meet the Standards of knowledge, operational skills and level of achievement required in core competencies. Continual training input is required to meet an acceptable initial operating standard. Specific performance improvement/personal development plans will be agreed and the details recorded. Applicants will be continuously assessed as to their suitability to progress to further training and assessment in successive phases.

(3) *Level 2 (Intermediate).* The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such manner that the successful outcome of a procedure or manoeuvre is assured. The training received at Level 2 shall be conducted under the instrument flight rules, but need not be specific to any one type of aeroplane. On completion of Level 2, the applicant shall demonstrate levels of knowledge and operational skills that are adequate in the environment and achieves the basic standard in the core capability. Training support may be required with a specific development plan to maintain or

improve aircraft handling, behavioural performance in leadership or team management. Improvement and development to attain the Standard is the key performance objective. Any core competency assessed as less than satisfactory should include supporting evidence and a remedial plan.

(4) *Level 3 (Advanced).* The level of competency required to operate and interact as a co-pilot in a turbine-powered aeroplane certificated for operation with a minimum crew of at least two pilots, under visual and instrument conditions. Assessment confirms that control of the aeroplane or situation is maintained at all times in such a manner that the successful outcome of a procedure or manoeuvre is assured. The applicant shall consistently demonstrate the knowledge, skills and attitudes required for the safe operation of an applicable aeroplane type as specified in the performance criteria.

IS 2.3.3.5 AIRLINE TRANSPORT PILOT LICENCE – KNOWLEDGE INSTRUCTION AND TEST; FLIGHT INSTRUCTION AND SKILLTEST

IS 2.3.3.5.1 APPENDIX A: AIRLINE TRANSPORT PILOT LICENCE AEROPLANE CATEGORY – KNOWLEDGE

(a) The knowledge instruction and test for the airline transport pilot licence – aeroplane shall include at least the following subjects:

(1) Air law

(i) International Agreements and Organisations: The Convention of Chicago; Other International agreements: IATA agreement, Tokyo and Warsaw Convention; PIC authority and responsibility regarding safety and security; Operators and pilots liabilities towards persons and goods on the ground; in case of damage and injury caused by the operation of the aircraft; Commercial practices and associated rules: dry and wet lease;

(ii) Relevant parts of ICAO Annexes: 1. 2. 7, 8, 9, 11 (and doc 4444), 12, 13, 14, 15, 17;

(iii) Procedures for air navigation – aircraft operations Doc 8168;

(iv) National law;

(2) Aircraft general knowledge

(i) Airframe and systems, electrics, powerplant; emergency equipment

(A) Airframe and systems: Fuselage; Cockpit and cabin windows; Wings, Stabilising surfaces; Landing Gear; Flight Controls; Hydraulics; Air driven systems (piston

engines only); Air driven systems (turbopropeller and jet aircraft); Non-pneumatic operated de-ice and anti-ice systems; Fuel system;

(B) Electrics: Direct Current (DC); Alternating Current (AC); Semiconductors; Basic knowledge of computers; Basic radio propagation theory;

(C) Powerplant: Piston Engine; Turbine Engine; Engine construction; Engine systems, Auxiliary Power Unit (APU);

(D) Emergency equipment: Doors and emergency exits; Smoke detection; Fire detection; Fire fighting equipment; Aircraft oxygen equipment; Emergency equipment;

(ii) Instrumentation

(A) Flight instruments: Air data instruments; Gyroscopic instruments; Magnetic Compass; Radio Altimeter; Electronic Flight Instrument System (EFIS); Flight Management System (FMS);

(B) Automatic flight control system: Flight director, Autopilot; Flight envelope protection; Yaw damper/Stability augmentation system, Automatic pitch trim; Thrust computation, Auto-thrust;

(C) Warning and recording equipment: Warnings general; Altitude alert system; Ground proximity warning system (GPWS); Traffic collision avoidance system (TCAS), Overspeed warning; Stall warning, Flight data recorder; Cockpit voice recorder;

(D) Powerplant and system monitoring instruments: Pressure gauge, Temperature gauge, RPM indicator, Consumption gauge; Fuel gauge; Torque meter; Flight hour meter; Vibration motoring; Remote (signal) transmission system; Electronic Displays;

(3) Flight performance and planning

(i) Mass and balance: Centre of gravity, Mass and balance limits;

(ii) Loading: Terminology; Aircraft mass checks; Procedures for determining aeroplane mass and balance documentation; Effects of overloading;

(iii) Centre of gravity: Basis of cg calculations (load and balance documentation); Calculation of cg; Securing of loading; Area load; running load, supporting;

(iv) Performance of single-engine aeroplanes not certified under FAR/JAR 25 – Performance class B: Definitions of terms and speeds; Take-off and landing performance; Climb and cruise performance;

(v) Performance of multi-engine aeroplanes not certified under FAR/JAR 25 – Performance class B: Definitions of terms and speeds; Importance of performance calculations; Elements of performance, Use of performance graphs and tabulated data;

(vi) Performance of aeroplanes certified under FAR/JAR 25 – Performance class A: Take-off, Accelerate-stop distance, Initial Climb; Climb; Cruise; Descent and landing; Practical application of an airplane performance manual;

(vii) Flight planning and flight monitoring:

(A) Flight plan for cross country flights: Navigation plan; Fuel plan; Flight monitoring and in-flight replanning; Radio communication and navigation aids;

(B) ICAO ATC flight plan: Types of flight plan; Completing the flight plan; Filling the flight plan; Closing the flight plan; Adherence to flight plan;

(C) Practical flight planning: Chart preparation; Navigation plans; Simple fuel plans; Radio planning practice;

- *IFR (airways) flight planning: Meteorological considerations; Selection of routes to destination and alternates; General flight planning tasks;*

(D) Jet aeroplanes flight planning: Additional flight planning aspects for jet aeroplanes (advanced flight planning); Computerised flight planning;

(E) Practical completion of a flight plan (flight plan, flight log, nav log, ATC plan, etc.): Extraction of data;

(4) Human performance

(i) Human factors basic concepts: Human factors in aviation; Accident statistics; Flight safety concepts;

(ii) Basic aviation physiology: Basics of flight physiology; Man and environment: the sensory system; Health and Hygiene;

(iii) Basic aviation psychology: Human information processing; Human error and reliability; Decision making; Avoiding and managing threats and errors : cockpit management; Personality; Human overload and underload, Advanced cockpit automation

(5) Meteorology

(i) The atmosphere: Composition, extent, vertical division; Temperature; Atmospheric pressure; Atmospheric density; International Standard Atmosphere (ISA); Altimetry;

(ii) Wind: Definition and measurement; Primary cause of wind; General circulation; Turbulence; Variation of wind with height; Local winds; Jet streams; Standing waves;

(iii) Thermodynamics: Humidity; Change of state of aggregation; Adiabetic processes

(iv) Clouds and Fog: Cloud formation and description; Fog, mist, haze

(v) Precipitation: Development; Types;

(vi) Airmasses and fronts: Types of airmasses; Fronts;

(vii) Pressure systems: Location of the principal pressure areas, Anticyclone, Non frontal depressions; Tropical revolving storms

(viii) Climatolic: Climatology zones; Tropical climatology; Typical weather situations in mid-latitudes; Local seasonal weather and wind

