



**Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity**

**Ministry of Public Works and Transport
Department of Civil Aviation**

LAO CIVIL AVIATION REGULATIONS

(LCAR)

PART 2 – PERSONNEL LICENSING

1st Revision

September 2013

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PREAMBLE

The Department of Civil Aviation of Lao PDR, under the Decision of Minister of Public Works and Transport number 16948/MPWT regarding the authorization for signing all regulations, provisions of government management over flight safety, aviation security and standards of services in civil aviation sector, approves the updated technical regulations Part 2.

This regulation supersede the requirements of LCAR Part 9 issued in May 2010 and become effective on 01 March 2014.

This Part provides requirements dealing with:

- ▶ Personnel Licensing.

This part consist of 11 chapters.

Adopted by Director General

Department of Civil Aviation of Lao PDR

Dated: 01 MAR 2014



RECORD OF AMENDMENTS

Location	Date	Description
2.1.1.2 (1)		Added definition: Accredited medical conclusion
2.1.1.2 (2)		Added definition: Aeroplane
2.1.1.2 (3)		Added definition: Aircraft
2.2		
2.1.1.2 (6)		Added definition: Aircraft avionics
2.1.1.2 (20)		Error. Changed definition: “Error “removed “flightcrew” from text Inserted “operational person”
2.1.1.2 (20)		Error. Added a new explanatory note
2.1.1.2 (21)		Error management. Added a new explanatory note "Error management"
2.1.1.2 (22)		Added definition: Examiner
2.1.1.2 (29)		Licensing Authority. Added a new explanatory note
2.1.1.2 (30)		Medical Assessment. Added definition: Medical Assessment
2.1.1.2 (31)		Medical Assessor. Added definition: Medical Assessor and explanatory note
2.1.1.2 (32)		Medical Examiner. Added definition.
2.1.1.2 (33)		Medical certificate. Changed definition: Medical certificate – equivalent of a medical assessment
2.1.1.2 (39)		Editorial
2.1.1.2(42)		Rating. Added definition.
2.1.1.2 (47)		Added definition: Safety Management System
2.1.1.2(48)		Significant. Added definition.
2.1.1.2 (49)		Added definition: State Safety Programme
2.1.1.2 (51)		Added a new explanatory note "Threat"
2.1.1.2 (52)		Added a new explanatory note "Threat management"
2.1.1.2 (53)		Deleted definition: Undesired aircraft state
2.2.1.2		Editorial change
2.2.3.1		Changed reference
2.2.4.1(c)		Added MPL to narrative and table
2.2.4.2 (a)		Editorial change
2.2.4.2(a)(1)(iv)		Changed knowledge subjects
2.2.4.2 (b)		Added MPL and added new conversion requirements for PPL/IR
2.2.4.2(b)(ii)		Editorial change
2.2.4.3		Editorial - Deleted the Note.
2.2.4.4(c)		Editorial – changed “validated” to “converted”
2.2.4.4 (d)		Editorial – changed “validation” to “licence”
2.2.4.4		Editorial – deleted the Note
2.2.4.5 (c)		Added (c)
2.2.4.6		Editorial change
2.2.4.6 (d)		Changed knowledge areas
2.2.4.7		Editorial – Deleted the Note

2.2.4.8(a)(3)(iv)		Deleted “human performance” as knowledge area
2.2.4.8(a)(5)(iii)		Editorial - deleted
2.2.4.9 (a)		Editorial
2.2.4.9 (d)		Editorial – corrected IS reference
2.2.4.9		Editorial – deleted the Note
2.2.4.10 (d)		Editorial change
2.2.4.10 (d)		Corrected knowledge areas for AMT
2.2.4.10		Editorial – deleted the Note
2.2.5.2		Added new text and Note and updated references contained in the Notes
2.2.5.2 (a)		Changed text
2.2.5.3		Updated the Note to reflect change in title of the ICAO Doc reference; deleted “synthetic flight trainer” from title
2.2.5.3(b) and (d)		Changed “synthetic flight training” to “flight simulation training device”
2.2.5.5 (e)(2)		Editorial – changed verb tense
2.2.5.5 (f) (g)		Added new section text and changed reference
2.2.5.5		Editorial – deleted the Note
2.2.5.6		Changed reference
2.2.9		Editorial - Changed reference in Note 2
2.3.1.5		Deleted first Note.
2.3.1.6		Changed reference
2.3.3.1(d)(2)		Added text
2.3.4.1 (d)(2)		Corrected reference
2.3.4.1 (h)		Added text for renewal and reissue and changed reference
2.3.4.2 (a)(1)		Updated text to reflect flight simulation training device
2.3.4.4 (a)(1)		Updated text to reflect ICAO amendment and deleted Note
2.3.4.2		Changed title
2.3.4.2 (c)		Added text previously contained in 2.3.4.3
2.3.4.3		Changed title
2.3.4.3 (c)		Added text previously contained in 2.3.4.5
2.3.4.4		Changed title
2.3.4.4 (c)		Added text previously contained in 2.3.4.7
2.3.4.5		Changed title
2.3.4.5 (c)		Added text previously contained in 2.3.4.9
2.3.4.6		Changed title
2.3.4.6 (c)		Added text previously contained in 2.3.4.11
2.3.4.7		Changed title
2.3.4.7 (d)		Added text previously contained in 2.3.4.9
2.3.5.1 (h)		Added text for renewal and reissue and changed reference
2.3.5.2		Changed title
2.3.5.2 (c)		Added text previously contained in 2.3.5.3 Renumbered subsequent sections in 2.3
2.3.5.3		Changed title

2.3.5.3 (c)		Added text previously contained in 2.3.5.5
2.3.5.4		Changed title
2.3.5.4 (c)		Added text previously contained in 2.3.5.7
2.3.5.5		Changed title
2.3.5.5 (c)		Added text previously contained in 2.3.5.9
2.3.5.6		Changed title
2.3.5.6 (c)		Added text previously contained in 2.3.5.11
2.3.5.7		Changed title
2.3.5.7 (c)		Added text previously contained in 2.3.5.13
2.3.6.1		Editorial change
2.3.6.1((g)(3)		Deleted erroneous text
2.3.6.2 (a)(1)		Editorial change
2.3.7.1 (c)(3)		Added text
2.3.7.1 (c)(4)		Reformatted text/correcting outline numbering of Human Performance
2.3.7.1 (f)(2)(v)		Reference change
2.3.7.1 (f)(3)		Editorial – changed IS reference
2.3.7.1 (h)		Added text for renewal and reissue and changed reference
2.3.7.2		Changed title
2.3.7.2 (b)		Changed Note
2.3.7.2 (c)		Added text previously contained in 2.3.6.3 (prior to renumbering)
2.3.7.3		Changed title
2.3.7.3 (a)(2)		Editorial – changed IS reference
2.3.7.3 (b)		Changed Note
2.3.7.3 (c)		Added text previously contained in 2.3.6.7
2.3.7.4		Changed title
2.3.7.4 (b)		Changed Note
2.3.7.4 (c)		Added text previously contained in 2.3.6.7
2.3.8.1 (c)(6)		Added text
2.3.8.1 (c)(7)		Editorial change
2.3.8.1		Editorial – changed IS references in (h) and (i)
2.3.8.2		Changed title
2.3.8.2 (c)		Editorial - changed IS reference
2.3.8.2 (d)		Added text previously contained in 2.3.7.3
2.3.9.1 (a)(2)(iii)		Changed text from “synthetic flight” to “flight simulation”
2.3.9.2		Changed title
2.3.9.2 (c)(1)(i)		Added “airline transport pilot”
2.3.9.2 (k)		Editorial – changed IS reference
2.3.9.2 (m)(6)(C)		Changed reference
2.3.9.2 (n)		Added text previously contained in 2.3.8.3
2.3.9.3		Changed experience and validity of the authorisation from 2 years to 1 year in (a) and (a)(3); added (a)(4) to address renewal; added (a)(5) to address reissue

2.3.9.3 (a)		Changed “synthetic flight training” to “flight simulation training device”
2.3.9.4 (d)		Added the validity period for a ground instructor licence
2.3.10		Changed reference
2.3.10.1		Changed title
2.3.10.1 (i)(2)		Changed reference
2.3.10.1(k)		Added text previously contained in 2.3.9.2
2.3.10.2		Changed references in sections (a) – (f)
2.3.10.3		Changed references in sections (b) and (c)
2.3.10.3 (b)(3)		Editorial changes; Deleted erroneous entry and renumbered subsequent entries
2.3.10.4		Changed reference in sections (a) – (d)
2.3.10.5		Changed references in sections (a) – (c)
2.3.10.5		Format changes
2.3.10.6		Changed reference
2.4.5.1		Corrects IS reference
2.4.5.2		Changed experience and validity of the authorisation from 2 years to 1 year in (a) and (a)(3); added (a)(4) to address renewal; added (a)(5) to address reissue; Changed “synthetic flight training” to “flight simulation training device” throughout paragraph
2.4.6.1		Changed reference
2.6.2.4 (a)(5)(i)		Added text to reflect additional knowledge requirement
2.6.2.4 Note		Updated Note to reflect ICAO material
2.6.4.4 (c)		Editorial – to reflect AOC holder
2.6.6.7		Changed reference
2.7.3.1		Added new text for Student Air Traffic Controller,
2.7.3.2		Moved text previously contained in 2.7.3.1 for “Air Traffic Licence” and renumbered subsequent sections
2.7.3.2 (c)(4)		Changed text to include principles of treat and error management
2.7.3.3(a)		Deleted radar control ratings – replaced with area control surveillance ratings.
2.7.3.3(a)		Added new note
2.7.3.3(b)(2)		Changed text to: Approach control procedural and area control procedural ratings
2.7.3.3(b)(3)		Changed and added text;
2.7.3.3(d)(2)(ii)		Changed text
2.7.3.3(d)(3)		Changed text
2.7.3.3 (e) and Note		Updated to include new knowledge requirement and updated Note to reflect ICAO reference material
2.7.3.3(f)(ii)		Changed text to: approach control procedural rating:
2.7.3.3(f)(iii)		Changed text to: approach control surveillance rating:
2.7.3.3		Changed references
2.8.3.1 (b)(3)		Added text
2.8.3.1 (b)(4)(i) and Note		Updated to include new knowledge requirement and updated Note to reflect ICAO reference material

2.8.3.1 (b)(8)		Added text for Principles of Flight and renumbered Radio Communication to (b)(9)
2.8.3.1 (e)(4) and Note		Updated to include new skill requirement and added Note to reflect ICAO reference material
2.8.3.2 references		Updated ICAO references
2.10.3.7		Changed reference
2.11.1		Added Notes from ICAO Annex 1: 1.2.4R
2.11.1.3		New: Added Note after (c); (d) and added (i) and (j)
2.11.1.3 (a)		Changed “will” to “may”
2.11.1.3 (b)		Added new text to reflect initial and recurrent training for AMEs
2.11.1.4		Added new (b) and renumbered remaining items; added reference in renumbered (d) to reflect the reference for government issued identification; changed renumbered (f) to indicate the medical application form as prescribed by the Authority
2.11.1.7 Note		Added new text to Note to reflect further ICAO guidance
2.11.1.8 (d)(2)		Editorial – deleted “authorised”
2.11.1.8 (d)(3)		Added text to allow delegation to an AME
2.11.2.2		Added new text (b) and notes and added references
2.11.2.6 (a)		Added new text (1), (4) and note
2.11.2.6 (b) (22) 2.11.2.6(b)(21) 2.11.2.6(b)(20)		Corrects “structure” to “stricture”
IS 2.2.4.3 (c)		Added text
IS 2.2.4.4 (c)(1)		Added text
IS 2.2.4.9 (c)		Added text
IS 2.2.4.10 (c)(1)		Added text
IS 2.2.8 (IX)		Editorial to correct numbering
IS 2.3.1.7(b)(3) and (c)(5)(i)		Changed “synthetic flight training” to “flight simulation training device”
IS 2.3.5		Updated IS numbering to match changes in MCAR
IS 2.3.6		Updated IS numbering to match changes in MCAR
IS 2.3.7		Updated IS numbering to match changes in MCAR

Introduction

This 1st Revision of Lao Civil Aviation Regulation (LCAR Part 2) is renamed from Lao Civil Aviation Safety Regulation (LCASR) Part 2 V 2.5 promulgated in May 2010, and updated Part 2 of Model Civil Aviation Regulation V 2.7 under COSCAP-SEA Assistance.

Part 2 addresses the licensing of personnel. Article 32 of the Chicago Convention requires Contracting States to issue certificates of competency and licenses or validate such certificates or licenses issued by other Contracting States to the pilot of every aircraft and to other members of the operating crew of every aircraft engaged in international navigation. The basis of this obligation is the goal of promoting and conducting safe and regular aircraft operations through the development and implementation of internationally acceptable certification and licensing processes. If the same process is extended to domestic operations, Lao PDR can ensure the overall safety of aircraft operation through unification of licensing requirements. ICAO Annex 1, Personnel Licensing, presents the broad international specifications for personnel licensing agreed upon by Contracting States. Most of the specifications in ICAO Annex 1 are not given in enough detail to satisfy the day-to-day management of a country's personnel licensing activities.

Part 2 of the Model Regulations presents detailed requirements for the general rules of licensing and detailed requirements for the certification of the licences contained in ICAO Annex 1 of: pilots and flight instructors, flight engineers, flight navigators, flight operations officers, mechanics, aeronautical station operators and for medical assessment of flight crew and aeronautical station operators.

Part 2 also addresses licences not addressed in ICAO Annex 1, such as Inspection Authorisations, Aviation Repair Specialists, and designees. The licensing and medical standards are based upon ICAO Annex 1, through Amendment 172. The new ICAO Annex 1 requirements for the Multicrew Pilot License (MPL) will be incorporated into future versions of Part 2 as more experience is gained in its use.

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2.1 GENERAL

2.1.1.1 APPLICABILITY

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

2.1.1.2 DEFINITIONS

- (a) For the purpose of Part 2, the definitions in the Law, in Part 1 and the following definitions shall apply:
- (1) **Accredited medical conclusion.** The conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.
 - (2) **Aeroplane.** A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly aerodynamic reactions on surfaces which remain fixed under given conditions of flight
 - (3) **Aircraft.** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface
 - (4) **Aircraft - category.** Classification of aircraft according to specified basic characteristics, e.g. aeroplane, helicopter, glider, free balloon.
 - (5) **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.
 - (6) **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
 - (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 required to be operated with a co-pilot.** A type of aircraft that is required to be operated with a co-pilot as specified in the flight manual or by the air operator certificate.
 - (9) **Airmanship.** The consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives.
 - (10) **Airship.** A power-driven lighter than air aircraft.
 - (11) **Approved Maintenance Organization.** An organization approved by a Contracting State, in accordance with the requirements of Annex 6, Part I, Chapter 8 Aeroplane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by that state.

- (12) **Approved training.** Training conducted under special and supervision approved by a Contracting State.
- (13) **Approved training organization.** An organization approved by and operating under the supervision of a Contracting State in accordance with the requirements of Annex 1 to perform approved training.
- (14) **ATS surveillance service.** A term used to indicate a service provided directly by means of an ATS surveillance system.
- (15) **ATS surveillance system.** A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.
- (16) **Balloon.** A non-power-driven lighter-than-air aircraft.
- (17) **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.
- (18) **Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.
- (19) **Competency.** A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.
- (20) **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.
- (21) **Competency unit.** A discrete function consisting of a number of competency elements.
- (22) **Co-pilot.** A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.
- (23) **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.**
- (24) **Credit.** Recognition of alternative means or prior qualifications.
- (25) **Cross-country.** A flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.
- (26) **Dual instruction time.** Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft.
- (27) **Error.** An action or inaction by an operational person that leads to deviations from organisational or the operational person's intentions or expectations.
- (28) **Error management.** The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors, and mitigate the probability of errors or undesired aircraft state.