(ix) Flight hazards: Icing, Turbulence; Windshear; Thunderstorms; Tornadoes; Low and high level inversions; Stratospheric conditions; Hazards in mountainous areas; Visibility reducing phenomena;

(x) Meteorological information: Observation, Weather charts, Information for flight planning

(6) Navigation:

(i) General Navigation: Basics of navigation: The solar system; The earth, Time and time conversions; Directions, Distance

(ii) Magnetism and compasses: General Principles, Aircraft magnetism, Knowledge of the principles, standby and landing or main compasses and remote reading compasses

(iii) Charts: General properties of miscellaneous types of projections; The representation of meridians, parallels, great circles and rhumb lines; The use of current aeronautical charts

(iv) Dead reckoning navigation (DR): Basics of dead reckoning; Use of the navigational computer; The triangle of velocities; Determination of DR position; Measurement of DR elements; Resolution of current DR problems; Measurements of maximum range, radius of action and point-of-safe-return and point-of-equal-time

(v) In-flight navigation: Use of visual observations and application to in-flight navigation; Navigation in climb and descent; Navigation in cruising flight, use of fixes to revise navigation data; Flight log (including navigation records); Purposes of FMS (flight management systems);

(vi) og (including navigation records); Purposes of FMS (flight management systems);

(vii) Inertial navigation systems (INS): Principles and practical application; Alignment procedures; Accuracy, reliability, errors and coverage, INS operation;

(viii) Radio Navigation: Radio aids: Ground D/F (including classification of bearings); ADF (including associated beacons and use of the radio magnetic indicator); VOR and Doppler-VOR (including the use of the radio magnetic indicator); DME (distance measuring equipment); ILS (instrument landing system); MLS (Microwave landing system);

(ix) Basic radar principles: Pulse techniques and associated terms; Ground radar; Airborne weather radar; SSR (secondary surveillance radar and transponder); Use of radar observations and application to in-flight navigation;

(x) d application to in-flight navigation;

(xi) Area navigation systems: General philosophy; Typical flight deck equipment and operation; Instrument indications; Types of area navigation system inputs; VOR/DME area navigation (RNAV); Flight director and autopilot coupling;

(xii) Self-contained and external-referenced navigation systems: Doppler; Loran-C; Decca navigation system; Satellite assisted navigation: GPS/GLONASS/DGPS

(7) Operational procedures

(i) ICAO Annex 6 Parts I, II and III (as applicable); Navigation requirements for long-range flights;

(ii) Special operational procedures and hazards: Minimum equipment list; Ground icing; Bird strike risk and avoidance; Noise abatement; Fire/smoke; Decompression of pressurised cabin; Windshear, microburst; Wake turbulance; Security; Emergency and precautionary landings; Fuel jettisoning; Transport of dangerous goods; Contaminated runways;

(8) Principles of flight:

(i) Basics, laws and definitions; The two-dimensional airflow about an aerofoil; The coefficients; The three-dimensional airflow about an aeroplane; The total drag; The ground effect; The relation between the lift coefficient and the speed for constant lift; The stall; Climax augmentation; Means to decrease the CL-CD ratio, increasing drag; The boundary layer; Special circumstances;

(ii) Transonic aerodynamics: The Mach number definition, Normal shockwaves; Means to avoid the effects of exceeding Mcrit

(iii) Supersonic aerodynamics: Oblique shockwaves

(iv) Stability: Condition of equilibrium in stable horizontal flight; Methods of achieving balance; Longitudinal stability; Static directional stability; Static lateral stability; Dynamic lateral stability;

(v) Control: General; Pitch control; Yaw control; Roll control; Interaction in different planes (yaw/roll); Means to reduce control forces; Mass balance; Trimming;

(vi) Limitations: Operating limitations; Manoeuvring envelope; Gust envelope;

(vii) Propellers: Conversion of engine torque to thrust; Engine failure or engine stop; Design feature for power absorption; Moments and couples due to propeller operation;

(viii) Flight mechanics: Forces acting on an aeroplane; Asymmetric thrust; Emergency descent; Windshear;

(9) Radiotelephony:

(i) VFR Communications: Definitions; General operating procedures; Relevant weather information terms (VFR); Action required to be taken in case of communication failure; distress and urgency procedures; General principles of VHF propagation and allocation of frequencies;

(ii) IFR Communications: Definitions; General operating procedures; Action required to betaken in case of communication failure; Distress and urgency

procedures; General principles of VHF propagation and allocation of frequencies;

(iii) Morse code.

IS 2.3.3.5.1 APPENDIX B: AIRLINE TRANSPORT PILOT LICENCE/TYPE RATING: AEROPLANE CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

(b) The flight instruction and skill test for the airline transport pilot licence - aeroplanes shall include CRM and at least the following areas of operation:

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Equipment examination

(ii) Performance and limitations

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Powerplant start

(iii) Taxiing

(iv) Before takeoff checks

(3) Take-offs and departure phase; including the applicant's knowledge and performance of the following tasks--

(i) Normal takeoffs with different flap settings, including expedited take-off

(ii) Instrument takeoff;

(iii) Powerplant failure during takeoff

(iv) Rejected takeoff

(v) Departure procedures

(4) In-flight manoeuvres; including the applicant's knowledge and performance of the following tasks—

(i) Steep turns

(ii) Approach to stalls

(iii) Powerplant failure

(iv) Specific flight characteristics

(v) Recovery from unusual altitudes.

(5) Instrument procedures; including the applicant's knowledge and performance of the following tasks-

(i) Standard terminal arrival/flight management system procedures

(ii) Holding procedures

(iii) Precision instrument approaches

(iv) Non-precision instrument approaches

(v) Circling approach

(vi) Missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.

(6) Landings and approaches to landings; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind approaches and landings

(ii) Landing from a precision approach

(iii) Approach and landing with (simulated) powerplant failure

(iv) Landing from a circling approach

(v) Rejected landing

(vi) Landing from a no-flap or a non-standard flap approach.

(7) Normal and abnormal procedures during all phases of flight, upset prevention and recovery.

(8) Abnormal and emergency procedures and manoeuvres in event of failures and malfunctions of equipment (powerplant, systems and airframe).