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

- (29) **Flight crew member.** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.
- (30) **Flight plan.** Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.
- (31) **Flight procedures trainers.** See flight simulation training device.
- (32) **Flight simulation training device.** Formerly referenced as as synthetic flight trainer. 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 to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crewmembers, 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, and simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;
- A basic instrument flight trainer, which equipped with appropriate instruments and simulates the flight deck environment of an aircraft in flight in instrument flight conditions.
- (33) **Flight simulator.** See Flight simulation training device.
- (34) **Flight time - aeroplanes.** The total flight time from the moment ab aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.
- Note: Flight time as here defined is synonymous with the term “block to block” time or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.*
- (35) **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.
- (36) **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.
- (37) **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.
- (38) **Helicopters.** 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.
- (39) **Human performance.** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.
- (40) **Instrument flight time.** Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.

- (41) **Instrument ground time.** Time during which a pilot is practising, on the ground, simulated instrument flight in a flight simulation training device approved by the Director General of Civil Aviation or Department of Civil Aviation, Lao PDR (DCA)
- (42) **Instrument time.** Instrument flight time or instrument ground time.
- (43) **Licensing Authority.** The Personnel Licensing section of the Flight Safety Division under the Department of Civil Aviation of Lao PDR is responsible for the licensing of personnel.
- (44) **Likely.** In the context of the medical provisions in this part, likely means with a probability of occurring that is unacceptable to the medical assessor.
- (45) **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.
- (46) **Medical Assessment.** The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness.
- (47) **Medical Assessor.** A physician, appointed by the Licensing Authority, qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical condition of flight safety significance.
- Note 1: Medical assessors evaluate medical reports submitted to the DCA by medical examiners.*
- Note 2: Medical assessors are expected to maintain the currency of their professional knowledge*
- (48) **Medical Examiner.** A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the DCAL to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed. Called Aviation Medical Examiners (AME) in this Part when non-CAA physicians are designated to perform medical examinations
- (49) **Night.** The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.
- Note. — Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon.*
- (50) **Performance criteria.** A simple, evaluative statement on the required outcome of the competency element and a description of the criteria used to judge if the required level of performance has been achieved.
- (51) **Pilot (to).** To manipulate the flight controls of an aircraft during flight time.
- (52) **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.
- (53) **Pilot-in-command under supervision.** Co-pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, in accordance with a method of supervision acceptable to the DCA.

- (54) **Powered-lift.** A heavier than air aircraft capable of vertical take-off, vertical landing, and low speed flight that depends principally on engine driven lift devices or engine thrust for the lift during these regimes and on non-rotating aerofoil(s) for lift during horizontal flight.
- (55) **Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in a way that:
- a) Constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or
 - b) Causes or worsens an occupational, social, mental or physical problem or disorder.
- (56) **Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.
- (57) **Quality system.** Documented organisational procedures and policies; internal audit of those policies procedures; management review and recommendation for quality improvements.
- (58) **Rated air traffic controller.** An air traffic controller holding a licence and valid ratings appropriate to the privileges to be exercised.
- (59) **Rating.** An authorisation entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such **licence**
- (60) **Rendering (a licence) valid.** The action taken by a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence.
- (61) **Safety Management System.** A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures
- (62) **Sign a maintenance release (to).** To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in LCAR Part 5
- (63) **Significant.** In the context of the medical provisions in this Part, significant means to a degree or of a nature that is likely to jeopardise flight safety.
- (64) **Solo flight time.** Flight time during which a student pilot is the sole occupant of an aircraft.
- (65) **State Safety Programme.** An integrated set of regulation and activities aimed at improving safety.
- (66) **Threat.** Events or errors that occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.
- Note: See attachment E of Annex 13 Aircraft Accident and Incident Investigation for a description of operational personnel.*
- (67) **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 aircraft.

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

- (68) **Validation.** The action taken by Lao PDR 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 Lao PDR.

2.1.1.3 ABBREVIATIONS

- (a) The following abbreviations are used in Part 2:
- (1) A – Aeroplane.
 - (2) AIP – Aeronautical Information Publication.
 - (3) AME – Aviation Medical Examiner.
 - (4) AMT—Aviation Maintenance Technician.
 - (5) ATCO – Air Traffic Controller (Note: abbreviation ICAO A446).
 - (6) AS—Airship.
 - (7) ATPL – Airline Transport Pilot Licence.
 - (8) B—Balloon.
 - (9) CAT II- Category II.
 - (10) CAT III –Category III.
 - (11) CPL – Commercial Pilot Licence.
 - (12) CRM – Crew Resource Management.
 - (13) DCA – Department of Civil Aviation of Lao PDR.
 - (14) DFEE – Designated Flight Engineer Examiner.
 - (15) DFNE – Designated Flight Navigator Examiner.
 - (16) DFOOE—Designated Flight Operations Officer Examiner.
 - (17) DME – Designated Mechanic Examiner.
 - (18) DPE – Designated Pilot Examiner.
 - (19) FE – Flight Engineer.
 - (20) FI – Flight Instructor.
 - (21) FOO – Flight Operations Officer.
 - (22) G – Glider.
 - (23) IA – Inspection Authorisation.
 - (24) IFR – Instrument Flight Rules.
 - (25) ILS – Instrument Landing System.

- (26) H – Helicopter.
- (27) ICAO – International Civil Aviation Organisation.
- (28) MPA – Multi-pilot Aeroplane.
- (29) MPH – Multi-pilot Helicopter.
- (30) MPL – Multi-crew Pilot Licence
- (31) NOTAM – Notice to airmen.
- (32) PIC – pilot-in-command.
- (33) PL – Powered-lift
- (34) PPL – Private Pilot Licence.
- (35) RT – Radiotelephony.
- (36) SPA – Single-pilot Aeroplane.
- (37) SPH – Single-pilot Helicopter.
- (38) VFR – Visual Flight Rules.

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

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

2.2.1.1 LICENCES

- (a) The DCA may issue the following licences under this Part to an applicant who satisfactorily accomplishes the requirements in this Part for the licence sought:
 - (1) Flight crew license:
 - (i) Private Pilot Licence (PPL) – aeroplane, helicopter, airship, powered-lift, balloon or glider categories;
 - (ii) Commercial Pilot Licence (CPL)—aeroplane, helicopter, airship, powered-lift, balloon or glider categories;
 - (iii) Airline Transport Pilot Licence (ATPL) – aeroplane, helicopter or powered-lift categories;
 - (iv) Glider Pilot license;
 - (v) Free balloon pilot license;
 - (vi) Flight navigator license;
 - (vii) Flight engineer license

- (2) Other personnel:
 - (i) Aircraft maintenance (technician/engineer/mechanic) License;
 - (ii) Air traffic controller license;
 - (iii) Flight operations officer/flight dispatcher license;
 - (iv) Aeronautical station operator.
- (3) Instructor License:
 - (i) Flight Instructor License;
 - (ii) Ground Instructor License;
 - (iii) Flight operations officer instructor license;
 - (iv) Flight navigator instructor license;

Notes: Regarding the Flight radiotelephone operator licence:

- (i) Where the knowledge and skill of an applicant have been established as satisfactory in respect of the certification requirements for the radiotelephone operator's restricted certificate specified in the general radio regulations annexed to the International Telecommunication Convention and the applicant has met the requirements that are pertinent to the operation of the radiotelephone on board an aircraft, a Contracting State may endorse a license already held by the applicant or issue a separate license as appropriate.
- (ii) In some Contracting States, the testing and authorization of radiotelephone license may rest with a Government Agency other than the DCA.
- (iii) Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all pilot aero plane and helicopter licenses.

2.2.1.2 RATINGS

- (a) The DCA may issued the following ratings to place on flight crew licence or flight instructor licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
 - (1) Category ratings in the following aircraft:
 - (i) Aeroplane
 - (ii) Helicopter
 - (iii) Glider
 - (iv) Free Balloon
 - (v) Airship
 - (vi) Powered-lift
 - (2) Class ratings in the following aircraft:
 - (i) Single-engine land – aeroplane.

- (ii) Single-engine sea – aeroplane.
 - (iii) Multi-engine land – aeroplane.
 - (iv) Multi-engine sea- aeroplane.
 - (v) A class rating may be issued for those helicopters certificated for single-pilot operations and which have comparable handling, performance and other characteristics.
 - (vi) Hot air – balloon.
 - (vii) Gas – balloon.
 - (viii) Any rating considered necessary by the DCA.
- (3) Type ratings in the following aircraft:
- (i) Each type of aircraft certificated for operation with a minimum crew of at least two pilots.
 - (ii) Each type of helicopter certificated for single-pilot except where a class rating has been established under (a)(2)(v).
 - (iii) Any aircraft considered necessary by the DCA.
- (4) Instrument ratings in the following aircraft:
- (i) Instrument – Aeroplane.
 - (ii) Instrument – Helicopter.
 - (iii) Instrument – Powered lift.
- (5) Flight Instructor ratings:
- (i) The appropriate aircraft category, class, instrument and/or type rating according to the instruction to be taught.
- (6) The DCA may issue the following ratings to place on a ground instructor's licence when an applicant satisfactorily accomplished the requirements of this Part for the rating sought:
- (i) Basic.
 - (ii) Advanced.
 - (iii) Instrument.
- (b) The DCA may issue the following ratings to place on a flight engineer's licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
- (1) Reciprocating engine powered.
 - (2) Turbopropeller powered.
 - (3) Turbojet powered.

- (c) The DCA may issue the following ratings to place on an air traffic controller licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
 - (1) Aerodrome control rating.
 - (2) Approach control rating.
 - (3) Approach radar control rating.
 - (4) Approach precision radar control rating.
 - (5) Area control rating.
 - (6) Area radar control rating.
- (d) The DCA may issue the following ratings to place on an aircraft maintenance technician licence when an applicant satisfactorily accomplishes the requirements in this Part for the rating sought:
 - (1) Airframe.
 - (2) Powerplant.
 - (3) Avionics.
- (e) The DCA may issue ratings as appropriate to place on an aviation repairman specialist licence.

2.2.1.3 AUTHORISATIONS

- (a) The DCA may issue the following authorisations when an applicant satisfactorily accomplishes the requirements in this Part for the authorisation sought:
 - (1) Student pilot authorisation.
 - (2) Instructor authorisation for training in a flight simulation training device.
- (b) The DCA may issue the following authorisations to place on a pilot licence when an applicant satisfactorily accomplishes the requirements in this Part for the authorisation sought:
 - (1) Category II pilot authorisation.
 - (2) Category III pilot authorisation.
- (c) The DCA may issue the following authorisation to place on an AMT licence when an applicant satisfactorily accomplished the requirements in the Part for the authorisation sought:
 - (1) Inspection authorisation.

2.2.1.4 ENDORSEMENTS

- (a) A pilot may receive the following endorsements from an authorised instructor when he/she satisfactorily accomplished the required training in this Part:
 - (1) Complex aeroplane endorsement.
 - (2) High performance aeroplane endorsement.

- (3) High altitude aircraft endorsement.

2.2.1.5 CERTIFICATES

- (a) The DCA may issue the following medical certificates when an applicant satisfactorily accomplishes the requirements in this Part for the medical certificate sought:
 - (1) Medical certificate Class 1 for CPL and ATPL licences; flight instructor licences and DPEs;
 - (2) Medical certificate Class 2 for student pilot authorisation, PPL, Flight Engineer, and Flight Navigator licences;
 - (3) Medical certificate Class 3 for Air traffic controller licence.
- (b) The DCA may issue the following certificates to pilots and flight engineers holding a licence from another ICAO Contracting State.
 - (1) Validation certificates.
- (c) The DCA may issue certificates of designation to representatives of the Director General of Aviation as identified in 2.2.2.6 below.

2.2.1.6 DESIGNATION OF REPRESENTATIVES OF THE DIRECTOR GENERAL OF CIVIL AVIATION

- (a) The DCA may issue the following designations to private persons to act on behalf of the Director General of Civil Aviation, as specified in this Part:
 - (1) DPE;
 - (2) DFEE;
 - (3) DFNE;
 - (4) DFOOE;
 - (5) DME;
 - (6) DPRE;
 - (7) AME; or
 - (8) Other designees as may be determined by the DCA.

2.2.1.7 VALIDITY OF LICENCES, RATINGS, AUTHORISATIONS AND CERTIFICATES

- (a) The DCA will issue, renew or re-issue a licence, rating, authorisation, designation and/or certificate when the applicant complies with the requirements of Part 2 and the procedures in IS 2.2.1
- (b) Privileges. The holder of a licence, certificate, authorisation or designation shall not exercise privileges other than those granted by the licence, certificate, authorisation or designation.
- (c) The privileges granted by a licence, or by related ratings, may not be exercised unless the holder maintains competency and meets the requirements for recent experience of this Part.

- (d) Maintenance of competency shall be indicated in the airman's personal licence or record (e.g. logbook).
- (e) The maintenance of competency of flight crewmembers, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Part 8.
- (f) The validity period of a licence is 5 years.
- (g) Renewal of a licence will take place within the 5 years validity period after initial issue of a rating provided the ratings related to the licence and the medical certificate are valid.
- (h) The validity period of the ratings, authorisations, certificates of validation and medical certificates and the renewal/re-issue conditions are indicated in the relevant Subparts of Part 2.
- (i) Medical fitness. Applicants for the following licences and authorisations shall hold a current and appropriate medical certificate issued under this part in order for their licence or authorisation to be valid:
 - (1) Student pilot authorisation.
 - (2) Pilot licence,
 - (3) Flight engineer licence.
 - (4) Flight navigator licence.
 - (5) Flight instructor licence.
 - (6) Cabin Crew Instructor License.
 - (7) Designated pilot examiner (DPE).
 - (8) Designated flight engineer examiner.
 - (9) Designated flight navigator examiner.
 - (10) Air traffic controller licence.

2.2.2 LANGUAGE PROFICIENCY

- (a) Pilots, flight engineers, flight navigators, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radio telephony communications in Lao PDR and in the English language.
- (b) The airmen identified in item (a) above shall demonstrate the ability to speak and understand the language used for radiotelephony communications in Lao PDR and in the English language to least the Operational Level (Level 4) with the aim to speak at the Expert Level (Level 6) as specified in the language proficiency requirements in IS 2.2.2.
- (c) The language proficiency of airmen identified in item (a) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level as follows:
 - (1) those demonstrating language proficiency at the Operational Level (Level 4) shall be evaluated at intervals not greater than 3 years;

- (2) those demonstrating language proficiency at the Extended Level (Level 5) shall be evaluated at intervals not greater than 6 years; and
 - (3) those demonstrating language proficiency at the Expert Level (Level 6) shall be exempt from further language evaluation.
- (d) Implementing Standard IS 2.2.2 contains the detailed requirements for language proficiency.

2.2.3 CREDIT FOR MILITARY COMPETENCY

2.2.3.1 CREDIT FOR MILITARY PILOTS

- (a) Pilot licences. Except for a rated military pilot or former military pilot who has been removed from flying status for lack of proficiency, or because of disciplinary action involving aircraft operations, a rated military pilot or former rated military pilot who meets the requirements of IS 2.2.3.1 may apply, on the basis of his or her military training, for:
- (1) A CPL;
 - (2) A rating in the category and class of aircraft for which that military pilot is qualified;
 - (3) An instrument rating with the appropriate category rating for which that military pilot is qualified; and
 - (4) A type rating, if appropriate.
- (b) The testing required by a military pilot seeking a licence or rating is as follows:
- (1) If the applicant has been on active flight status within the past 12 months of application; pass a knowledge test on:
 - (i) Air law;
 - (ii) Aeronautical weather codes
 - (iii) Flight performance and planning;
 - (iv) Human performance.
 - (2) If the applicant has not been on active flight status within the past 12 months of application, pass both a knowledge and skill test.

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

2.2.4.1 VALIDATION OF FLIGHTCREW LICENCES

- (a) General requirements for validation.
- (1) A person who holds a current and valid pilot licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for a validation of such licence for use on aircraft registered in Lao PDR.
 - (2) The applicant for the validation certificate shall present to the DCA 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 DCA evidence that he/she holds either a current medical certificate issued under Part 2 or a current medical certificate issued by the Contracting State that issued the applicant's licence.
 - (i) The DCA may allow the applicant to use his/her foreign medical certificate with the validation certificate provided that the medical certification requirements on which the foreign medical certificate was issued meet the requirements of Part 2, relevant to the licence held.
 - (4) The applicant for the validation certificate shall present to the DCA evidence of language proficiency in the language of Lao and in English as specified in 2.2.2 or shall demonstrate to the DCA the language proficiency skills as specified in 2.2.2.
 - (i) The validation shall be limited for use on Lao PDR registered aircraft for use within Lao PDR if the pilot is not proficient in the English language, as required by 2.2.2.
 - (5) DCA 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 DCA will only validate ratings or authorisations on the foreign licence together with the validation of a licence
 - (7) The DCA may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings or authorisations and the medical certificate remains valid.
- (b) Validation certificate with PPL privileges.
- (1) In addition to the requirements in item (a) above, the applicant for the validation certificate with PPL privileges shall have a foreign licence with at least PPL privileges.
- (c) Validation certificate with PPL/IR, CPL, CPL/IR, ATPL or FE privileges. In addition to the requirements in item (a) above, the applicant for a validation certificate for either a PPL/IR, CPL, CPL/IR, MPL, ATPL or FE privileges, shall have the relevant foreign licence and meet the following requirements:
- (1) The applicant for the validation certificate shall demonstrate to the satisfaction of the DCA and relevant to the license to be validated, knowledge of Lao PDR's:
 - (i) Air Law;
 - (ii) Meteorology;
 - (iii) Operational procedures; and
 - (iv) Radiotelephony;
 - (2) The applicant for the validation certificate shall complete a skill test for the relevant licence and ratings that he or she wants to be validated relevant to the privileges of the licence held; and
 - (3) Comply with the experience requirements set out in the table below:

Licence	Experience	Validation privileges
ATPL(A)	> 1 500 hours as PIC in multi-pilot * certificated aeroplanes	Commercial air transport in multi-pilot aeroplanes as PIC
ATPL(PL)	>1500 hours as PIC in multi-pilot certificated powered-lift or 1500 hours in multi-pilot operations in a combination of powered-lift; aeroplane and helicopter aircraft as acceptable to the DCA	Commercial air transport in multi-pilot powered-lift as PIC
ATPL(H)	>1 000 hours as PIC on multi-pilot helicopters	Commercial air transport multi-pilot helicopters as PIC
ATPL(A) or CPL(A)/IR	> 500 hours as PIC or co-pilot on multi-pilot aeroplanes	Commercial air transport in multi-pilot aeroplanes as co-pilot
ATPL(PL) or CPL(PL)/IR	> 500 hours as PIC or co-pilot on multi-pilot powered-lift	Commercial air transport in multi-pilot powered-lift as co-pilot
ATPL(H) or CPL(H)/IR	> 500 hours as PIC or co-pilot on multi-pilot helicopters	Commercial air transport in multi-pilot helicopters as co-pilot
CPL(A)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot aeroplanes as PIC
CPL(H)/IR	> 1 000 hours as PIC in commercial air transport since gaining an IR	Commercial air transport in single-pilot helicopters as PIC
CPL(A)	> 700 hours in aeroplanes other than gliders, including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in aeroplanes other than commercial air transport
CPL(H)	> 700 hours in helicopters including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in helicopters other than commercial air transport
CPL(PL)	>700 hours in powered-lift (or combination of powered-lift, aeroplane and helicopter as acceptable to the DCA) including 200 hours in the activity role for which validation is sought, and 50 hours in that role in the last 12 months	Activities in powered-lift other than commercial air transport
CPL(AS)	> 250 hours as PIC in commercial air transport including 50 hours in AS within the last 12 months	Commercial air transport in airships as PIC under IR and VFR conditions
CPL(B)	>50 hours as PIC in commercial air transport of which 35 hours in B within the last 12 months	Commercial air transport in balloons as PIC
CPL(G)	>250 hours as PIC in commercial air transport, including of which 50 must be in G within the past 12 months	Commercial air transport in gliders as PIC
MPL(A)	> 250 as co-pilot of turbine-powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots operated in commercial air transport within the past 12 months	Commercial air transport in turbine - powered air transport aeroplanes certificated for operations with a minimum crew of at least two pilots as co-pilot
PPL(A)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
PPL(H)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
PPL(PL)/IR	> 100 hours PIC instrument flight time	Private flights under IFR
Flight engineer	> 1 500 hours as flight engineer on aeroplanes in commercial air transport	Commercial air transport in aeroplanes as flight engineer
Flight engineer	> 1 000 hours as flight engineer on aeroplanes in other than commercial air transport	Other than commercial air transport in aeroplanes as flight engineer

2.2.4.2 CONVERSION OF FLIGHTCREW LICENCES

- (a) Conversion of a foreign pilot licence for issuance of a PPL by Lao PDR. 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 Lao PDR provided the following requirements are met.
- (1) The holder shall:
- (i) present to the DCA the foreign licence, evidence of experience required by presenting the record (e.g. logbook) and current medical certificate;
 - (ii) present to the DCA evidence of language proficiency in the language of Lao and in English as specified in 2.2.2 or shall demonstrate to the DCA the language proficiency skills as specified in 2.2.2;
 - (iii) obtain a Class 2 medical certificate issued under this Part;
 - (iv) demonstrate to the satisfaction of the DCA and relevant to the license to be converted, knowledge of Lao PDR's:
 - a) Air Law;
 - b) Meteorology;
 - c) Operational Procedures; and
 - d) Radiotelephony.
 - (v) complete a PPL skill test.
- (2) The DCA will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the state of licence issue prior to converting the licence.
- (b) Conversion of PPL/IR, CPL, CPL/IR, MPL, ATPL and Flight Engineer licences, which have been validated in accordance with paragraph 2.2.4.1.
- (1) The holder of a current and valid foreign PPL/IR, CPL, CPL/IR, ATPL or Flight Engineer licence issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Lao PDR provided the following requirements are met:
- (i) The applicant is the holder of a current validation certificate issued under 2.2.4.1;
 - (ii) The applicant has completed 200 flight hours in a Lao PDR registered aircraft which is operated by an operator established in Lao PDR exercising the privileges granted by the validation certificate,
 - (iii) The applicant for the conversion shall present to the DCA the foreign licence and evidence of the 200 flight hours by presenting the record (e.g. logbook); and
 - (iv) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.

- (v) Ratings listed on a person's foreign pilot licence that have been validated in accordance with paragraph 2.2.4.1, may be placed on that person's converted licence.
- (2) The holder of a current and valid foreign PPL/IR issued by another Contracting State in accordance with ICAO Annex 1, and appropriate medical certificate, may apply for conversion to the appropriate licence and ratings issued by Lao PDR provided the following requirements are met:
- (i) The applicant is the holder of a current validation certificate issued under 2.2.4.1;
 - (ii) The applicant has completed 75 flight hours in a Lao PDR registered aircraft in Lao PDR exercising the privileges granted by the validation certificate,
 - (iii) The applicant for the conversion shall present to the Authority the foreign licence and evidence of the 75 flight hours by presenting the record (e.g. logbook); and
 - (iv) The applicant shall hold or obtain a medical certificate issued under this Part, appropriate to the level of licence to be converted.
 - (v) Ratings listed on a person's foreign pilot licence that have been validated in accordance with paragraph 2.2.4.1, may be placed on that person's converted licence.

2.2.4.3 VALIDATION OF FLIGHTCREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

- (a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2 the DCA may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign licence and current medical certificate, provided:
- (1) the licence is issued by another ICAO Contracting State;
 - (2) the DCA is convinced that the licence has been issued on the basis of at least Part 2;
 - (3) there is an agreement between the DCA and the other Contracting State about recognition of licences and, if applicable, keeping the licences and ratings current and valid; and
 - (4) the applicant for the validation certificate shall demonstrate to the satisfaction of the DCA and relevant to the license, knowledge of Lao PDR's::
 - (i) Air law;
 - (ii) Meteorology;
 - (iii) Operational procedures; and
 - (iv) Radiotelephony.
- (b) The applicant for the validation certificate shall present to the DCA the:
- (1) Foreign licence and evidence of the currency of the licence by presenting the record (e.g. logbook).
 - (2) Medical certificate relevant to the licence to be validated, provided that the foreign medical certificate meets the requirements of Part 2.

- (3) Evidence of language proficiency in the language of Lao PDR and in English as specified in paragraph 2.2.2 or shall demonstrate to the DCA the language skills as specified in paragraph 2.2.2.
- (c) The DCA will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the State of Licence issue prior to issuing the validation.
- (d) The DCA may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings, authorisations and medical certificate remains valid.
- (e) The IS 2.2.4.3 contains procedures for validation of flightcrew licences by reliance upon the licensing system of another ICAO Contracting State.

Note: Implementing Standard: See IS 2.2.4.3 for procedures for validation or conversion of flightcrew licences.

2.2.4.4 CONVERSION OF FLIGHTCREW LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

- (a) Notwithstanding paragraphs 2.2.4.1 and 2.2.4.2 the DCA may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:
 - (1) the licence is issued by another ICAO Contracting State;
 - (2) the DCA is convinced that the licence has been issued on the basis of at least Part 2; and
 - (3) there is an agreement between the DCA and the other Contracting State about recognition of licences.
- (b) The applicant for the conversion shall present to the DCA the:
 - (1) foreign licence and evidence of the currency of the licence by presenting the record (e.g. logbook);
 - (2) medical certificate relevant to the licence if the medical certificate is to be converted or medical certificated issued under Part 2 relevant to the licence sought; and
 - (3) Evidence of language proficiency in the language of Lao and in English as specified in paragraph 2.2.2 or shall demonstrate to the DCA the language skills as specified in paragraph 2.2.2.
- (c) The applicant shall demonstrate to the satisfaction of the DCA the knowledge of Lao PDR relevant to the licence to be validated of:
 - (1) Air law;
 - (2) Meteorology;
 - (3) Operational procedures;
 - (4) Radiotelephony.
- (d) The DCA will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the State of Licence issue prior to issuing the validation.
- (e) The IS 2.2.4.4 contains procedures conversion of flightcrew licences by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.5 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 Lao PDR are leased to, chartered by or interchanged by an operator of another Contracting State, provided that during the term of the lease the State of the Operator has accepted the responsibility for the technical and/or operational supervision in accordance with Art. 83 bis of the ICAO Convention.
- (b) The licences of the flightcrew of the other Contracting State may be validated, provided that the privileges of the flightcrew licence validation are restricted for use during the lease, charter or interchange period only on nominated aircraft in specified operations not involving a Lao operator, directly or indirectly through a wet lease or other commercial arrangement.
- (c) The Authority will verify the authenticity of the licence, ratings, authorisations, including the English language proficiency endorsement of at least Level 4, and the medical certificate, with the State of Licence issue prior to issuing the validation

2.2.4.6 TEMPORARY VALIDATION OF NON-LAO PILOT LICENCES HELD BY MANUFACTURER PILOTS

- (a) In circumstances where validation of a non-Lao pilot licence is need to fulfil specific tasks of finite duration, the DCA may issue a temporary validation of such a licence for those tasks as described in this paragraph.
- (b) Notwithstanding the requirements contained in Sections 2.2.4.1, 2.2.4.2, 2.2.4.3 or 2.2.4.4, the DCA may temporarily validate a licence issued by another ICAO Contracting State in accordance with the provisions of ICAO Annex 1, including an instructor rating or examiner authorisation issued by that State, provided that the holder of the licence shall:
 - (ii) Possess an appropriate licence, medical certificate, type ratings and qualifications, to include instructor or examiner qualifications, valid in the State of licence issue for the duties proposed;
 - (iii) Demonstrate to the satisfaction of the DCA the knowledge of Lao PDR relevant to the licence to be validated of:
 - (i) Air law;
 - (ii) Meteorology;
 - (iii) Operational Procedures; and
 - (iv) Radiotelephony..
 - (iv) Provide evidence of language proficiency in the language of Lao and in English as specified in paragraph 2.2.2 or shall demonstrate to the DCA the language skills as specified in paragraph 2.2.2.
 - (v) Be employed by an aircraft manufacturer or Approved Training Organisation located outside Lao PDR performing training on behalf of an aircraft manufacturer; and
 - (vi) Be limited to performing flight instruction and testing for initial issue of type ratings, the supervision of initial line flying by the pilots of an operator in Lao PDR, delivery or ferry flights, initial line flying, flight demonstrations or test flights.

- (c) Whenever conducting or supervising line flying, the pilot shall also be required to meet the relevant requirements of Part 8.
- (d) Lao PDR will verify the authenticity of the licence, ratings, authorisations and medical certificate with the State of licence issue prior to issuing the temporary validation.
- (e) The duration of the temporary validation shall be for one year.

2.2.4.7 VALIDATION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

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

2.2.4.8 CONVERSION OF AIRCRAFT MAINTENANCE TECHNICIAN LICENCES

- (a) General requirements for conversion. A person who holds a current and valid AMT licence issued by another Contracting State in accordance with ICAO Annex 1, may apply for conversion of such licence for use on aircraft registered in Lao PDR provided the following requirements are met:
 - (1) The applicant for the conversion shall present to the DCA the foreign licence and evidence of the experience required by presenting the personal record.

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

2.2.4.9 VALIDATION OF AMT LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

- (a) Notwithstanding paragraphs 2.2.4.7 and 2.2.4.8 the DCA may issue a validation certificate with the applicable ratings to the holder of a current and valid foreign AMT, provided:
 - (1) the licence is issued by another ICAO Contracting State;
 - (2) the DCA had determined that the licence has been issued on the basis of at least Part 2;
 - (3) there is an agreement between the DCA and the other Contracting State about recognition of licences and, if applicable, keeping the licences and ratings current and valid; and
 - (4) the applicant for the validation certificate shall demonstrate to the satisfaction of the DCA the knowledge of Lao PDR of , relevant to the licence to be validated of:
 - (i) Air law;
 - (ii) Applicable Airworthiness requirements governing certification and continuing airworthiness; and
 - (iii) Approved maintenance organisations and procedures.

- (5) The applicant for the validation certificate shall present to the DCA the:
 - (i) foreign licence and evidence of the currency of the licence by presenting the personal record.
- (6) The applicant for the conversion shall demonstrate to the DCA evidence of language proficiency in the language of Lao and if required, in English.
- (b) The DCA will verify the authenticity of the licence, ratings, with the State of Licence issue prior to issuing the validation.
- (c) The DCA may issue a validation certificate which will be valid for one year, provided the foreign licence, ratings, and authorisations remain valid.
- (d) The IS 2.2.4.9 contains procedures for validation of flight crew licences by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.10 CONVERSION OF AMT LICENCES BY RELIANCE UPON THE LICENSING SYSTEM OF ANOTHER CONTRACTING STATE

- (a) Notwithstanding paragraphs 2.2.4.7 and 2.2.4.8 the DCA may issue a licence with the applicable ratings to the holder of a current and valid foreign licence, provided:
 - (1) the licence is issued by another ICAO Contracting State;
 - (2) the DCA is convinced that the licence has been issued on the basis of at least Part 2; and
 - (3) there is an agreement between the DCA and the other Contracting State about recognition of licences.
- (b) The applicant for the conversion shall present to the DCA the:
 - (1) Foreign licence; and
 - (2) Evidence of the currency of the licence by presenting the personal record (e.g. logbook).
- (c) The applicant for the conversion shall demonstrate to the DCA evidence of language proficiency in the language of Lao and if required, in English.
- (d) The applicant shall demonstrate to the satisfaction of the DCA and the relevant to the license to be validated, knowledge of Lao PDR's:
 - (1) Air law;
 - (2) Applicable airworthiness requirements governing certification and continuing airworthiness; and ;
 - (3) Approved maintenance organisations and procedures
- (e) The DCA will verify the authenticity of the licence, ratings, authorisations and the medical certificate with the State of Licence issue prior to issuing the validation.
- (f) The IS 2.2.4.10 contains procedures conversion of AMT licences by reliance upon the licensing system of another ICAO Contracting State.