(9) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) After landing procedures

(ii) Parking and securing

IS 2.3.3.5.2 APPENDIX A: AIRLINE TRANSPORT PILOT LICENCE: HELICOPTER CATEGORY – KNOWLEDGE

(a) The knowledge instruction and test for the airline transport pilot licence – helicopter shall include at least the following subjects:

(1) Air law

(i) International Agreements and Organisations: The Convention of Chicago; Other International agreements: IATA agreement, Tokyo and Warsaw Convention; PIC authority and responsibility regarding safety and security; Operators and pilots liabilities towards persons and goods on the ground; in case of damage and injury caused by the operation of the aircraft; Commercial practices and associated rules: dry and wet lease;

(ii) Relevant parts of ICAO Annexes: 1. 2. 7, 8, 9, 11 (and doc 4444), 12, 13, 14, 15, 17;

(iii) Procedures for air navigation – aircraft operations Doc 8168;

(iv) National law;

(2) Aircraft general knowledge

(i) Airframe and systems, electrics, powerplant; emergency equipment

(A) Airframe and systems: Helicopter configurations; Controls and rotors; Cockpit and cabin; Landing Gear; Transmission systems; Rotorbrake; Inspection; Hydraulics; Air driven systems, De-ice and anti-ice systems, Fuel system

(B) Electrics: Direct Current (DC); Alternating Current (AC); Semiconductors; Basic knowledge of computers Basic radio propagation theory;

(C) Powerplant: Piston Engine; Turbine Engine; Engine construction; Engine systems, Auxiliary Power Unit (APU);

(D) Emergency equipment: Doors and emergency exits; Smoke detection; Fire detection; Fire fighting equipment; Aircraft oxygen equipment; Emergency equipment;

(ii) Instrumentation

(A) Flight instruments: Air data instruments; Gyroscopic instruments; Magnetic Compass; Radio Altimeter; Electronic Flight Instrument System (EFIS); Flight Management System (FMS);

(B) Automatic flight control system: Flight director, Autopilot; Flight envelope protection; Yaw damper/Stability augmentation system;

(C) Warning and recording equipment: Warnings general; Altitude alert system; Ground proximity warning system (GPWS); Traffic collision avoidance system (TCAS), Overspeed warning; Flight data recorder; Cockpit voice recorder; Rotors and engine over/underspeed warning;

(D) Powerplant and system monitoring instruments: Pressure gauge, Temperature gauge, RPM indicator, Consumption gauge; Fuel gauge; Torque meter; Flight hour meter; Remote (signal) transmission system; Electronic Displays; Chip detection;

(3) Flight performance and planning

(i) Mass and balance: Centre of gravity, Mass and balance limits;

(ii) Loading: Terminology; Aircraft mass checks; Procedures for determining helicopter mass and balance documentation; Effects of overloading;

(iii) Centre of gravity: Basis of cg calculations (load and balance documentation); Calculation of cg; Securing of load; Area load; running load, supporting;

(iv) Performance: Airworthiness Requirements; Definitions of terms; Take off – Cruise – Landing Performance;

(v) Flight planning and flight monitoring:

(A) Flight plan for cross country flights: Navigation plan; Fuel plan; Flight monitoring and in-flight replanning; Radio communication and navigation aids;

(B) ICAO ATC flight plan: Types of flight plan; Completing the flight plan; Filling the flight plan; Closing the flight plan; Adherence to flight plan;

(C) Practical flight planning: Chart preparation; Navigation plans; Simple fuel plans; Radio planning practice;

(D) IFR (airways) flight planning: Meteorological considerations; Selection of routes to destination and alternates; General flight planning tasks;

Note: This subsection is only part of the instruction, test or check when an instrument rating is required.

(E) Practical completion of a flight plan (flight plan, flight log, nav log, ATC plan, etc.): Extraction of data;

(F) Offshore or remote area operation: Additional flight planning aspects for offshore or remote area operation; Computerised flight planning;

(4) Human performance

(i) Human factors basic concepts: Human factors in aviation; Accident statistics; Flight safety concepts;

(ii) Basic aviation physiology: Basics of flight physiology; Man and environment: the sensory system; Health and Hygiene;

(iii) Basic aviation psychology: Human information processing; Human error and reliability; Decision making; Avoiding and managing threats and errors : cockpit management; Personality; Human overload and underload, Advanced cockpit automation

(5) Meteorology

(i) The atmosphere: Composition, extent, vertical division; Temperature; Atmospheric pressure; Atmospheric density; Altimetry;

(ii) Wind: Definition and measurement; General circulation; Turbulence; Variation of wind with height; Local winds; Jet streams; Standing waves;

(iii) Thermodynamics: Humidity; Change of state of aggregation; Adiabetic processes

(iv) Clouds and Fog: Cloud formation and description; Fog, mist, haze

(v) Precipitation

(vi) Airmasses and fronts: Types of airmasses; Fronts;

(vii) Pressure systems: Location of the principal pressure areas, Anticyclone, Non frontal depressions; Tropical revolving storms

(viii) Climatology: Climatology zones; Tropical climatology; Typical weather situations in mid-latitudes; Local seasonal weather and wind

(ix) Flight hazards: Icing, Turbulence; Windshear; Thunderstorms; Tornadoes; Low and high level inversions; Stratospheric conditions; Hazards in mountainous areas;

(x) Meteorological information: Observation, Weather charts, Information for flight planning

(6) Navigation:

(i) General Navigation: Basics of navigation: The solar system; The earth, Time and time conversions; Directions, Distance

(ii) Magnetism and compasses: General Principles, Aircraft magnetism, Knowledge of the principles, standby and landing or main compasses and remote reading compasses

(iii)Charts: General properties of miscellaneous types of projections; The representation of meridians, parallels, great circles and rhumb lines; The use of current aeronautical charts

(iv)Dead reckoning navigation (DR): Basics of dead reckoning; Use of the navigational computer; The triangle of velocities; Determination of DR position; Measurement of DR elements; Resolution of current DR problems; Measurements of maximum range, radius of action and point-of-safe-return and point-of-equal-time

(v) In-flight navigation: Use of visual observations and application to in-flight navigation; Navigation in climb and descent; Navigation in cruising flight, use of fixes to revise navigation data; Flight log (including navigation records); Purposes of FMS (flight management systems);

(vi)og (including navigation records); Purposes of FMS (flight management systems);

(vii) Radio Navigation: Radio aids: Ground D/F (including classification of bearings); ADF (including associated beacons and use of the radio magnetic indicator); VOR and Doppler-VOR (including the use of the radio magnetic indicator); DME (distance measuring equipment); ILS (instrument landing system); MLS (Microwave landing system);

(viii) Basic radar principles: Pulse techniques and associated terms; Ground radar; Airborne weather radar; SSR (secondary surveillance radar and transponder); Use of radar observations and application to in-flight navigation;

(ix)d application to in-flight navigation;

(x) Area navigation systems: General philosophy; Typical flight deck equipment and operation; Instrument indications; Types of area navigation system inputs; VOR/DME area navigation (RNAV); Flight director and autopilot coupling

(xi) Area navigation systems: General philosophy; Typical flight deck equipment and operation; Instrument indications; Types of area navigation system inputs; VOR/DME area navigation (RNAV); Flight director and autopilot coupling

Note: Typical flight deck equipment and operation; Instrument indications; and Types of area navigation system inputs are only part of the instruction, test or check when an instrument rating is required.