2.2.4.11 VALIDATION OF FOREIGN FLIGHT OPERATIONS OFFICER /FLIGHT DISPATCHER LICENSES:

- (a) General Requirements for validation:
 - (1) A person who holds a current and valid Flight Operations Officer/Flight Dispatch license issued by another Contracting State in accordance with ICAO Annex 1, may apply for a conversion of such license for operations under employment contract with Lao Air Operators provided:
 - (2) The applicant for the validation certificate shall present to the DCA a current and valid foreign license.
 - (3) The applicant for the validation certificate shall present to the DCA evidence that he/she has satisfactorily completed the Approved training course relevant to his/her qualifications and experiences on (e.g Training records...)
- (b) The applicant for the validation certificate shall pass the written examination to the satisfaction of the DCA, the knowledge relevant to the license to be converted.
 - (i) Air Law
 - (ii) Flight performance calculation, planning procedures and loading
 - (iii) Meteorology
 - (iv) Operational Procedures
- (c) The applicant for the validation certificate is able to read, speak, write and communicate in English.
- (d) DCA will verify the authenticity of the license with the state of license issuance prior to issuing the validation.

2.2.4.12 CONVERSION OF FOREIGN FLIGHT OPERATIONS OFFICER/FLIGHT DISPATCHER LICENSES:

- (a) General Requirements for conversion:

Notwithstanding paragraphs 2.2.4.11 the DCA may convert a foreign flight operations officer/flight dispatcher licences to the holder of a current and valid foreign licence, provided:

 - (1) The applicant is a holder of the current certificate of validation issued under the paragraph 2.2.4.11 of this part
 - (2) The applicant has at least 1 year experience working relevant to flight dispatch under employment contract with Lao PDR AOC holders.
- (b) The applicant for the conversion shall satisfactorily pass a skill test for the flight operations officer as specified in IS 2.8.3.2
- (c) The applicant for the conversion shall demonstrate the ability to read, speak, write and communicate in English.
- (d) DCA will verify the authenticity of the license with the state of license issuance prior to issuing the validation.

2.2.5 TRAINING AND TESTING REQUIREMENTS

2.2.5.1 DOCUMENTATION OF TRAINING AND AERONAUTICAL EXPERIENCE

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

2.2.5.2 TRAINING CONDUCTED IN AN APPROVED TRAINING ORGANISATION

- (a) Approved training for aviation personnel licences shall be conducted within an approved training organization.
- (b) DCAL 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 this Part when training is conducted within an Approved Training Organisation under special curricula approved by DCAL under Part 3.
- (c) Prior to authorizing an alternative means of compliance that permits an Approved Training Organization to conduct training, which does not meet the normal prescribed experience requirements, the Authority shall ensure that the approved training 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.
- (d) Part 3 prescribes the requirements for certifying and administering Approved Training Organisations for conducting approved training.
- (e) Competency-based approved training for aircraft maintenance personnel shall be conducted within an approved training organization.

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

- (a) Except as specified in paragraph (b) of this subsection, no airman may receive credit for use of any flight simulation training device for satisfying any training, testing, or checking requirement of this part unless that flight simulator or flight training device is approved by the DCAL for—
 - (b) The training, testing, and checking for which it is used;
 - (c) Each particular manoeuvre, procedure, or crewmember function performed; and
 - (d) The representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight training devices.
- (e) The flight simulation training device shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, and heading reference) as those of the aircraft used by the operator.

- (f) Operators that have electronic/glass displays shall use simulators that have electronic/glass displays.
- (g) Operators that have standard instruments shall use simulators that have standard instruments.
- (h) Operators shall not conduct differences training on variant training on aircraft that have electronic glass displays with aircraft that have standard instruments.
- (i) The DCA may approve a device other than a flight simulation training device for specific purposes.
- (j) The use of a flight simulation training device for performing training, testing and checking for which a flight crewmember is to receive credit, shall be approved by the DCA, which shall ensure that the flight simulation training device is appropriate to the task.

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

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

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

- (a) An applicant for a knowledge test or a skill test shall have received any required endorsement as specified in this Part for the applicable licence, rating or authorisation to show that the applicant has met the training and/or experience requirements to take the knowledge or skill test.
- (b) An applicant for a knowledge or skill test shall receive written authorisation from the DCA to take, or retake, the test.
- (c) An applicant shall show proper identification in the form of a Government issued identification document at the time of application that contains the applicant's:
 - (1) Photograph;
 - (2) Signature;
 - (3) Date of birth, which shows the applicant meets or will meet the age requirements of Part 2 for the licence sought before the expiration date of the airman knowledge test report; and
 - (4) Actual residential address, if different from the applicant's mailing address.
- (d) The DCAL will specify the minimum passing grades.
- (e) An applicant shall, before attempting the skill test for a licence or rating:
 - (1) Have passed the required knowledge test within the 24 calendar-month period preceding the month the applicant successfully completes the skill test; or

- (2) If an applicant for an ATPL, has passed the ATP knowledge test within a period of 7 years before successfully completing the ATP skill test, provided that the applicant is, and has been continuously, employed as a flight crewmember by a certificate holder under Part 9 at the time of the ATP skill test, and
- (f) When an applicant is required to provide an aircraft for a skill test, it must be:
 - (1) airworthy and certificated;
 - (2) have operating limitations that do not prohibit the tasks required for the skill test,
 - (3) 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,
 - (4) have fully functioning dual controls, except as provided for in LCAR Part 2; and
 - (5) be capable of performing all areas of operation appropriate to the rating sought and have no operating limitations, which prohibit its use in any of the areas of operation, required for the skill test
 - (g) If the applicant is required to take a segmented skill test using a flight simulation training device and an aircraft, the flight simulation training device must be approved by the authority.
 - (1) Retesting after failure of a test.
 - (2) An applicant for a knowledge or skill test who fails that test may reapply to retake the test only after the applicant has received:
 - (3) The necessary training from an authorised instructor who has determined that the applicant is proficient to pass the test; and
 - (4) An endorsement from an authorised instructor who gave the applicant the additional training.
 - (5) An applicant for a flight instructor licence with an aeroplane category rating or, for a flight instructor licence with a glider category rating, who has failed the skill test due to deficiencies in instructional proficiency on stall awareness, spin entry, spins, or spin recovery shall—
 - (6) Comply with the requirements of paragraph (f)(1) of this subsection before being retested;
 - (7) Bring an aircraft to the retest that is of the appropriate aircraft category for the rating sought and is certified for spins; and
 - (8) Demonstrate satisfactory instructional proficiency on stall awareness, spin entry, spins, and spin recovery to an examiner during the retest.

2.2.5.6 RELIANCE ON TRAINING AND TESTING IN ANOTHER CONTRACTING STATE

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

2.2.6 INSTRUCTOR REQUIREMENTS—GENERAL

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

2.2.7 DESIGNATED EXAMINERS

- (a) The DCAL may designate private individuals to act as representatives of the DGCA in examining, inspecting, and testing persons and aircraft for the purpose of issuing airmen and aircraft licences, ratings and certificates.
- (b) The specific requirements for each type of designated examiner are contained in the appropriate licensing section of Part 2 related to the licensing requirements of the persons to be examined.
- (c) The DCAL will issue each designated examiner a certificate of designated authority and a designee identification card specifying the kinds of designation for which the individual is qualified and the duration of the designation.

2.2.8 SPECIFICATIONS AND FORMAT OF THE LICENCE

- (a) The licence shall be made of a suitable material as listed in ICAO Annex 1: 5.1.2.
- (b) The licence format shall be in a form and manner prescribed by the DCAL.
- (c) The items required on the licence are indicated in IS 2.2.8.
- (d) The licence shall contain the expiration date of the licence and ratings.
- (e) The licence shall be issued in the language of Lao and shall include an English translation.

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

2.2.9.1 SUSPENSION OF A LICENCE, RATING AUTHORISATION OR VALIDATION CERTIFICATE

- (a) If, in accordance with the Civil Aviation Law Article 70 determines that the interests of safety require that a license, rating, authorisation or certificate must be suspended, the DCA may act as follows:
 - (1) If the DCA discovers facts indicating either a lack of competency or lack of qualification, the DCA may, require an applicant for or the holder of any license, rating, authorisation, or validation certificate to retake all or part of the knowledge or practical tests required for any license, rating, authorisation, or validation certificate at issue, renewal or re-issue. The DCA may suspend the validity of any such license, rating, authorisation and/or validation certificate pending the results of such re-testing.
 - (2) A person whose license, rating, authorisation, or certificate has been amended, modified, suspended, or revoked shall be provided with notice and an opportunity to be heard in accordance with Part 1: 1.3.
 - (3) After notifying the person involved, in writing, stating the reasons for such action, the DCAL may also suspend the validity of any license, rating, authorisation and/or validation certificate in the following cases:
 - (i) During the investigation of an aircraft disaster or incident;
 - (ii) In cases of proven misconduct, recklessness or excessive carelessness;
 - (iii) If the holder has acted in contradiction to his or her privileges; and/or
 - (iv) pending the investigation of a suspected violation of these regulations or the aviation law under which these regulations are effected.
 - (4) Once the suspension is effective, the person involved shall immediately cease exercising the privileges of the affected license, certificate, rating, or authorisation. The person involved shall surrender to the DCA all licenses or validation certificates in his or her possession that are subject to the suspension within 8 days of receiving the notification of the order. If the person fails to surrender the documents under suspension, the DCA may revoke all such certificate(s) held by that person.
 - (5) When a suspension is limited to one or more ratings mentioned on the license or validation certificate, the DCA shall provide the person involved with a new

license or validation certificate omitting all ratings which are subject to the suspension.

- (6) The DCA may cancel a suspension in the following cases:
 - (i) If person under suspension has taken and passed the knowledge or practical tests required for any license, rating, or authorisation at issue indicated in (a);
 - (ii) If the person involved has gained the required additional experience; or
 - (iii) By revocation of the license, rating, authorisation and/or validation certificate.
- (7) Once the suspension has been cancelled, other than by revocation, the DCA shall issue the person involved a new license or validation certificate.

2.2.9.2 SUSPENSION OF A MEDICAL CERTIFICATE

- (a) In case of doubt concerning the medical fitness of the holder of a medical certificate the DCA 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 DCA 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 DCA may provide the person with a suspended medical certificate of a particular class with a new medical certificate of a lower class.
- (f) A suspension may be lifted if the medical examination intended in (a) has been passed satisfactorily. If a suspension is lifted, the person involved shall receive a new medical certificate unless the medical certificate was revoked.

2.2.9.3 REVOCATION OF LICENCES, RATINGS AUTHORISATIONS OR CERTIFICATES

- (a) A licence, rating, authorisation or certificate shall be revoked if the holder has lost the skills for exercising the privileges mentioned in the document or fails to meet the appropriate medical standards as shown by the results of a medical examination or a test.
- (b) A licence, rating, authorisation and/or certificate may be revoked if the holder has made a statement contrary to the truth in obtaining or maintaining that licence, rating, authorisation or certificate, or has provided incorrect data at a medical examination and/or test required for the issue, maintenance or renewal of the licence, rating, authorisation and certificate.
- (c) A licence, rating, authorisation or certificate shall be revoked in case of proven misconduct, recklessness or excessive carelessness. The holder of the licence will be notified in writing of the revocation with the reasons therefore.

- (d) A person who has had a licence or certificate revoked shall be obliged to hand over to the DCA 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 DCA.
- (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 DCA all licences and certificates in his or her possession within 8 days after he or she has taken cognisance of the judgement or after it can be reasonably assumed that he or she has taken cognisance thereof.

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

2.3.1 GENERAL

2.3.1.1 APPLICABILITY

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

2.3.1.2 GENERAL RULE CONCERNING LICENCES, RATINGS AND AUTHORISATIONS

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

2.3.1.3 AUTHORITY TO ACT AS A FLIGHT CREWMEMBER

- (a) A person shall not act as a pilot flight crewmember of an aircraft registered in Lao PDR unless a valid licence or a validation certificate is held showing compliance with the specifications of this Part 2 and appropriate to the duties to be performed by that person.
- (b) No person may act as the PIC or co-pilot of an aircraft unless that person holds the appropriate category, class and type rating for the aircraft to be flown.
- (c) During a skill test, the applicant acts as PIC but the safety pilot will intervene in safety situations.

2.3.1.4 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 PIC flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.
- (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 Lao PDR 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. Lao PDR may authorise that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in a multi-crew operation.

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

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

- (a) No person who holds a pilot licence issued under this Part shall serve as a PIC in single pilot operations on a civil aircraft of Lao registry engaged in commercial air transport operations if the person has reached his or her 60th birthday.
- (b) For commercial air transport operations on a civil aircraft of Lao registry requiring more than one pilot, one pilot may be up to 65 years of age provided the other pilot is less than 65 years of age.

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

2.3.1.6 RECENT EXPERIENCE AND CURRENCY REQUIREMENTS

- (a) A pilot shall not operate an aircraft carrying passengers as PIC or co-pilot unless he or she has carried out at least three take-offs and three landings as pilot-flying in an aircraft of the same type/class or variant of a type or a flight simulator of the aircraft type/class to be used, in the preceding 90 days.
- (b) The holder of a licence that does not include an instrument rating shall not act as PIC of an aircraft carrying passengers at night unless he or she has carried out at least three take-offs and three landings at night during the previous 90 days.
- (c) A pilot shall not operate an aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless within the preceding six months:
 - (1) The pilot had an instrument proficiency check on the manoeuvres in IS 2.3.3.5 (IR SKILL TEST) or
 - (2) Has logged six hours instrument flight time including at least three hours in flight in the category of aircraft and has carried out six instrument approaches in either actual or simulated conditions.
- (d) Each person shall document and record the experience required to show recent flight experience.
- (e) Each pilot shall also meet the currency requirements in Part 8: 8.4 before operating an aircraft in Lao PDR.

2.3.1.7 RECORDING OF FLIGHT TIME

- (a) Each person shall document and record the following time in a manner acceptable to the DCAL as outlined in IS 2.3.1.7:
- (b) Training and experience used to meet the requirements for a licence, rating and authorisation of Part 2; and
- (c) The experience required to show recent flight experience according to the requirements of Part 2.

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

2.3.2.1 GENERAL

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

2.3.2.2 CATEGORY RATINGS

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

- (1) Any additional category rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the category rating is granted.
- (2) The holder of a pilot licence seeking an additional category rating shall:
 - (i) Meet the requirements of this Part appropriate to the privileges for which the category rating is sought;
 - (ii) Have an endorsement in his/her logbook or training record from an authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
 - (iii) Pass the required knowledge test; and
 - (iv) Pass the required skill test for the aircraft category, and if applicable, class rating being sought.
- (d) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.
- (e) The validity, renewal or reissue of the category rating will coincide with the requirements for validity, renewal or reissue of the licence, and if applicable class or type rating contained in this Part.

2.3.2.3 CLASS RATINGS

- (a) The class of aircraft, if applicable, shall be endorsed on the licence as a rating.
- (b) Initial class rating.
 - (1) An applicant for a pilot's licence, after successfully meeting all requirements for the issuance of the licence as contained in this Part, shall receive the appropriate licence with the aircraft category, class, and if applicable, type rating endorsed on the licence.
- (c) Additional class ratings.
 - (1) Any additional class rating endorsed on a pilot licence shall indicate the level of licensing privileges at which the class rating is granted.
 - (2) The holder of a pilot licence seeking an additional class rating shall:
 - (3) Meet the requirements of this Part appropriate to the privileges for which the class rating is sought;
 - (4) 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;
 - (5) Pass the required knowledge test unless the applicant holds a class rating within the same category of aircraft, at the same level of pilot licence at either the private or commercial levels; and
 - (6) Pass the required skill test for the aircraft class rating being sought.
 - (d) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a class rating are to act as a pilot on the class of aircraft specified in the rating.

- (e) Validity: Subject to compliance with the requirements specified in this Part, the validity period of:
 - (1) A multi-engine class rating is 1 calendar year.
 - (2) A single-engine class rating; balloon gas or balloon hot air rating is 2 calendar years.
- (f) Renewal Timeframe.
 - (1) For the renewal of a single-engine class rating, a balloon gas rating or a balloon hot air rating, the pilot shall:
 - (i) Within the preceding 24 calendar months, complete a proficiency check on areas of operation listed in the skill test that is applicable to the level of licence, category and class rating; and
 - (ii) Have completed 12 hours flight time within the 12 months preceding the expiry date.
 - (2) For the renewal of a multi-engine class rating the pilot shall:
 - (i) Within the preceding 12 calendar months, complete a proficiency check on the subjects listed in the skill test that is applicable to the level of licence, category and class rating; and
 - (ii) Have completed 10 route sectors within the 3 months preceding the expiry date.
 - (3) Where applicable the proficiency check shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.
 - (4) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.
- (g) Re-issue. If the class rating has expired the applicant shall:
 - (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) Pass the required skill test for the applicable aircraft category and/or class.
 - (3) Where applicable the skill test shall include instrument procedures, including instrument approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure.

2.3.2.4 TYPE RATINGS

- (a) The type rating shall be endorsed on the licence as a rating, including any limitations.
- (b) A pilot seeking an aircraft type rating to be added on a pilot licence shall:
 - (1) Hold or concurrently obtain an instrument rating that is appropriate to the aircraft category, class or type rating sought;

- (2) Have an endorsement in his or her logbook or training record from a authorised instructor that the applicant has been found competent in the required aeronautical knowledge and flight instruction areas;
 - (3) Pass the required skill test at the ATPL level, applying crew resource management concepts, applicable to the aircraft category, class and type rating being sought;
 - (i) Applicants seeking a private or commercial license in an aircraft that requires a type rating shall also complete the applicable portions of either the PPL or CPL skill test in conjunction with the ATPL skill test.
 - (4) Perform the skill test under instrument flight rules unless the aircraft used for the skill test is not capable of the instrument manoeuvres and procedures required for the skill test in which case the applicant may:
 - (5) Obtain a type rating limited to “VFR only,” and
 - (6) Remove the “VFR only” limitation for each aircraft type in which the applicant demonstrates compliance with the ATPL skill test under instrument conditions.
- (c) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a type rating are to act as a pilot on the type of aircraft specified in the rating. When a type rating is issued limiting the privileges to act as co-pilot or limiting the privileges to act as pilot only during the cruise phase of flight, such limitation shall be endorsed on the rating.
- (d) Validity. Subject to compliance with the requirements in this Part, the validity period of a type rating is 1 calendar year.
- (e) Renewal. For the renewal of a type rating the pilot shall:
- (1) Within the preceding 12 calendar months, complete a proficiency check: in the areas of operation listed in the skill test for the appropriate category, type and if applicable class of aircraft.
 - (2) Have completed 10 route sectors within the 3 months preceding the expiry date.
 - (3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.
- (f) Re-issue. If the type rating has been expired the applicant shall:
- (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) Pass the required skill test for the appropriate category, type and if applicable class of aircraft.

2.3.2.5 CATEGORY II AND III AUTHORISATION

- (a) The DCAL will issue a Category II or Category III pilot authorisation by letter, to accompany the pilot’s licence, when the pilot meets the requirements contained in paragraph and IS 2.3.2.5.
- (b) General.

- (1) A person, not flying for an AOC holder under Part 9, may not act as pilot of an aircraft during Category II or III operations unless that person holds a Category II or III pilot authorisation for that category, class or type of aircraft.
 - (2) The applicant for a Category II or III pilot authorisation shall:
 - (3) Hold a pilot licence with an instrument rating or an ATPL; and
 - (4) Hold a category and class or type rating for the aircraft for which the authorisation is sought.
- (c) Knowledge. The applicant for a Category II or III pilot authorisation shall have completed the theoretical knowledge instruction on the subjects as listed in IS 2.3.2.5.
- (d) Experience. The applicant for a Category II or III pilot authorisation shall have at least:
- (1) 50 hours of night flight time as PIC;
 - (2) 75 hours of instrument time under actual or simulated instrument conditions; and
 - (3) 250 hours of cross-country flight time as PIC.
- (e) Flight instruction. The applicant for a Category II or III pilot authorisation shall have completed the flight instruction on the areas of operation listed in IS 2.3.2.5.
- (f) Skill. The applicant for a Category II or III pilot authorisation shall pass a skill test including the areas of operation listed in IS 2.3.2.5.
- (g) Validity. Subject to compliance with the requirements specified in this Part, the validity period of a Category II and III authorisation is 6 months.
- (h) Renewal. For the renewal of a Category II or III pilot authorisation the pilot shall have completed a proficiency check including the areas of operation listed in IS 2.3.2.5.
- (i) Re-issue. If the Category II or the Category III have been expired the applicant shall:
- (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) Pass the required skill test on the subjects listed in IS 2.3.2.5.

2.3.2.6 COMPLEX AEROPLANE ENDORSEMENT

- (a) No person shall act as pilot in command of a complex aeroplane, including a seaplane, unless the person has:
- (1) Received and logged ground and flight training from an authorised instructor in a complex aeroplane or flight simulation training device that is representative of a complex aeroplane and has been found proficient in the operation and systems of the aeroplane; and
 - (2) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that person is proficient to operate a high performance aeroplane.

2.3.2.7 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 complex aeroplane.

2.3.2.8 HIGH ALTITUDE AIRCRAFT ENDORSEMENT

- (a) No person shall act as pilot in command of a pressurized aircraft capable of operating at high altitudes (an aircraft that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 MSL) unless the person has:
 - (1) Received and logged ground training from an 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.
- (b) Received and logged flight training from an authorised instructor and received an endorsement in the logbook from the instructor certifying the person has satisfactorily accomplished flight training in an aircraft or in a flight simulation training device that is representative of a pressurized aircraft, in at least the in the following subjects:
 - (i) Normal cruise flight operations while operating above 25,000 feet MSL;
 - (ii) Proper emergency procedures for simulated rapid decompression without actually depressurizing the aircraft; and
 - (iii) Emergency descent procedures.

2.3.3 STUDENT PILOTS

2.3.3.1 GENERAL REQUIREMENTS

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

Note: The age limit has been chosen arbitrarily.

- (b) Knowledge. The applicant for a student pilot authorisation shall receive and log ground training from an authorised instructor on the following subjects:
 - (1) Applicable sections of Part 2 for the category of aircraft to be flown and Part 8;

- (2) Airspace rules and procedures for the aerodrome where the student will perform solo flight; and
 - (3) Flight characteristics and operation limitations for the make and model of aircraft to be flown.
- (c) Pre-solo flight instruction. Prior to conducting a solo flight, a student pilot shall have:
- (1) Received and logged flight training for the manoeuvres and procedures applicable to the aircraft category including flight training in those manoeuvres and procedures at night, if the solo flight is to be conducted at night.
 - (2) Demonstrated satisfactory proficiency and safety, as judged by an authorised instructor, on the manoeuvres and procedures for the appropriate category, and class if applicable, of aircraft.
- (d) Solo flight requirements: A student pilot shall not fly solo:
- (1) Unless holding at least a Class 2 Medical Certificate; and
 - (2) With the authority of an authorised flight instructor, and
 - (3) In international flight unless there is a special or general arrangement between Lao PDR and the intended State of flight.

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

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

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

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

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

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

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

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

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

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

2.3.3.7 STUDENT PILOT MANOEUVRES AND PROCEDURES FOR PRE-SOLO FLIGHT TRAINING—GLIDER CATEGORY

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

2.3.4 PRIVATE PILOT LICENCE

2.3.4.1 GENERAL REQUIREMENTS

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

- (i) Human performance relevant to the appropriate category of aircraft.
- (ii) Principles of threat and error management.
- (5) Meteorology:
 - (i) Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions.
- (6) Navigation:
 - (i) Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts.
- (7) Operational procedures:
 - (i) Application of threat and a error management to operational procedures.
 - (ii) Altimeter setting procedures.
 - (iii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations.
 - (iv) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards.
 - (v) In the case of the helicopter, and if applicable, powered lift, settling with power; ground resonance; retreating blade stall; dynamic roll-over and other operation hazards; safety procedures, associated with flight under visual meteorological conditions (VMC).
- (8) Principles of flight:
 - (i) Principles of flight relating to the appropriate category of aircraft.
- (9) Radiotelephony:
 - (i) Communications procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.
- (d) Knowledge testing. The applicant for a PPL shall:
 - (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required written knowledge test on the knowledge areas listed in item (c).
- (e) Experience and flight instruction. An applicant for a PPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
- (f) Skill. The applicant for a PPL shall:

- (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
- (2) Have demonstrated by passing a skill test the ability to perform as PIC of an aircraft, within the appropriate category areas of operation described in the appropriate IS listed below, with a degree of competency appropriate to the privileges granted to the holder of a PPL.
- (3) Have demonstrated the ability to—
 - (i) 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.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a PPL shall be to act, but not for remuneration, as PIC or co-pilot of an aeroplane aircraft within the appropriate aircraft category engaged in non-revenue flights.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal or reissue, see 2.2.1.7

2.3.4.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL – AEROPLANE CATEGORY

- (a) Experience.
 - (1) The applicant for a PPL(A) shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as pilot of aeroplanes, appropriate to the class rating sought. The DCAL shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 or 35 hours, as the case may be. Credit for such experience shall be limited to a total of 5 hours if completed in under instruction in a flight simulator or flight procedures trainer approved by the DCAL.
 - (2) When the applicant has flight time as a pilot of aircraft in other categories, the DCAL shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of para 2.3.4.2(a)(1) may be credited with 10 hours of the total flight time as PIC towards a PPL(A).
 - (3) The applicant shall have completed in aeroplanes not less than 10 hours of solo flight time under the supervision of an authorised flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.
- (b) Flight Instruction.
 - (1) The applicant for a PPL(A) shall receive and log not less than 20 hours of dual instruction from an authorized instructor on the subjects listed in IS 2.3.4.2.

These 20 hours may include 5 hours completed in a flight simulation training device. The 20 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full-stop landings at two different aerodromes shall be made.

- (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:
 - (i) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
 - (ii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iii) Control of the aeroplane by external visual reference;
 - (iv) Flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;
 - (v) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
 - (vi) Normal and cross-wind take-offs and landings;
 - (vii) Maximum performance (short field and obstacle clearance take-offs, short-field landings);
 - (viii) Flight by reference solely to instruments, including the completion of a level 180 degrees turn;
 - (ix) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
 - (x) Emergency operations, including simulated aeroplane equipment malfunctions; and
 - (xi) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.
 - (xii) As further specified in IS 2.3.4.2.
- (3) If the privileges of the PPL(A) are to be exercised at night, the applicant shall have received 4 hours dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.

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

2.3.4.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL— HELICOPTER CATEGORY

- (a) Experience.
 - (1) The applicant for a PPL(H) shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as a pilot of helicopters. The Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 or 35 hours, as the case may be. Credit for such

experience shall be limited to a total of 5 hours if completed under instruction in a flight simulation training device approved by the Authority.

- (2) When the applicant has flight time as a pilot of aircraft in other categories, the DCAL shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of para 2.3.4.3(a)(1) may be credited with 10 hours of the total flight time as PIC towards a PPL(H).
- (3) The applicant shall have completed in helicopter not less than 10 hours of solo flight time under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.

(b) Flight Instruction.

- (1) The applicant for a PPL(H) shall receive and log not less than 20 hours of dual instruction from an authorized instructor on the subjects listed in IS 2.3.4.3. These 20 hours may include 5 hours completed in a flight simulation training device. The 20 hours of dual instruction shall include at least 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.
- (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
 - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) Control of the helicopter by external visual reference;
 - (v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground;
 - (vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
 - (viii) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids including a flight of at least one hour;
 - (ix) Emergency operations, including simulated helicopter equipment malfunctions; autorotative approach and landing; and
 - (x) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

- (xi) If the privileges of the PPL(H) are to be exercised at night, the applicant shall have received 4 hours dual instruction in helicopters in night flying, including take-offs, landings and 1 hour of navigation.
- (c) The requirements for the skill test for the PPL(H) are included in IS 2.3.4.3.

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

- (a) Experience.
 - (1) The applicant for a PPL- Powered Lift shall have completed not less than 40 hours of flight time as pilot of powered lift. The DCA shall determine whether such experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 hours.
 - (2) When the applicant has flight time as a pilot of aircraft in other categories; the DCAL shall determine whether such experience is acceptable and if so, the extent to which the flight time in item (a) may be reduced.
 - (3) The applicant shall have completed in a powered lift aircraft not less than 10 hours of solo flight time under the supervision of an authorised flight instructor, including five hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150 NM) in the course of which full stop landings at two different aerodromes shall be made.
- (b) Flight Instruction. The applicant shall have received not less than 20 hours dual instruction from an authorised instructor in at least the following areas:
 - (1) Recognise threat and error management;
 - (2) Pre-flight operations, including mass and balance determination, powered lift inspection and servicing;
 - (3) Aerodrome and traffic operations, collision avoidance precautions and procedures;
 - (4) Control of the powered lift by external visual reference;
 - (5) Ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings – normal, out of wind and slopping ground;
 - (6) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
 - (7) Flight by reference solely to instruments, including the completion of a level 180 degree turn;
 - (8) Recovery at the incident stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (9) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
 - (10) Emergency operations, including simulated powered lift equipment malfunctions; power of reconversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable; and

- (11) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures,
 - (12) communication procedures and phraseology.
- (c) The requirements for the skill test for the PPL-powered-lift category are included in IS 2.3.4.4.

2.3.4.5 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL—AIRSHIP CATEGORY

- (a) Experience. The applicant for a PPL- Airship shall have completed not less than 25 hours of flight time as pilot of airships including at least:
- (1) Three hours of cross-country flight training in an airship with a cross-country flight totalling not less than 45 kilometres (25 NM);
 - (2) Five take-offs and five landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern of an aerodrome;
 - (3) Three hours of instrument time; and
 - (4) Five hours as pilot assuming the duties of the PIC under the supervision of the PIC.
- (b) Flight Instruction. The applicant shall have received dual instruction from an authorised instructor in at least the following areas:
- (1) Recognize and manage threats and errors;
 - (2) Pre-flight operations, including mass and balance determination, airships inspections and servicing;
 - (3) Ground reference manoeuvres;
 - (4) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (5) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
 - (6) Control of the airships by external visual reference;
 - (7) Take-offs and landings and go-around;
 - (8) Maximum performance (obstacle clearance) take-offs;
 - (9) Flight by reference solely to instruments, including the completion of a level 180 degree turn;
 - (10) Navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;
 - (11) Emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and
 - (12) communication procedures and phraseology.
- (c) The requirements for the skill test for the PPL—Airship are included in IS 2.3.4.5.