(xii) Self-contained and external-referenced navigation systems: Doppler; Loran-C; Decca navigation system; Satellite assisted navigation: GPS/GLONASS/DGPS

(7) Operational procedures

(i) ICAO Annex 6 Parts I, II and III (as applicable);

(ii) Special operational procedures and hazards: Minimum equipment list; Ground icing; Bird strike risk and avoidance; Noise abatement; Fire/smoke; Windshear, microburst; Wake turbulance; Security; Emergency and precautionary landings; Fuel jettisoning; Transport of dangerous goods; Contaminated runways;

(8) Principles of flight:

(i) Subsonic Aerodynamics: Basic laws and definitions; Derivation of lift; Drag; Distribution of forces – balance of couples; Stability; Blade-stall; Transonic effects on blades; Limitations; Performance degradation;

(ii) Helicopter aerodynamics: The helicopter and associated terminology; The forces diagram and associated terminology; Uniformity of rotor thrust along blade span; Helicopter controls; Rotor blade freedom of movement; Phase lag and advance angle; Vertical flight; Forces in balance; Transitional lift; Power requirements; Further aerodynamics of forward flight; Factors affecting cyclic stick limits; The flare – power flight; Settling with power (vortex ring); Blade sailing; Autorotation – vertical; Autorotation - forward flight; Stability; Control power; Power requirements – graphs;

(9) Radiotelephony:

(i) VFR Communications: Definitions; General operating procedures; Relevant weather information terms (VFR); Action required to be taken in case of communication failure; distress and urgency procedures; General principles of VHF propagation and allocation of frequencies;

(ii) IFR Communications: Definitions; General operating procedures; Action required to be taken in case of communication failure; distress and urgency procedures; General principles of VHF propagation and allocation of frequencies;

Note: This subsection is only part of the instruction, test or check when an instrument rating is required.

(iii)Morse code.

IS 2.3.3.5.2 APPENDIX B: AIRLINE TRANSPORT PILOT LICENCE/TYPE RATING: HELICOPTER CATEGORY - FLIGHT INSTRUCTION AND SKILL TEST

(a) The flight instruction and skill test for the airline transport pilot licence for helicopters shall include CRM and at least the following areas of operation:

(1) Pre-flight preparations and checks; including the applicant's knowledge and performance of the following tasks--

(i) Equipment examination

(ii) Performance and limitations

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Powerplant startt

(iii) Taxiing

(iv) Pre-takeoff checks

(3) Takeoff and departure phase; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind takeoff

(ii) Instrument takeoff

(iii)Powerplant failure during takeoff

(iv)Rejected takeoff

(v) Instrument departure

(4) In-flight manoeuvres; including the applicant's knowledge and performance of the following tasks-

(i) Steep turns

(ii) Powerplant failure-multi-engine helicopter

(iii)Powerplant failure-single-engine helicopter

(iv)Recovery from unusual altitudes

(v) Settling with power

(5) Instrument procedures; including the applicant's knowledge and performance of the following tasks-

(i) Instrument arrival

(ii) Holding

(iii)Precision instrument approaches

(iv)Non-precision instrument approaches

(v) Missed approach

(6) Landings and approaches to landings; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind approaches and landings

(ii) Approach and landing with simulated powerplant failure-multiengine helicopter

(iii)Rejected landing

(7) Normal and abnormal procedures; including the applicant's knowledge and performance of the tasks.

(8) Emergency procedures and manoeuvres in the event of failures and malfunctions of equipment (powerplant, systems and airframe)

(9) Postflight procedures; including the applicant's knowledge and performance of the following tasks--

(i) After landing procedures

(ii) Parking and securing

IS 2.3.3.5.3 : AIRLINE TRANSPORT PILOT LICENCE: POWERED-LIFT CATEGORY CATEGORY

To be constructed

IS 2.3.3.6 APPENDIX A: INSTRUMENT RATING AEROPLANE, HELICOPTER AND POWERED-LIFT CATEGORIES - KNOWLEDGE

(a) The knowledge instruction and test for the instrument rating – aeroplane and helicopter shall include at least the following subjects:

(1) Air law

(i) International Agreements and Organisations: The Convention of Chicago; Other International agreements: IATA agreement, Tokyo and Warsaw Convention; PIC authority and responsibility regarding safety and security, Operators and pilots liabilities towards persons and goods on the ground, in case of damage and injury caused by the operation of the aircraft, Commercial practices and associated rules: dry and wet lease

(ii) Relevant parts of ICAO Annexes: 1. 2. 7, 8, 9, 11 (and doc 4444), 12, 13, 14, 15;

(iii) Procedures for air navigation – aircraft operations Doc 8168;

(iv) National law

(2) Aircraft general knowledge

(i) Airframe and systems, electrics, powerplant, emergency equipment

(A) Airframe and systems: Air driven systems (piston engines only), Air driven systems (turbopropeller and jet aircraft), Non-pneumatic operated de-ice and anti-ice systems, Fuel systems

(B) Electrics: Direct Current (DC), Basic radio propagation theory

(C) Flight instruments: Air data instruments, Gyroscopic instruments, Magnetic Compass, Radio Altimeter, Electronic Flight Instrument System (EFIS), Flight Management System (FMS)

(D) Automatic flight control system: Flight director; Autopilot; Yaw damper/Stability augmentation system;

(E) Warning and recording equipment: Warnings general; Stall warning;

(3) Flight performance and planning

(i) Flight planning and flight monitoring:

(A) Flight plan for cross country flights: Navigation plan, Fuel plan, Flight monitoring and in-flight replanning, Radio communication and navigation aids;

(B) ICAO ATC flight plan: Types of flight plan, Completing the flight plan, Filling the flight plan, Closing the flight plan, Adherence to flight plan

(C) Practical flight planning: Chart preparation; Navigation plans; Simple fuel plans, Radio planning practice

(D) IFR (airways) flight planning: Meteorological considerations, Selection of routes to destination and alternates, General flight planning tasks,

(E) Practical completion of a flight plan (flight plan, flight log, nav log, ATC plan, etc.): Extraction of data

(4) Human performance

(i) Human factors basic concepts: Human factors in aviation, Accident statistics, Flight safety concepts

(ii) Basic aviation physiology: Basics of flight physiology, Man and environment: the sensory system; Health and Hygiene;

(iii) Basic aviation psychology: Human information processing; Human error and reliability; Decision making; Avoiding and managing threats and errors : cockpit management; Personality; Human overload and underload, Advanced cockpit automation

(5) Meteorology

(i) The atmosphere: Composition, extent, vertical division; Temperature; Atmospheric pressure; Atmospheric density; Altimetry;

(ii) Wind: Definition and measurement; General circulation; Turbulence; Variation of wind with height; Local winds; Standing waves;

(iii)Thermodynamics: Humidity; Change of state of aggregation; Adiabetic processes

(iv)Clouds and Fog: Cloud formation and description; Fog, mist, haze

(v) Precipitation: Development and types of precipitation;

(vi)Airmasses and fronts: Types of airmasses; Fronts;

(vii) Pressure systems: Location of the principal pressure areas, Anticyclone, Non frontal depressions;

(viii) Climatology: Typical weather situations in mid-latitudes; Local seasonal weather and wind

(ix)Flight hazards: Icing, Turbulence; Windshear; Thunderstorms; Low and high level inversions; Hazards in mountainous areas;

(x) Meteorological information: Observation, Weather charts, Information for flight planning

(6) Navigation:

(i) General Navigation:

(ii) Charts: The use of current aeronautical charts

(iii)Radio Navigation: Radio aids: Ground D/F (including classification of bearings); ADF (including associated beacons and use of the radio magnetic indicator); VOR and Doppler-VOR (including the use of the radio magnetic indicator); DME (distance measuring equipment); ILS (instrument landing system); MLS (Microwave landing system);

(iv)Basic radar principles: Pulse techniques and associated terms; Ground radar; Airborne weather radar; SSR (secondary surveillance radar and transponder); Use of radar observations and application to in-flight navigation;

(v) d application to in-flight navigation;

(vi)Area navigation systems: General philosophy; Typical flight deck equipment and operation; Instrument indications; Types of area navigation system inputs; VOR/DME area navigation (RNAV);

(vii) Self-contained and external-referenced navigation systems: Satellite assisted navigation: GPS/GLONASS/DGPS

(7) Operational procedures

(i) General

(ii) Special operational procedures and hazards: General

(8) Radiotelephony:

(i) IFR Communications: Definitions; General operating procedures; Action required to betaken in case of communication failure; distress and urgency procedures; General principles of VHF propagation and allocation of frequencies; morse code.