2.3.4.6 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL—BALLOON CATEGORY

- (a) Experience. The applicant for a PPL- balloon shall have completed not less than 16 hours of flight time as pilot of balloons including at least 8 launches and accents, at least one of which must be solo.
- (b) Flight Instruction. The applicant shall have received dual instruction in free balloons from an authorised instructor in at least the following areas:
 - (1) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;
 - (2) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
 - (3) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
 - (4) Collision avoidance precautions;
 - (5) Control of a free balloon by external visual references;
 - (6) Recognition of and recovery from rapid descents;
 - (7) Cross-country flying using visual reference and dead reckoning;
 - (8) Approaches and landings, including ground handling; and
 - (9) Emergency procedures.
- (c) The requirements for the skill test for the PPL-Balloon category are included in IS 2.3.4.6.

2.3.4.7 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE PPL—GLIDER CATEGORY

- (a) Experience. The applicant shall have completed not less than 6 hours of flight time as a pilot of gliders including 2 hours' solo flight time during which not less than 20 launches and landings have been performed.
- (b) Flight instruction. The applicant shall have received dual instruction in gliders from an authorised instructor in at least the following areas:
 - (1) Pre-flight operations, including glider assembly and inspection;
 - (2) Techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;
 - (3) Traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Control of the glider by external visual reference;
 - (5) Flight throughout the flight envelope;
 - (6) Recognition of, and recovery from, incipient and full stalls and spiral dives;
 - (7) Normal and cross-wind launches, approaches and landings;
 - (8) Cross-country flying using visual reference and dead reckoning; and

- (9) Emergency procedures.
- (c) Crediting of time in other aircraft categories. The holder of a pilot licence in the aeroplane category may be credited with 3 hours towards the 6 hours of flight time required for the glider licence.
- (d) The requirements for the skill test for the PPL—glider category are included in the IS 2.3.4.7.

2.3.5 COMMERCIAL PILOT LICENCE

2.3.5.1 GENERAL REQUIREMENTS

- (a) Age. The applicant for a CPL shall be not less than 18 years of age.
- (b) Medical fitness. The applicant for a CPL shall hold a current Class 1 Medical Certificate issued under this Part.
- (c) Knowledge areas. The applicant for a CPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft to be included on the licence:
 - (1) Air law:
 - (i) Rules and regulations relevant to the holder of a CPL;
 - (ii) Rules of the air; appropriate air traffic services practices and procedures.
 - (iii) Aircraft general knowledge;
 - (iv) Principles of operation and functioning of powerplants, systems and instruments;
 - (v) Operating limitations of the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;
 - (vi) Use and serviceability checks of equipment and systems of appropriate aircraft;
 - (vii) Maintenance procedures for airframes, systems and powerplants of appropriate aircraft;
 - (viii) For helicopters and powered-lift, transmission (power-trains) where applicable; and
 - (ix) For airships and balloons, physical properties and practical application of gases.
 - (2) Flight performance, planning and loading:
 - (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
 - (ii) Use and practical application of take-off or launching, landing and other performance data;

- (iii) Pre-flight and en-route flight planning appropriate to commercial operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; and
 - (iv) In the case of helicopter and powered-lift, effects of external loading on handling;
- (3) Human performance:
- (i) Human performance relevant to the appropriate aircraft type; and
 - (ii) Principles of threat and error management.
- (4) Meteorology:
- (i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
 - (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the moment of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions; and
 - (iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance.
- (5) Navigation:
- (i) Air navigation, including the use of aeronautical charts, instruments and navigation aids;
 - (ii) Understanding of the principles and characteristics of appropriate navigation systems; and
 - (iii) Operation of air borne equipment.
 - (iv) In the case of airships:
 - a) Use, limitation and serviceability of avionics and instruments necessary for the control and navigation;
 - b) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids; and
 - c) Principles and characteristics of self-contained and external referenced navigation systems, operations of airborne equipment.
- (6) Operation procedures:
- (i) Application of threat and error management to operational performance;
 - (ii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
 - (iii) Altimeter setting procedures;
 - (iv) Appropriate precautionary and emergency procedures;

- (v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods;
 - (vi) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft; and
 - (vii) In the case of the helicopter, and if applicable powered-lift, settling with power, ground resonance; retreating blade stall; dynamic roll-over and other operational hazards; safety procedures, associated with flight under VFR.
- (7) Principles of flight:
- (i) Principles of flight relating to the appropriate category of aircraft.
- (8) Radiotelephony:
- (i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure; and
 - (ii) As further specified in IS 2.3.5.
- (d) Knowledge testing. The applicant for the CPL shall:
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test on the knowledge subjects listed in IS 2.3.5.
- (e) Experience and flight instruction. An applicant for a CPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
- (f) Skill. The applicant for a CPL shall:
- (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
 - (2) Have demonstrated by passing a skill test the ability to perform as PIC of an aeroplane, the areas of operation described in IS 2.3.5 with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to
 - (i) Operate the aeroplane within its limitations;
 - (ii) Complete all manoeuvres with smoothness and accuracy;
 - (iii) Exercise good judgement and airmanship;
 - (iv) Apply aeronautical knowledge; and
 - (v) Maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a CPL shall be:

- (1) To exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;
 - (2) To act as PIC in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
 - (3) To act as PIC in commercial air transportation in an aircraft within the appropriate aircraft category certificated for single-pilot operation;
 - (4) To act as co-pilot in aircraft within the appropriate aircraft category required to be operated with a co-pilot; and
 - (5) For the airship category, to pilot an airship under IFR.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.1.7.

2.3.5.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL— AEROPLANE CATEGORY

- (a) Experience.
- (1) The applicant for a CPL(A) shall have completed not less than 200 hours of flight time, or 150 hours if completed during a DCAL approved training course provided for in an Approved Training Organisation under Part 3, as a pilot of aeroplanes under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be. Credit for such experience shall limited to a maximum of 10 hours.
 - (2) The applicant shall have completed in aeroplanes not less than:
 - (i) 100 hours as PIC or, in the case of a course of approved training, 70 hours as PIC;
 - (ii) 20 hours of cross-country flight time as PIC including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;
 - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; 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 PIC.
 - (3) When the applicant has flight time as a pilot of aircraft in other categories, DCAL may be credited towards the 200 hours of flight time as follows:
 - (i) 10 hours as PIC in a category other than helicopters; or
 - (ii) 30 hours as PIC holding a PPL(H) on helicopters; or
 - (iii) 100 hours as PIC holding a CPL(H) on helicopters.
 - (4) The applicant for a CPL(A) shall hold a PPL(A) issued under this Part.
- (b) Flight Instruction.

- (1) The applicant for a CPL(A) shall receive and log not less than 25 hours of dual instruction from an authorized instructor. These 25 hours may include 5 hours completed in a flight simulation training device.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
 - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) Control of the aeroplane by external visual reference;
 - (v) Flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;
 - (vi) Flight with asymmetrical power for multi-engine class or type ratings;
 - (vii) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
 - (viii) Normal and cross-wind take-offs and landings;
 - (ix) Maximum performance (short field and obstacle clearance take-offs, short-field landings);
 - (x) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
 - (xi) Cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
 - (xii) Abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;
 - (xiii) Operations to, from and transmitting controlled aerodromes, compliance with air traffic services procedures; and
 - (xiv) Communication procedures and phraseology.
 - (3) The applicant should have received, in actual flight, upset prevention and recovery training approved by the DCAL.
 - (4) If the privileges of the CPL(A) are to be exercised at night, the applicant shall have received 4 hours dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.
- (c) The requirement for the skill test for the commercial pilot licence—aeroplane category are included in IS 2.3.5.3.

2.3.5.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL— HELICOPTER CATEGORY

- (a) Experience.

- (1) The applicant for a CPL(H) licence shall have completed not less than 150 hours of flight time, or 100 hours if completed during an integrated course of approved training provided for in an Approved Training Organisation under Part 3, as a pilot of helicopters, of which 10 hours may have been completed in a flight simulation training device.
 - (2) The applicant shall have completed in helicopters not less than:
 - (i) 35 hours as PIC;
 - (ii) 10 hours of cross-country flight time as PIC including a cross-country flight in the course of which full-stop landings at two different points shall be made;
 - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;
 - (iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.
 - (3) When the applicant has flight time as a pilot of aircraft in other categories, DCAL may be credited towards the 150 hours of flight time as follows:
 - (v) 20 hours as PIC holding a PPL(A) in aeroplanes; or
 - (vi) 50 hours as PIC holding a CPL(A) in aeroplanes.
 - (4) The applicant for a CPL(H) shall hold a PPL(H) under this Part.
- (b) Flight Instruction.
- (1) The applicant for a CPL(H) shall have received and log not less than 30 hours of dual instruction in helicopters from an authorized flight instructor on the subjects listed in IS 2.3.5.5.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
 - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) Control of the helicopter by external visual reference;
 - (v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (vi) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
 - (vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

- (viii) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
 - (ix) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
 - (x) Cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
 - (xi) Abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing; and
 - (xii) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology
 - (xiii) As further specified in IS 2.3.5.5.
- (3) If the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation.
- (c) The requirements for the skill test for the commercial pilot licence—helicopter category are included in IS 2.3.5.5.

2.3.5.4 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – POWERED-LIFT CATEGORY

- (a) Experience.
- (1) The applicant for a CPL powered-lift category shall have completed not less than 200 hours of flight time in a powered-lift, or 150 hours if completed during a course of approved training provided for in an Aviation Training Organisation under Part 3, as a pilot of aircraft. The DCAL may determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.
 - (2) The applicant shall have completed in a powered-lift not less than:
 - (i) 50 hours as pilot in command;
 - (ii) 10 hours in cross-country flying as pilot-in command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full stop landing at two different aerodromes shall be made;
 - (iii) 10 hours of instrument instruction of which not more than 5 hours may be instrument ground time; and
 - (iv) If the privileges are to be exercised at night, 5 hours of night flight including 5 take-offs and landings as PIC.
 - (3) When the applicant has flight time as pilot of aircraft in other categories, the DCA may determine whether such experience is acceptable and if so, the extent to which the flight time requirements in item (a) may be reduced.
- (b) Flight instruction. The applicant shall have received dual instruction in powered-lift from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:

- (1) Recognise and manage threats and errors to minimize their negative effects;
 - (2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
 - (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Control of the powered-lift by external visual reference;
 - (5) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
 - (6) Ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings – normal, out of wind and slopping ground; steep approaches;
 - (7) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
 - (8) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
 - (9) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
 - (10) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
 - (11) Emergency operations, including simulated powered-lift equipment malfunctions, where applicable; power of reversion to autorotation; autorotative approach; transmission and interconnect driveshaft failure; and
 - (12) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, and
 - (13) Communication procedures and phraseology.
- (c) The requirements for the skill test for the commercial pilot licence—powered-lift category are included in IS 2.3.5.4.

2.3.5.5 EXPERIENCE 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 PIC or PIC under supervision in airships, to include not less than:
 - a) 10 hours of cross-country flight time; and

- b) 10 hours of night flight;
 - (iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and
 - (iv) 20 hours of flight training in airships on the areas of operation listed in item (b) below.
- (b) Flight instruction. The applicant shall have received dual instruction in airships from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
- (1) Recognise and manage threats and errors;
 - (2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;
 - (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
 - (5) Control of the airships by external visual reference;
 - (6) Recognition of leak;
 - (7) Normal take-offs and landings;
 - (8) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;
 - (9) Flight under IFR;
 - (10) Cross-country flying using visual reference, dead reckoning and, where applicable, radio navigation aids;
 - (11) Emergency operations, including simulated airship equipment malfunctions;
 - (12) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
 - (13) Communications procedures and phraseology.

The requirements for the skill test for the commercial pilot licence—airship category are included in IS 2.3.5.5.

2.3.5.6 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL—BALLOON CATEGORY

- (a) Experience. The applicant shall have completed at least:
- (1) 35 hours flight time as a pilot, including at least:
 - (i) 20 hours as a pilot of free balloons;
 - (ii) 10 flights in a free balloon; and
 - (iii) 2 flights in a free balloon as the pilot in command.

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

- (c) The requirements for the skill test for the commercial pilot licence—balloon category are included in IS 2.3.5.6.

2.3.5.7 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL – GLIDER CATEGORY

- (a) Experience. The applicant shall have completed at least:
 - (1) 25 hours flight time as a pilot in a glider and that flight time must include at least 100 flights in a glider as pilot in command, including at least
 - (i) 3 hours of flight training or 10 training flight in gliders on the areas of operation listed in (b) below, and
 - (ii) 2 hours of solo flight that includes not less than 10 solo flights in gliders on the areas of operations listed in (b) below; or
 - (2) 200 hours of flight time as a pilot in either aeroplane, helicopter or powered-lift aircraft, and 20 flights in gliders as pilot in command, including at least
 - (i) 3 hours of flight training or 10 training flights in gliders on the areas of operation listed in (b) below, and
 - (ii) 5 solo flights in a glider on the areas of operation listed in (b) below.
- (b) Flight instruction. The applicant shall have received dual instruction in a glider from an authorised instructor in at least the following areas of operation to the level of performance required for a commercial pilot:
 - (1) Recognise and manage threats and errors;
 - (2) Pre-flight preparation;
 - (3) Pre-flight procedures
 - (4) Aerodrome and gliderport operations;
 - (5) Launches and landings;
 - (6) Performance speeds;
 - (7) Soaring techniques;
 - (8) Performance manoeuvres;
 - (9) Navigation
 - (10) Slow flight and stalls
 - (11) Emergency procedures; and
 - (12) Post-flight procedures.

The requirements for the skill test for the commercial pilot license—glider category are included in IS 2.3.5.7.

2.3.6 AIRLINE TRANSPORT PILOT LICENCE

2.3.6.1 GENERAL REQUIREMENTS

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

- (b) Medical fitness. The applicant for an ATPL shall hold a current Class 1 Medical Certificate issued under this Part.
- (c) Knowledge. The applicant for an ATPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges of the ATPL and to the category of aircraft intended to be included on the licence:
 - (1) Air law:
 - (i) Rules and regulations relevant to the holder of an ATPL; rules of the air; appropriate air traffic services practices and procedures
 - (2) Aircraft general knowledge:
 - (i) General characteristics and limitations of electrical, hydraulic, pressurization and other aircraft systems; flight control systems, including autopilot and stability augmentation;
 - (ii) Principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;
 - (iii) Operating procedures and limitations of appropriate aircraft; effects of atmospheric conditions on aircraft performance in accordance to the relevant operational information from the flight manual;
 - (iv) Use and serviceability checks of equipment and systems of the relevant category of aircraft;
 - (v) Flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments and electronic display units;
 - (vi) Maintenance procedures for airframes, systems and powerplants of appropriate aircraft
 - (vii) For helicopter, and if applicable, powered-lift transmission (power-trains);
 - (3) Flight performance and planning:
 - (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
 - (ii) Use and practical application of take-off, landing and other performance data, including procedures for cruise control;
 - (iii) Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures
 - (iv) In the case of helicopter or powered-lift, effects of external loading on handling;
 - (4) Human performance:
 - (i) Human performance including principles of threat error management
 - (5) Meteorology:

- (i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
 - (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the moment of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
 - (iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
 - (iv) In the case of aeroplane and powered-lift, practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jetstreams;
- (6) Navigation:
- (i) Air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
 - (ii) Use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aircraft;
 - (iii) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;
 - (iv) Principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;
- (7) Operation procedures:
- (i) Application of threat and error management to operational performance;
 - (ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
 - (iii) Precautionary and emergency procedures; safety practices;
 - (iv) Operational procedures for carriage of freight and dangerous goods;
 - (v) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;
 - (vi) In the case of helicopter, and if applicable, powered-lift, settling with power; ground resonance; retreating blade stall; dynamic roll-over and other operational hazards; safety procedures, associated with flight under VMC;
- (8) Principles of flight:
- (i) Principles of flight relating to the appropriate aircraft category;
- (9) Radiotelephony
- (i) Communication procedures and phraseology; action to be taken in case of communication failure;

- (d) Knowledge testing. The applicant for the ATPL shall:
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects; and
 - (ii) Certifies that the person is prepared for the required knowledge test; and
 - (2) Pass the required written knowledge test on the knowledge subjects listed in item (c) above.
- (e) Experience and flight instruction. An applicant for an ATPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
- (f) Skill. The applicant for an ATPL shall:
- (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and
 - (2) Have demonstrated by passing a skill test the ability to perform, as PIC of an aircraft of the appropriate category required to be operated with a co-pilot, the following procedures and manoeuvres:
 - (i) Pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;
 - (ii) Normal flight procedures and manoeuvres during all phases of flight;
 - (iii) Abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems and airframe;
 - (iv) Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists; and
 - (v) In the case of the aeroplane and powered-lift, procedures and manoeuvres for instrument flight as described in 2.3.7, including simulated engine failure.
 - (vi) In the case of aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in this paragraph as PIC in a multi-engine aircraft.
 - (3) Have demonstrated by passing a skill test, the ability to perform the areas of operation described in IS 2.3.7.2, IS 2.3.7.3, or IS 2.3.7.4, with a degree of competency appropriate to the privileges granted to the holder of an ATPL, and to:
 - (i) 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 crewmembers and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures (SOPs) and use of checklists.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an ATPL shall be:
- (1) To exercise all the privileges of the holder of a PPL and CPL of an aircraft within the appropriate aircraft category and class, if applicable
 - (2) In the case of a license for the aeroplane and powered-lift categories, to exercise the privileges of the holder of an IR; and
 - (3) To act as PIC and co-pilot in commercial air transportation in an aircraft of the appropriate category, and class if applicable.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.1.7.

2.3.6.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL — AEROPLANE CATEGORY

- (a) Experience.
- (1) The applicant for an ATPL (A) shall have completed not less than 1500 hours of flight time as a pilot of aeroplanes of which a maximum of 100 hours may have been completed in a flight simulation training device. The applicant shall have completed in aeroplanes not less than:
 - (2) 500 hours as OIC undersupervision or 250 hours, either as PIC, or made up by not less than 70 hours as PIC and the necessary additional flight time as PIC under the supervision of the PIC;
 - (3) 200 hours of cross-country flight time, of which not less than 100 hours shall be as PIC or PIC under the supervision;
 - (4) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
 - (5) 100 hours of night flight as PIC or as co-pilot.
 - (6) Holders of a CPL(H) will be credited with 50% of their helicopter flight time as PIC towards the flight time required in (1).
 - (7) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.6.3.
 - (8) The applicant for an ATPL(A) shall be the holder of a CPL(A) with instrument and multi-engine rating issued under this Part.
- (b) Flight Instruction. The applicant for an ATPL(A) shall have received the dual flight instruction required for the issue of the CPL and the IR.

- (c) The skill test. the requirements for the skill test for the ATPL- aeroplane category are included in IS 2.3.7.2

2.3.6.3 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL — HELICOPTER CATEGORY

- (a) Experience.
- (1) The applicant for an ATPL (H) shall have completed not less than 1000 hours of flight time as a pilot of helicopters of which a maximum of 100 hours may have been completed in a flight simulator. The applicant shall have completed in helicopters not less than:
 - (i) 250 hours, either as PIC, or made up by not less than 70 hours as PIC and the necessary additional flight time as PIC under the supervision
 - (ii) 200 hours of cross-country flight time, of which not less than 70 hours as PIC or as PIC under supervision
 - (iii) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time; and
 - (iv) 50 hours of night flight as PIC or as co-pilot.
 - (2) Holders of a CPL(A) will be credited with 50 percent of their aeroplane flight time as PIC towards the flight time required in (1).
 - (3) The applicant shall have completed a CRM course on the subjects listed in IS 2.3.7.3.
 - (4) The applicant for an ATPL(H) shall be the holder of a CPL(H) issued under this Part.
- (b) Flight Instruction. The applicant for an ATPL(H) shall have received the dual flight instruction required for the issue of the CPL.
- (c) Skill test. The requirements for the Skill test for the ATPL-helicopter category are included in IS 2.3.7.3

2.3.6.4 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE ATPL — POWERED-LIFT CATEGORY

- (a) Experience.
- (1) The applicant for an ATPL- powered-lift category shall have completed not less than 1500 hours of flight time as a pilot of powered-lift. The DCAL may determine whether experience completed under instruction in a flight simulator is acceptable as part of the total time of 1500 hours. The applicant shall have completed in powered-lift not less than:
 - (i) 250 hours, either as PIC, or made up by not less than 70 hours as PIC and the necessary additional flight time as PIC under the supervision
 - (ii) 100 hours of cross-country flight time, of which not less than 50 hours shall be as PIC or as PIC under supervision;
 - (iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time.

- (iv) 25 hours of night time as PIC or co-pilot.
- (2) The DCA may determine if pilot flight time in other aircraft categories may be credited toward meeting the 1500 hour flight time in item (1) above.
- (3) The applicant for an ATPL powered-lift shall be the holder of a CPL powered-lift issued under this Part.
- (b) Flight instruction. The applicant for an ATPL powered-lift category shall have received the dual flight instruction required for the issue of the CPL powered lift category and for the issue of the instrument rating.
- (c) Skill test. The requirements for the skill test for the ATPL-powered-left category are included in IS 2.3.7.4.

2.3.7 INSTRUMENT RATING

2.3.7.1 GENERAL REQUIREMENTS

- (a) Age. The applicant for an IR shall be not less than 17 year of age.
- (b) Medical fitness. The applicant for an IR shall hold either a Class 1 or 2 medical certificate issued under this Part as appropriate the level of licence held. The applicant for an IR holding a PPL shall have established his/her hearing acuity on the basis of compliance with the hearing requirements for the issue of a Class 1 Medical Certificate.
- (c) Knowledge. The applicant for an IR shall receive and log ground training from an authorised instructor on the following subjects.
 - (1) Air law:
 - (i) Rules and regulations relevant to flight under IFR; related air traffic services practices and procedures.
 - (2) Aircraft general knowledge for the aircraft category being sought:
 - (i) Use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of aeroplanes under IFR and in instrument meteorological conditions; use and limitations of autopilot.
 - (ii) Compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments.
 - (3) Flight performance and planning for the aircraft category being sought:
 - (i) Pre-flight preparations and checks appropriate to flight under IFR.
 - (ii) Operational flight planning; preparation and filing of air traffic services flight plans under IFR; altimeter setting procedures.
 - (4) Human performance for the aircraft category being sought:
 - (i) Human performance relevant to instrument flight in aircraft.
 - (ii) Principles of threat and error management.
 - (5) Meteorology for the aircraft category being sought:

- (i) Application of aeronautical meteorology; interpretation and use of reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information; altimetry.
 - (ii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance.
 - (iii) In the case of helicopter and powered-lift, effects of rotor icing.
- (6) Navigation:
- (i) Practical air navigation using radio navigation aids.
 - (ii) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids.
- (7) Operation procedures for the aircraft category being sought:
- (i) Application of threat and error management to operational principles.
 - (ii) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach.
 - (iii) Precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria.
- (8) Radiotelephony:
- (i) Communication procedures and phraseology as applied to aircraft operations under IFR; action to be taken in case of communication failure.
- (d) Skill: The applicant shall have demonstrated in an aircraft of the category for which the instrument rating is being sought the ability to perform the procedures and manoeuvres with a degree of competency appropriate to the privileges granted to holder of an instrument rating, and to:
- (1) Recognize and manage threats and errors;
 - (2) Operate the aircraft for the category being sought, within its limitations;
 - (3) Complete all manoeuvres with smoothness and accuracy;
 - (4) Exercise good judgment and airmanship;
 - (5) Apply aeronautical knowledge; and
 - (6) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.
- (e) The applicant shall have demonstrated the ability to operate multi-engined aircraft within the appropriate category by reference solely to instruments with one engine inoperative, or simulated inoperative, if the privileges of the instrument rating are to be exercised on such aircraft.
- (f) Knowledge testing. An applicant for an IR shall:
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:

- (i) Conducted the training on the knowledge subjects.
 - (ii) Certifies that the person is prepared for the required knowledge test.
- (2) Pass the required knowledge test on the knowledge subjects listed in item (c) above.
- (g) Experience and flight instruction. An applicant for an IR shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
- (h) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an IR shall be to pilot an aircraft of the appropriate category under IFR. Before exercising the privileges on multi-engine aircraft the holder of the rating shall have complied with the requirements of 2.3.7.1(e).
- (i) Validity. Subject to compliance with the requirements specified in this Part, the validity period of an IR 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 2.3.8.2.
 - (2) For the renewal of a multi-engine instrument rating the applicant shall within the preceding 12 calendar months, complete a proficiency check on the subjects listed in IS 2.3.8.2.
 - (3) If a pilot takes the proficiency check required in this section in the calendar month before or the calendar month after the month in which it is due, the pilot is considered to have taken it in the month in which it was due for the purpose of computing when the next proficiency check is due.
- (k) Re-issue. If the instrument rating has been expired the applicant shall:
- (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) Pass the required skill test on the subjects listed in IS 2.3.8.2.

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

2.3.7.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE IR

- (a) Experience.
- (1) The applicant for an IR shall hold a pilot license with an aircraft category, and class rating if applicable, for the instrument rating sought.
 - (2) The applicant shall have completed not less than:
 - (i) 50 hours of cross-country flight time as PIC of aircraft in categories acceptable to the DCA, of which not less than 10 hours shall be in the aircraft category being sought; and
 - (ii) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorised instructor.

- (b) Flight Instruction.
- (1) The applicant for an IR shall have not less than 10 hours of the instrument flight time required in 2.3.7.2(a)(2)(ii) while receiving and logging dual instruction in aircraft from an authorised flight instructor.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an instrument rating:
 - (i) Pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic services documents in the preparation of an IFR flight plan.
 - (ii) Pre-flight inspection, use of checklists, taxiing and pre-take-off checks.
 - (iii) Procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least:
 - a) Transition to instrument flight on take-off;
 - b) Standard instrument departures and arrivals;
 - c) En-route IFR procedures and navigation;
 - d) Holding procedures;
 - e) Instrument approaches to specified minima;
 - f) Missed approach procedures; and
 - g) Landings from instrument approaches;
 - (iv) In flight manoeuvres and particular flight characteristics.
 - (3) If the privileges of the instrument rating are to be exercised on multi-engine aircraft, the applicant shall have received dual instrument flight instruction in such an aircraft from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in the operation of the aircraft solely by reference to instruments with one engine inoperative or simulated inoperative.
- (c) Skill. The applicant for an IR shall:
- (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
 - (2) Have demonstrated by passing a skill test the ability to perform the areas of operation described in IS 2.3.7.3 with a degree of competency appropriate to the privileges granted to the holder of an IR, and to:
 - (i) Recognise and manage threats and errors;
 - (ii) Operate the aircraft within its limitations;
 - (iii) Complete all manoeuvres with smoothness and accuracy;
 - (iv) Exercise good judgement and airmanship;
 - (v) Apply aeronautical knowledge;

- (vi) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured;
 - (vii) Understand and apply crew coordination and incapacitation procedures; and
 - (viii) Communicate effectively with the other flight crewmembers.
- (3) Have demonstrated by passing a skill test the ability to operate multi-engine aircraft solely by reference to instruments with one engine inoperative, or simulated inoperative, described in IS 2.3.8.2, if the privileges of the instrument rating are to be exercised on such aircraft.
- (d) The skill test and proficiency check for the instrument rating is included in IS 2.3.8.2

2.3.8 INSTRUCTORS FOR PILOT LICENSING

2.3.8.1 GENERAL REQUIREMENTS

- (a) Applicability.
- (1) This Section prescribes the requirements for the issuance of instructor licences, ratings or authorisations, the conditions under which those ratings and authorisations are necessary, and the privileges and limitations on those ratings and authorisations are issued under this part.
 - (2) The following instructor licences, ratings and authorisations are issued under this part:
 - (i) Flight Instructor licence;
 - (ii) Ground Instructor licence, with basic or advanced ratings; and
 - (iii) Instructor Authorisation for Flight Simulation Training.

2.3.8.2 FLIGHT INSTRUCTOR LICENCE REQUIREMENTS, SKILL TEST AND PROFICIENCY CHECK

- (a) Age. The applicant for a flight instructor licence shall be of the appropriate age for the underlying licence to be held.
- (b) Medical Fitness. The applicant for a flight instructor licence shall have a Class 1 medical certificate.
- (c) Knowledge.
- (1) Receive and log training from an authorised instructor and pass a flight instructor knowledge test on:
 - (i) The aeronautical knowledge areas for a student, private and commercial pilot license applicable to the aircraft category for which flight instructor privileges are sought; and
 - (ii) The aeronautical knowledge areas for the instrument rating applicable to the category for which instrument flight instructor privileges are sought.
 - (2) Meet the requirements for fundamentals of knowledge instruction as listed in 2.2.6

- (d) Experience. The applicant shall hold a licence with the aircraft category, and if applicable class and/or type rating, that is appropriate to the flight instructor rating sought as follows:
- (1) For an instructor licence in the aeroplane category – hold either a CPL or ATPL aeroplane category with instrument rating and appropriate class and/ or type ratings;
 - (2) For an instructor licence in the powered-lift category – hold either a CPL or ATPL powered-lift category with instrument rating an as applicable, class or type rating;
 - (3) For an instructor licence in the helicopter category – hold either a CPL or ATPL helicopter category and any applicable class or type rating;
 - (4) For an instructor licence in the balloon category – hold a CPL balloon category with applicable class rating;
 - (5) For an instructor licence in the airship category – hold a CPL airship category and any applicable ratings;
 - (6) For an instructor licence in the glider category – hold a CPL glider category and any applicable ratings; and
 - (7) For an instructor instrument rating licence– hold an IR in the appropriate category of aircraft.
- (e) Flight Instruction. Receive flight instruction from an authorised instructor in the areas of:
- (1) Flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
 - (2) Have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.
- (f) Skill.
- (1) Receive a logbook endorsement from an authorised instructor to indicate that the applicant is proficient on the areas of operation listed in item 2 below, appropriate to the flight instructor rating sought;
 - (2) Pass the required skill test that is appropriate to the flight instructor licence sought on the areas of operation in IS 2.3.9.2 in an—
 - (i) Aircraft that is representative of the category of aircraft, and if applicable class and/or type, for the aircraft rating sought; or
 - (ii) Approved flight simulation training device that is representative of the category, and if applicable class and/or type of aircraft for the licence and rating sought, and used in accordance with an approved course at an ATO certified under Part 3.
- (g) Privileges, limitations and qualifications.

- (1) A flight instructor is authorised within the limitations of that person's flight instructor licence, and pilot license and ratings, to give training and endorsements that are required for, and relate to:
 - (i) A student pilot authorisation;
 - (ii) A pilot license;
 - (iii) A flight instructor licence;
 - (iv) A ground instructor licence;
 - (v) An aircraft category rating;
 - (vi) An aircraft class rating;
 - (vii) An instrument rating;
 - (viii) A proficiency check or recency of experience requirement;
 - (ix) A knowledge test; and
 - (x) A skill test.

- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of instructor licence is 2 years.