IS 2.3.3.6 APPENDIX B: INSTRUMENT RATING: AEROPLANE, HELICOPTER AND POWERED-LIFT CATEGORIES - FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

(a) The flight instruction, skill test and proficiency check for the instrument rating – aeroplane, helicopter and powered-lift shall include at least the following areas of operation:

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

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Weather information

(ii) Cross-country flight planning

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Aircraft systems related to IFR operations

(ii) Aircraft flight instruments and navigation equipment

(iii)Instrument cockpit check

(3) Air traffic control clearances and procedures; including the applicant's knowledge and performance of the following tasks--

(i) Air traffic control clearances

(ii) Compliance with departure, en route and arrival procedures and clearances

(iii)Holding procedures

(4) Flight by reference to instruments; including the applicant's knowledge and performance of the following tasks--

(i) Straight-and-level flight

(ii) Change of airspeed

(iii)Constant airspeed climbs and descents

(iv)Rate climbs and descents

(v) Timed turns to magnetic compass headings

(vi)Steep turns

(vii) Recovery from unusual flight attitudes

(5) Navigation systems; including the applicant's knowledge and performance of the following tasks--

(i) Intercepting and tracking navigational systems and DME Arcs

(6) Instrument approach procedures; including the applicant's knowledge and performance of the following tasks--

(i) Non-precision instrument approach

(ii) Precision ILS instrument approach

(iii)Missed approach

(iv)Circling approach

(v) Landing from a straight-in or circling approach

(7) Emergency operations; including the applicant's knowledge and performance of the following tasks-

(i) Loss of communications

(ii) One engine inoperative during straight-and-level flight and turns (ME)

(iii)One engine inoperative – instrument approach (ME)

(iv) Loss of gyro attitude and/or heading indicators

(8) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) Checking instruments and equipment

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

Notes:

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

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

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

(a) The flight instruction, skill test and proficiency check for the flight instructor rating - aeroplane shall include at least the following areas of operation:

(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)Aircraft flight controls

(v) Aircraft weight and balance

(vi)Navigation and flight planning

(vii) Night operations

(viii) High altitude operations (A)

(ix)Regulations and publications

(x) Use of minimum equipment list

(xi)National airspace system

(xii) Navigation aids and radar services (A)

(xiii) Logbook entries and licence endorsements

(xiv)Water and seaplane characteristics (S)

(xv) Seaplane bases, rules and aids to marine navigation (S)

(3) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Licences and documents

(ii) Weather information

(iii)Operation of systems (SE)

(iv)Performance and limitations (SE)

(v) Airworthiness requirements

(4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--

(i) Manoeuvre lesson

(5) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection

(ii) Cockpit management

(iii)Engine starting (A)

(iv)Engine starting and rotor engagement (H)

(v) Taxiing (A)

(vi)Sailing (S)

(vii) Before take-off check

(6) Aerodrome and seaplane base operations; including the applicant's knowledge and performance of the following tasks--

(i) Radio communications and ATC light signals

(ii) Traffic patterns

(iii)Aerodrome and runway markings and lighting

(7) Take-offs, landings and go-arounds; including the applicant's knowledge and performance of the following tasks--

(i) Normal and crosswind take-off and climb

(ii) Take-off and maximum performance climb

(iii)Short field (Confined area (S)) take-off and maximum performance climb

(iv)Soft field take-off and climb (SE)

(v) Glossy water take-off and climb (S)

(vi)Rough water take-off and climb (S)

(vii) Normal and crosswind approach and landing

(viii) Slip to a landing (SE)

(ix)Go-around/rejected landing

(x) Short field (Confined area (S)) approach and landing

(xi)Glassy water approach and landing (S)

(xii) Rough water approach and landing (S)

(xiii) Soft field approach and landing (SE)

(xiv)Power-off 180 degrees accuracy approach and landing

(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)

(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

(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 (SE)

(12) Basic instrument manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Straight-and-level flight

(ii) Constant airspeed climbs

(iii)Constant airspeed descents

(iv)Turns to headings

(v) Recovery from unusual flight attitudes

(13) Emergency operations (SE); including the applicant's knowledge and performance of the following tasks--

(i) Emergency approach and landing (simulated)

(ii) Systems and equipment malfunctions

(iii)Emergency equipment and survival gear

(14) (Emergency operations (ME); including the applicant's knowledge and performance of the following tasks--

(i) Systems and equipment malfunctions

(ii) Engine failure during take-off before Vmc

(iii)Engine failure after lift-off

(iv)Approach and landing with an inoperative engine

(v) Emergency descent

(vi)Emergency equipment and survival gear

(15) Multi-engine operations (ME); including the applicant's knowledge and performance of the following tasks--

(i) Operation of systems

(ii) Performance and limitations

(iii)Flight principles – engine inoperative

(iv)Manoeuvring with one engine inoperative

(v) Vmc demonstration

(vi)Demonstrating the effects of various airspeeds and configurations during engine inoperative performance

(16) Post-flight procedures; including the applicant's knowledge and performance of the following tasks-

(i) Post-flight procedures

(ii) Anchoring

(iii)Docking and mooring

(iv)Beaching

(v) Ramping

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

(a) The flight instruction, skill test and proficiency check for the flight instructor rating - helicopter shall include at least the following areas of operation with CRM competencies applied and evident in all tasks appropriate to the category, and if applicable, class or type, of aircraft::

(1) Fundamentals of instruction; including the applicant's knowledge and performance of the

following tasks--

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--

(i) Aero medical factors;

(ii) Visual Scanning and collision avoidance;

(iii) Use of distractions during flight training;

(iv) Principles of flight;

(v) Helicopter flight controls;

(vi) Helicopter weight and balance;

(vii) Navigation and flight planning;

(viii) Night operations;

(ix) Regulations and publications;

(x) Use of minimum equipment list;

(xi) National airspace system;

(xii) Logbook entries and licence endorsements;

(3) Pre-flight preparation; including the applicant's knowledge and performance of the following

tasks--

(i) Licences and documents;

(ii) Weather information;

(iii) Operation of systems;

(iv) Performance and limitations;

(v) Airworthiness requirements.

(4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--

(i) Manoeuvre lesson.

(5) Pre-flight procedures; including the applicant's knowledge and performance of the following

tasks--

(i) Pre-flight inspection;

(ii) Cockpit management;

(iii) Engine starting and rotor engagement;

(iv) Before take-off check

(6) Aerodrome operations and Heliport operations; including the applicant's knowledge and

performance of the following tasks--

(i) Radio communications and ATC light signals;

(ii) Traffic patterns;

(iii) Aerodrome and Heliport Markings and lighting

(7) Hovering Manoeuvres; including the applicant's knowledge and performance of the following

tasks-

(i) Vertical take-off and landing;

(ii) Surface taxi;

(iii) Hover taxi;

(iv) Air taxi;

(v) Slope operation.

(8) Takeoffs, landings and go-arounds, including the applicant's knowledge and performance of the following tasks—

(i) Normal and crosswind takeoff and climb;

(ii) Maximum performance takeoff and climb

(iii) Rolling takeoff;

(iv) Normal and crosswind approach;

(v) Steep approach;

(vi) Shallow approach and running/roll-on landing;

(viii) Go-around.

(9) Fundamentals of flight; including the applicant's knowledge and performance of the following

tasks-

(i) Straight-and-level flight;

(ii) Level turns;

(iii) Straight climbs and climbing turns;

(iv) Straight descents and descending turns.

(10) Performance manoeuvres; including the applicant's knowledge and performance of the following tasks--

(i) Rapid deceleration

(ii) Straight-in autorotation

(iii) 180 degrees autorotation

(11) Emergency operations; including the applicant's knowledge and performance of the following tasks-

(i) Power failure at a hover;

(ii) Power failure at altitude;

(iii) Settling-with-power;

(iv) Low rotor RPM recovery;

(v) Antitorque system failure;

(vi) Dynamic rollover;

(vii) Ground resonance;

(viii) Low "G" conditions;

(ix) Systems and equipment malfunctions;

(x) Emergency equipment and survival gear.

(12) Special operations; including the applicant's knowledge and performance of the following tasks--

(i) Confined area operation;

(ii) Pinnacle/platform operation.

(13) Post-flight procedures; including the applicant's knowledge and performance of the following

tasks-

(i) After-landing and securing.

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

To be constructed

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

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

(1) Fundamentals of instruction; including the applicant's knowledge and performance of the
following tasks--

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance;

(iii) Use of distractions during flight training;

(iv) Principles of flight;

(v) Airship weight-off, ballast, and trim;

(vi) Night operations;

(vii) Regulations and publications;

(viii) National airspace system;

(ix) Logbook entries and licence endorsement.

(3) Pre-flight preparation, including the applicant's knowledge and performance of the following

tasks—

(i) Licences and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) Performance and limitations;

(v) Operations of systems.

(4) Pre-flight lesson on a manoeuvre to be performed in flight, including the applicant's and

performance of the following tasks—

(i) Manoeuvre lesson.

(5) Pre-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Pre-flight inspection;

(ii) Cockpit management;

(iii) Engine starting;

(iv) Unmasting and positioning for takeoff;

(v) Ground handling;

(vi) Before takeoff check.

(6) Aerodrome operations, including the applicant's knowledge and performance f the following

tasks—

(i) Radio communications;

(ii) Traffic pattern operations;

(iii) Aerodrome, runway and taxiway markings and lighting.

(7) Performance manoeuvres, including the applicant's knowledge and performance of the

following tasks—

(i) Flight to, from, and at pressure height;

(ii) In-flight weigh-off;

(iii) Manual pressure control;

(iv) Static and dynamic trim.

(8) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Pilotage and dead reckoning;

(ii) Diversion;

(iii) Lost procedures;

(iv) Navigation systems and air traffic control radar services.

(9) Basic instrument manoeuvres, including the applicant's knowledge and performance of the

following tasks—

(i) Straight-and level flight;

(ii) Constant airspeed climbs;

(iii) Constant airspeed descents;

(iv) Turns to headings;

(v) Recovery from unusual flight attitudes.

(10) Emergency operations, including the applicant's knowledge and performance of the following

tasks—

(i) Aborted takeoff;

(ii) Engine failure during takeoff;

(iii) Engine failure during flight

(iv) Engine fire during flight

(v) Envelope emergencies;

(vi) Free ballooning;

(vii) Ditching and emergency landing;

(viii) Systems and equipment malfunctions.

(11) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Masting;

(ii) Post-masting.

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

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

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

(1) Fundamentals of instruction; including the applicant's knowledge and performance of the

following tasks--

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance;

(iii) Use of distractions during flight training;

(iv) Principles of flight;

(v) Regulations and publications;

(vi) National airspace system;

(vii) Logbook entries and licence endorsement.

(3) Pre-flight preparation, including the applicant's knowledge and performance of the following tasks—

(i) Licences and documents;

(ii) Weather information;

(iii) Cross-country flight planning;

(iv) Performance and limitations;

(v) Operations of systems.

(4) Pre-flight lesson on a manoeuvre to be performed in flight, including the applicant's knowledge and

performance of the following tasks—

(i) Manoeuvre lesson.

(5) Pre-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Launch site selection;

(ii) Crew briefing and preparation;

(iii) Layout and assembly;

(iv) Pre-flight inspection;

(v) Inflation;

(vi) Basket/gondola management

(vii) Pre-launch check.

(6) Aerodrome operations, including the applicant's knowledge and performance of the following tasks—

(i) Radio communications;

(7) Launches and landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal launch;

(ii) Launch over obstacle;

(iii) Approach to landing;

(iv) Steep approach to landing;

(v) Normal landing;

(vi) High-wind landing.

(8) Performance manoeuvres, including the applicant's knowledge and performance of the

following tasks—

(i) Ascents;

(ii) Altitude control (level flight);

(iii)Descents;

(iv) Rapid ascent and descent;

(v) Contour flying (BH);

(vi) High altitude flight; (BG)

(vii) Obstacle avoidance (BH);

(viii) Tethering (BH);

(ix) Mountain flying.

(9) Navigation, including the applicant's knowledge and performance of the following tasks—

(i) Navigation.

(10) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Systems and equipment malfunctions;

(ii) Emergency equipment and survival gear;

(iii) Water landing;

(iv) Thermal flight.

(11) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) Recovery;

(ii) Deflation and pack-up;

(iii) Refueling (BH).

IS 2.3.4.2.6 FLIGHT INSTRUCTOR: GLIDER CATEGORY – FLIGHT INSTRUCTION, SKILL TEST AND PROFICIENCY CHECK

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

(1) Fundamentals of instruction; including the applicant's knowledge and performance of the

following tasks--

(i) The learning process;

(ii) The teaching process;

(iii) Teaching methods;

(iv) Evaluation;

(v) Flight instructor characteristics and responsibilities;

(vi) Human factors;

(vii) Planning instructional activity.

(2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--

(i) Aeromedical factors;

(ii) Visual Scanning and collision avoidance;

(iii) Use of distractions during flight training;

(iv) Principles of flight;

(v) Elevators, ailerons, and rudder;

(vi) Trim, lift and drag devices;

(vii) Glider weight and balance;

(viii) Navigation and flight planning;

(ix) Regulations and publications;

(x) National airspace system;

(xi) Logbook entries and licence endorsements.

(3) Pre-flight preparation; including the applicant's knowledge and performance of the following

tasks--

(i) Licences and documents;

(ii) Weather information;

(iii) Operation of systems;

(iv) Performance and limitations.

(4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--

(i) Manoeuvre lesson.

(5) Pre-flight procedures; including the applicant's knowledge and performance of the following

tasks--

(i) Assembly;

(ii) Ground handling;

(iii) Pre-flight inspection;

(iv) Cockpit management;

(v) Visual signals.

(6) Aerodrome operations and gliderport operations; including the applicant's knowledge and

performance of the following tasks--

(i) Radio communications;

(ii) Traffic patterns;

(iii) Aerodrome, runway, and taxiway signs, markings and lighting.

(7) Launches– aero tow, including the applicant's knowledge and performance of the following tasks:

(i) Before takeoff checks;

(ii) Normal and crosswind takeoff;

(iii) Maintaining tow positions;

(iv) Slack line;

(v) Boxing the wake;

(vi) Tow release;

(vii) Abnormal occurrences.

(8) Launches– ground tow (auto or winch), including the applicant's knowledge and performance of the following tasks—

(i) Before takeoff check;

(ii) Normal and crosswind takeoff;

(iii) Abnormal occurrences.

(9) Launches– self-launch, including the applicant's knowledge and performance of the following tasks—

(i) Engine starting;

(ii) Taxiing;

(iii) Before takeoff check;

(iv) Normal and crosswind takeoff and climb;

(v) Engine shutdown in flight;

(vi) Abnormal occurrences.

(10) Landings, including the applicant's knowledge and performance of the following tasks—

(i) Normal and cross wind landing;

(ii) Slips to landing;

(iii) Downwind landing.

(11) Fundamentals of flight, including the applicant's knowledge and performance of the following tasks—

(i) Straight glides;

(ii) Turns to headings.

(12) Performance airspeeds, including the applicant's knowledge and performance of the following tasks—

(i) Minimum sink airspeed;

(ii) Speed-to-fly.

(13) Soaring techniques, including the applicant's knowledge and performance of the following

tasks—

(i) Thermal soaring;

(ii) Ridge and slope soaring;

(iii) Wave soaring.

(14) Performance manoeuvres, including the applicant's knowledge and performance of the

following tasks—

(i) Steep turns

(ii) Recovery from a spiral dive.

(15) Slow flight and stalls, including the applicant's knowledge and performance of the following

tasks—

(i) Manoeuvring at minimum control airspeed;

(ii) Stall recognition and recovery;

(iii) Spins.

(16) Emergency operations, including the applicant's knowledge and performance of the following tasks—

(i) Simulated off-aerodrome landing;

(ii) Emergency equipment and survival gear.

(17) Post-flight procedures, including the applicant's knowledge and performance of the following

tasks—

(i) After-landing and securing.

IS 2.3.4.2.7 Flight instructor for instrument ratings: Aeroplane, helicopter and powered-lift categories

– Flight instruction, skill test and proficiency check

(a) The flight instruction, skill test and proficiency checks for the flight instructor for instrument ratings – aeroplane, helicopter and powered-lift shall include at least the following areas of operation:

Notes:

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

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

l three categories.

(1) Fundamentals of instructing; including the applicant's knowledge and performance of the following tasks--

(i) The learning process

(ii) Human behaviour and effective communication

(iii) The teaching process

(iv) Teaching methods

(v) Critique and evaluation

(vi) Flight instructor characteristics and responsibilities

(vii) Planning instructional activity

(2) Technical subject areas; including the applicant's knowledge and performance of the following tasks--

(i) Aircraft flight instruments and navigation equipment

(ii) Aeromedical factors

(iii) Regulations and publications related to IFR operations

(iv) Logbook entries related to instrument instruction

(3) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Weather information

(ii) Cross-country flight planning

(iii) Instrument cockpit check

(4) Pre-flight lesson on a manoeuvre to be performed in flight; including the applicant's knowledge and performance of the following task--

(i) Manoeuvre lesson

(5) Air traffic control clearances and procedures; including the applicant's knowledge and performance of the following tasks--

(i) Air traffic control clearances

(ii) Compliance with departure, en-route and arrival procedures and clearances

(6) Flight by reference to instruments; including the applicant's knowledge and performance of the following tasks--

(i) Straight-and-level flight

(ii) Turns

(iii) Change of airspeed in straight-and-level and turning flight

(iv) Constant airspeed climbs and descents

(v) Constant rate climbs and descents

(vi) Timed turns to magnetic compass headings

(vii) Steep turns

(viii) Recovery from unusual flight altitudes

(7) Navigation systems; including the applicant's knowledge and performance of the following tasks--

(i) Intercepting and tracking navigational systems and DME Arcs

(ii) Holding procedures

(8) Instrument approach procedures; including the applicant's knowledge and performance of the following tasks--

(i) Non-precision instrument approach

(ii) Precision instrument approach

(iii) Missed approach

(iv) Circling approach (A, PL)

(v) Landing from a straight-in approach

(9) Emergency operations; including the applicant's knowledge and performance of the following tasks-

(i) Loss of communications

(ii) Loss of gyro attitude and heading indicators

(iii) Engine failure during straight-and-level flight and turns

(iv) Instrument approach – one engine inoperative

(10) Post-flight procedures; including the applicant's knowledge and performance of the following task--

(i) Checking instruments and equipment

IS 2.3.4.2.8 Instructor rating for additional type ratings – Flight instruction, skill test and proficiency check

(a) The flight instruction, skill test and proficiency checks for instructors for additional type ratings - aeroplane and helicopter shall include at least the following areas of operation:

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

(1) Technical subject areas

(i) The content of the technical subject areas shall cover the areas as applicable to the aircraft class or type.

(ii) Flight simulator; including the applicant's knowledge and performance of the following tasks--

(A) Use of checklist, setting of radios/navigation aids

(B) Starting engines

(C) Take-off checks

(D) Instrument take-off, transition to instruments after lift off

(E) Engine failure during take-ff between V1 and V2 (Aeroplane)

(F) Aborted take-off prior to reaching V1 (A)

(G) High mach buffeting, specific flight characteristics (if necessary) (A)

(H) Take-off with engine failure prior to TDP or DPATO or shortly after TDP or DPATO (Helicopter)

(I) Steep turns

(J) Recovery from approach to stall/take-off, clean landing configuration (Aeroplane)

(K) Instrument approach to required minimum decision height or minimum descent height/altitude, manual one engine simulated inoperative during approach and landing or go-around (Aeroplane)

(L) Instrument approach to required minimum decision height or minimum descent height/altitude, autopilot one engine simulated inoperative during approach and landing or go-around (Helicopter)

(M) Rejected landing and go-around

(N) Crosswind landing

(iii) Category II and 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) Take-off

(E) Engine failure during take-off short after V2, after reaching climb out attitude (Aeroplane)

(F) Engine failure during take-off short after TDP or DPATO after reaching climb out attitude (Helicopter)

(G) Other emergency procedures (if necessary)

(H) Instrument approaches to required minimum decision height, manual one engine out during approach and landing or go-around

(I) One engine simulated inoperative go-around from required minimum decision height

(J) One engine (critical) simulated inoperative landing

IS 2.3.4.2 FLIGHT INSTRUCTOR LIMITATIONS AND QUALIFICATIONS

(a) Each holder of a flight instructor rating shall observe the following limitations and qualifications.

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

(2) Required licence and ratings. A flight instructor may not conduct flight training in any aircraft

for which the flight instructor does not hold a pilot license and flight instructor rating with the applicable category and if applicable class or type rating.

(3) For instrument flight training or for training for a type rating not limited to VFR, an appropriate instrument rating on his or her flight instructor rating and pilot license.

(4) Limitations on endorsements. A flight instructor may not endorse a—

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

(A) Given that student the flight training required for solo flight privileges required by these Requirements;

(B) Determined that the student is prepared to conduct the flight safely under known

circumstances, subject to any limitations listed in the student's logbook that the instructor considers necessary for the safety of the flight;

(C) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and

(D) Endorsed the student pilot's logbook for the specific make and model aircraft to be flown.

(ii) Student pilot's license and logbook for a solo cross-country flight, unless that flight instructor has determined that—

(A) The student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and

(B) The student has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown.

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

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

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

(iv) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of IS: 2.3.3.6.

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

model of multiengine aeroplane or helicopter, as appropriate.

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

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

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

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

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

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

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

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

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

IS 2.3.5 DESIGNATED FLIGHT TEST EXAMINERS

(a) The ground training for designated flight test examiners shall at least include:

(1) Examiner duties, functions and responsibilities

(2) Applicable regulations and procedures;

(3) Appropriate methods, procedures and techniques for conducting the required tests and checks;

(4) Proper evaluation of student performance including the detection of:

(i) Improper and insufficient training, and

(ii) Personal characteristics of an applicant that could adversely affect safety;

(5) Appropriate corrective action in the case of unsatisfactory tests and checks; and

(6) Approved methods, procedures and limitations for performing the required normal, abnormal and emergency procedures in the aircraft.

(b) The flight training shall include:

(1) Training and practice in conducting flight evaluation (from the left and right pilot seats for pilot examiners) in the required normal, abnormal and emergency procedures to ensure competence to conduct the flight tests and checks;

(2) The potential results of improper, untimely or non-execution of safety measures during an evaluation; and

(3) The safety measures (to be taken from either pilot seat for pilot check examiners) for emergency situations that are likely to develop during an evaluation.

(c) The flight training for designated flight test examiners (FSTD) shall include:

(1) Training and practice in conducting flight checks in the required normal, abnormal and emergency procedures to ensure competence to conduct the evaluations tests and checks required by these Requirements (this training and practice shall be accomplished in an FSTD, a flight procedures trainer or flight training device).

(2) Training in the operation of FSTDs, flight procedures trainers, or flight training devices, or in all three, to ensure competence to conduct the evaluations required by these Requirements.

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

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

(1) Pre-flight preparation; including the applicant's knowledge and performance of the following tasks--

(i) Equipment examination-systems knowledge

(ii) Aircraft handbooks, manuals, minimum equipment list (MEL), configuration deviation list (CDL) and operations specifications

(iii)Performance and limitations

(2) Pre-flight procedures; including the applicant's knowledge and performance of the following tasks--

(i) Pre-flight inspection and cockpit setup

(ii) Pre-flight inspection-exterior

(3) Ground operations; including the applicant's knowledge and performance of the following tasks--

(i) Powerplant start

(ii) Taxi and pre-takeoff checks

(4) Normal procedures; including the applicant's knowledge and performance of the following tasks--

(i) Take-off

(ii) In-flight

(iii)During approach and landing

(iv)Engine systems monitoring

(5) Abnormal and emergency procedures; including the applicant's knowledge and performance of the following tasks--

(i) Take-off

(ii) In-flight

(iii)During approach and landing

(iv)Engine systems monitoring

(6) Postflight procedures

(i) After landing

(ii) Parking and securing

IS 2.6.2.7. AIRCRAFT MAINTENANCE ENGINEER LICENCE: SKILL TEST

The skill tests cover the applicants skill in performing the practical projects on the subjects covered by the written test for that rating. The applicant will be provided with appropriate facilities, tools, materials and airworthiness data as appropriate.

(a) 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) lines and fittings

(3) materials and processes

(4) ground operations and servicing

(5) cleaning and corrosion control

(6) mathematics

(7) maintenance forms and records

(8) maintenance publications

(9) physics

(10) mechanic privileges and limitations

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

(a) The skill test for the airframe rating shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) assembly and rigging

(2) airframe inspection

(3) aircraft landing gear systems

(4) hydraulic and pneumatic systems

(5) cabin atmosphere control systems

(6) aircraft instrument systems

(7) communication and navigation systems

(8) fuel systems

(9) aircraft electrical systems

(10) position and warning systems

(11) ice and rain control systems

(12) fire protection systems

(13) Job/task documentation and control practices.

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

(a) The skill test for the powerplant rating shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) powerplant electrical systems

(2) lubrication systems

(3) ignition and starting systems

(4) fuel metering

(5) engine fuel systems

(6) induction and engine airflow systems

(7) engine cooling systems

(8) engine exhaust and reverser systems

(9) propellers

(10) auxiliary power units

(11) Job/task documentation and control practices.

IS 2.6.2.7.(C). SKILL REQUIREMENTS FOR THE AME AVIONICS RATING.

(a) The skill test for the avionics rating shall test the applicant's knowledge and performance in the basic workshop and maintenance practices in at least the following areas of operation:

(1) Avionics – electrical

(2) Avionics – instrument

(3) Avionics – autoflight

(4) Avionics – radio

(5) Repair, maintenance and function testing of aircraft systems/components – avionics

(6) Job/task documentation and control practices.

IS 2.8.3 FLIGHT OPERATIONS OFFICER: SKILL TEST REQUIREMENTS

(a) The skill test for the flight operations officer licence shall test the applicant's knowledge and performance in at least the following areas of operation:

(1) Flight planning/dispatch release, including the applicant's knowledge and performance of the

following—

(i) Regulatory requirements;

(ii) Meteorology

(iii) Weather observations, analysis, and forecasts

(iv) Weather related hazards;

(v) Aircraft systems, performance, and limitations;

(vi) Navigation and aircraft navigation systems;

(vii) Practical dispatch applications;

(viii) Manuals, handbooks and other written guidance.

(2) Pre-flight, takeoff, and departure, including the applicants' knowledge and performance of the following—

(i) Air traffic control procedures;

(ii) Aerodrome, crew, and company procedures.

(3) In-flight procedures, including the applicants' knowledge and performance of the following—

(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—

(i) Air traffic control and air navigation procedures.

(5) Post flight procedures, including the applicants' knowledge and performance of the following—

(i) Communication procedures and requirements;

(ii) Trip records.

(6) Abnormal and emergency procedures, including the applicants' knowledge and performance of the following—

(i) Abnormal and emergency procedures.

IS 2.10.1.3 TRAINING IN AVIATION MEDICINE FOR CAMES.

(a) The training for CAMEs in aviation medicine shall include at least the following:

(1) Flight crew and ATCO working environment

(2) Physics of atmosphere and space

(3) Basic aeronautical knowledge

(4) Aviation Physiology

(5) Opthalmology

(6) Otorinolaryngology

(7) Cardiology and general medicine

(8) Neurology

(9) Psychiatry in aviation medicine

(10) Dentistry

(11) Accidents, Escape and Survival

(12) Legislation, rules and regulations

(13) Air evacuation

(14) Medicine and flying

(15) Human factors in aviation

(16) Hygiene

Made this 16th day of May 2024.

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Director-General
For the Guyana Civil Aviation Authority