- (i) Renewal. A flight instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder—
 - (1) Passes a skill test for—
 - (i) Renewal of the flight instructor license; or
 - (ii) An additional flight instructor rating; or
 - (2) Presents to an DCA inspector—
 - (i) A record of training students that shows during the preceding 24 calendar months the flight instructor has endorsed at least five students for a skill test for a license or rating, and at least 80 percent of those students passed that test on the first attempt;
 - (ii) A record that shows that within the preceding 24 calendar months, service as a company check pilot, chief flight instructor, company check airman, or flight instructor in a Part 9 operation, or in a position involving the regular evaluation of pilots; or
 - (iii) A graduation certificate showing that the pilot has successfully completed an approved flight instructor refresher course consisting of ground training or flight training, or both, within the 90 days preceding the expiration month of his or her flight instructor licence.
 - (3) If a flight instructor accomplishes the renewal requirements within the 90 days preceding the expiration month of his or her flight instructor licence—
 - (i) The DCA shall consider that the flight instructor accomplished the renewal requirement in the month due; and

- (ii) The DCA shall renew the current flight instructor rating for an additional 24 calendar months from its expiration date.
- (4) A flight instructor may accomplish the skill test required by this subsection in an approved course conducted by an ATO certified under Part 3.
- (j) Reissue. If the instructor licence has expired, the applicant shall:
 - (1) Have received refresher training from an authorised instructor with an endorsement that the person is prepared for the required skill test; and
 - (2) Pass the prescribed skill test.
- (k) Additional Flight Instructor licences. An applicant for an additional flight instructor licence shall meet the requirements listed in 2.3.9.2 that apply to the flight instructor rating sought.
- (l) Flight Instructor Records. A flight instructor shall--
 - (1) Sign the logbook of each person to whom that instructor has given flight training or ground training.
 - (2) Maintain a record in a logbook or separate document that contains the following—
 - (i) The name of each person whose logbook or student pilot licence that instructor has endorsed for solo flight privileges, and the date of the endorsement; and
 - (ii) The name of each person that instructor has endorsed for a knowledge test or skill test, and a record of the kind of test, the date, and the results.
 - (3) Retain the records required by this subsection for at least 3 years.
- (m) Flight Instructor Limitations and Qualifications. The holder of a flight instructor licence shall observe the following limitations and qualifications.
 - (1) Hours of training. In any 24-consecutive-hour period, a flight instructor may not conduct more than 8 hours of flight training.
 - (2) Required licence and ratings. A flight instructor may not conduct flight training in any aircraft for which the flight instructor does not hold a pilot license and flight instructor license with the applicable category and if applicable class or type rating.
 - (3) For instrument flight training or for training for a type rating not limited to VFR, an appropriate instrument rating on his or her flight instructor rating and pilot license.
 - (4) Limitations on endorsements. A flight instructor may not endorse the following:
 - (i) Student pilot's license or logbook for solo flight privileges, unless that flight instructor has—
 - a) Given that student the flight training required for solo flight privileges required by this subpart;
 - b) Determined that the student is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the

- student's logbook that the instructor considers necessary for the safety of the flight;
- c) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and
 - d) Endorsed the student pilot's logbook for the specific make and model aircraft to be flown.
- (ii) Student pilot's license and logbook for a solo cross-country flight, unless that flight instructor has determined that—
- a) The student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and
 - b) The student has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown.
- (iii) Student pilot's license and logbook for solo flight in a Class B airspace area or at an airport within Class B airspace unless that flight instructor has—
- a) Given that student ground and flight training in that Class B airspace or at that airport; and
 - b) Determined that the student is proficient to operate the aircraft safely.
- (iv) Logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements 8.4.1.11(a)(3); or
- (v) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements of 8.4.1.10(b).
- (5) Training in a multiengine aeroplane or a helicopter. A flight instructor may not give training required for the issuance of a license or rating in a multiengine aeroplane or a helicopter, unless that flight instructor has at least 5 flight hours of PIC time in the specific make and model of multiengine aeroplane or helicopter, as appropriate.
- (6) Qualifications of the flight instructor for training first-time flight instructor applicants.
- (i) No flight instructor may provide instruction to another pilot who has never held a flight instructor license unless that flight instructor—
 - a) Holds a current ground or flight instructor license with the appropriate rating, has held that license for at least 24 months, and has given at least 40 hours of ground training; or
 - b) Holds a current ground or flight instructor license with the appropriate rating, and has given at least 100 hours of ground training in a course which has been approved by the DCA.
 - c) Meets the eligibility requirements prescribed in 2.2.6.
 - d) For training in preparation for an aeroplane or helicopter rating, has given at least 200 hours of flight training as a flight instructor.

- e) For training in preparation for a glider rating, has given at least 80 hours of flight training as a flight instructor.
- (7) Prohibition against self endorsements. A flight instructor may not make any self-endorsement for a license, rating, flight review, authorisation, operating privilege, skill test, or knowledge test that is required by Part 2.
- (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.
- (n) The skill test and proficiency check for flight instructor ratings in the categories of aeroplane, helicopter, powered-lift, airship, balloon, and glider, as well as instrument ratings (aeroplane, helicopter, and powered-lift) and additional type ratings are included in IS 2.3.8.3.

2.3.8.3 INSTRUCTOR AUTHORISATION FOR FLIGHT SIMULATION TRAINING

- (a) Current and former holders of professional pilot licenses, having instructional experience can apply for an authorisation to provide flight instruction in a flight simulation training device, provided the applicant has at least 2 years experience as instructor in synthetic flight trainers.
 - (1) Skill. The applicant shall have demonstrated in a skill test, in the category and in the class or type of aircraft for which instructor authorisation privileges are sought, the ability to instruct in those areas in which ground instruction is to be given.
 - (2) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an authorisation are to carry out synthetic flight training instruction for the issue of a class or type rating in the appropriate category of aircraft.
 - (3) Validity. Subject to compliance with the requirements specified in this Part, the validity period of an instructor authorisation for flight simulation training is 1 years
 - (4) Renewal. Renewal of the authorisation requires the successful completion of a proficiency check.
 - (5) Reissue. If the authorisation has expired, the applicant must complete refresher training and successfully pass a skill test in the category and class or type of aircraft for which instructor authorisation privileges are sought.

2.3.8.4 GROUND INSTRUCTOR AUTHORISATION

- (a) Age. The applicant for a ground instructor licence shall be at least 18 years of age.
- (b) Knowledge.
 - (1) Receive and log training from an authorised instructor and pass a knowledge test on the aeronautical knowledge areas appropriate to the aircraft category, for the licence and ratings below as applicable—
 - (i) For a basic rating, the knowledge for a student and private pilot licence as listed in this Part;

- (ii) For an advanced rating, the student, private, commercial and airline transport pilot knowledge areas as listed in this Part.
 - (iii) For an instrument rating, the knowledge for the instrument rating as listed in this Part.
 - (2) Meet the requirements of for fundamentals of knowledge instructing as listed in 2.2.6
- (c) Privileges. The holder of a ground instructor licence may exercise the privileges appropriate to the licence and rating held.
 - (1) A person who holds a ground instructor licence with a basic rating is authorised to provide—
 - (i) Ground training in the aeronautical knowledge areas required for the issuance of a student pilot authorisation or private pilot license or associated ratings;
 - (ii) Ground training required for a private pilot flight review; and
 - (iii) A recommendation for a knowledge test required for the issuance of a private pilot license.
 - (2) A person who holds a ground instructor licence with an advanced rating is authorised to provide—
 - (i) Ground training in the aeronautical knowledge areas required for the issuance of any license or rating;
 - (ii) Ground training required for any flight review; and
 - (iii) A recommendation for a knowledge test required for the issuance of any license.
 - (3) A person who holds an instrument ground instructor rating is authorised to provide—
 - (i) Ground training in the aeronautical knowledge areas required for the issuance of an instrument rating;
 - (ii) Ground training required for an instrument proficiency check; and
 - (iii) A recommendation for a knowledge test required for the issuance of an instrument rating.
 - (4) A person who holds a ground instructor license is authorised, within the limitations of the licence and ratings on the ground instructor license, to endorse the logbook or other training record of a person to whom the holder has provided the training or recommendation specified in (1) through (3) of this subsection.
- (d) Currency Requirements. The validity period for a ground instructor license is 5 years.
 - (1) The holder of a ground instructor license may not perform the duties of a ground instructor unless, within the preceding 12 months—
 - (i) The person has served for at least 3 months as a ground instructor; or

- (ii) The person has received an endorsement from an authorised ground or flight instructor certifying that the person has demonstrated satisfactory proficiency with the standards prescribed in this part for the authorisation and rating.

2.3.9 DESIGNATED PILOT EXAMINERS

2.3.9.1 GENERAL REQUIREMENTS

- (a) Age. An applicant for a designated pilot examiner shall be at least 21 years of age.
- (b) Medical. An applicant for a designated pilot examiner shall have a Class 1 medical certificate.
- (c) General Eligibility. An applicant for a designated pilot examiner shall:
 - (1) Hold at least the licence and/or class/type ratings as applicable for which examining authority is sought;
 - (2) Hold at least the flight instructor ratings for which examining authority is sought or be serving in a comparable position as an air operator check airman or check pilot or comparable position in an Approved Training Organisation;
 - (3) Have a reputation for integrity and dependability in the industry and the community;
 - (4) Have a good record as a pilot and flight instructor in regard to accidents, incidents, and violations; and
 - (5) Have pilot and instructor licence/ratings that have never been revoked for falsification or forgery.
- (d) Knowledge: The applicant for a designated pilot examiner shall pass a pre-designation knowledge test in the areas appropriate to the category of aircraft for which designation is sought.
- (e) Skill test. The applicant for a designated pilot examiner shall pass a skill test conducted by an inspector of the DCA who holds a current and valid licence with appropriate category, and if applicable class and type ratings, in the areas of operation contained in IS 2.3.10.1.
- (f) Maintaining currency. After designation, a designated pilot examiner shall maintain currency by:
 - (1) Attending initial and recurrent training provided by the DCA, and
 - (2) Maintain a current and valid:
 - (i) Pilot licence, and if applicable, class/type ratings appropriate to the designation;
 - (ii) Flight instructor licence and ratings applicable to the designation; and
 - (iii) Class I medical certificate.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the examiner's designation are to conduct skill tests and proficiency

checks for a licence and rating(s) as listed on the designated pilot examiner's certificate of designation and identification card.

- (h) **Validity.** Subject to compliance with the requirements specified in this Part, the validity period of an examiner's designation is 3 years.
- (i) **Renewal.**
 - (1) Renewal will be at the discretion of the DCA.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS 2.3.10.1.
- (j) **Additional designations.** When the DCA deems it necessary for a designated pilot examiner to receive additional designations, the designated pilot examiner:
 - (1) Shall meet all the requirements in this Part for the designation;
 - (2) Need not take an additional knowledge test provided the designation is within the same aircraft category.
- (k) The requirements for the designation of a pilot examiner are included in IS 2.3.10.1

2.3.9.2 EXPERIENCE REQUIREMENTS FOR PRIVATE PILOT EXAMINER (PPE)

- (a) **Experience: PPE—Aeroplane Category.** The applicant shall have at least:
 - (1) A CPL(A), appropriate class rating(s) and in IR(A);
 - (2) A valid flight instructor licence with an aeroplane category and appropriate class rating(s).
 - (3) 2,000 hours as PIC which includes at least:
 - (i) 1,000 hours in aeroplanes, of which 300 hours were accrued within the past year;
 - (ii) 300 hours in the class of airplane for which the designation is sought; and
 - (iii) 100 hours in aeroplanes at night.
 - (4) 500 hours as a flight instructor in aeroplanes which includes at least 100 hours of flight instruction given in the class of aeroplane appropriate to the designation sought.
- (b) **Experience: PPE—Helicopter Category.** The applicant shall have at least:
 - (1) A CPL(H), appropriate class rating(s).
 - (2) A valid flight instructor licence with a helicopter category and appropriate class rating(s).
 - (3) 1,000 hours as PIC which includes at least:
 - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year; and
 - (ii) 250 hours in helicopters as appropriate for the designation sought.

- (4) 200 hours as a flight instructor in helicopters, as appropriate for the designation sought.
- (c) Experience: PPE—Powered-Lift Category. The applicant shall have at least:
- (1) A CPL powered-lift category with an instrument powered-lift rating.
 - (2) A valid flight instructor licence with a powered-lift category.
 - (3) 2,000 hours as PIC which includes at least:
 - (i) 1,000 hours in powered-lift, of which 300 hours were accrued within the past year; and
 - (ii) 100 hours in powered-lift at night.
 - (4) 500 hours as a flight instructor in powered-lift.
- (d) Experience: PPE—Airship Category. The applicant shall have at least:
- (1) A CPL airship category and any applicable class rating(s).
 - (2) A valid flight instructor licence with an airship category and any applicable class rating(s).
 - (3) 1,000 hours as PIC which includes at least:
 - (i) 500 hours in airships, of which 200 hours were accrued within the past year; and
 - (ii) 50 hours in airships at night.
 - (4) 100 hours as a flight instructor in airships.
- (e) Experience: PPE—Balloon Category. The applicant shall have at least:
- (1) A CPL balloon category and applicable class rating(s).
 - (2) A valid flight instructor licence with a balloon category and appropriate class rating(s).
 - (3) 200 hours as PIC which includes at least:
 - (i) 100 hours in balloons; and
 - (ii) 20 hours in balloons in the class for which the designation is sought within the past year, including 10 flights in balloons of at least 30 minutes duration each.
 - (4) 50 hours as a flight instructor in balloons in the class for which the designation is sought, of which 10 hours were accrued within the past year.
- (f) Experience: PPE—Glider Category. The applicant shall have at least:
- (1) A CPL glider category rating.
 - (2) A valid flight instructor licence with a glider category rating.
 - (3) 500 hours as PIC which includes at least:
 - (i) 200 hours in gliders; and

- (ii) 10 hours in gliders within the past year that includes at least 10 flights in gliders.
- (4) 100 hours as a flight instructor in gliders.

2.3.9.3 EXPERIENCE REQUIREMENTS FOR COMMERCIAL AND INSTRUMENT RATING PILOT EXAMINER (CIRE)

- (a) Experience: CIRE—Aeroplane Category. The examiner applicant shall have at least:
 - (1) A commercial pilot licence with an aeroplane category rating, appropriate class rating(s) and an Instrument –Aeroplane rating.
 - (2) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.
 - (3) 2,000 hours as PIC, which includes at least:
 - (i) 1,000 hours in aeroplanes, of which 300 hours were accrued within the past year;
 - (ii) 500 hours in the class of aeroplane for which the designation is sought;
 - (iii) 100 hours at night in aeroplanes;
 - (iv) 100 hours if instrument flight time in actual or simulated conditions; and
 - (v) For DCA to conduct skill tests in large or turbine-powered aeroplanes—
 - a) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought, and
 - b) 25 hours for each additional type of large aeroplane for which designation is sought;
 - (4) 500 hours as a flight instructor in aeroplanes which include at least:
 - (i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought; and
 - (ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes.
- (b) Experience: CIRE—Helicopter Category. The examiner applicant shall have at least:
 - (1) A commercial pilot licence with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.
 - (2) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year.
 - (ii) 500 hours in the class of aeroplane for which the designation is sought.
 - (iii) 100 hours if instrument flight time in actual or simulated conditions.

- (iv) For DCA to conduct skill tests in large or turbine-powered aeroplanes—
 - a) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and
 - b) 25 hours for each additional type of large helicopter for which designation is sought.
- (4) 250 hours as a flight instructor in helicopters, which include at least—
 - (i) 100 hours of flight instruction given in the helicopters; and
 - (ii) 50 hours of instrument flight instruction in helicopters.
- (c) Experience: CIRE—Powered-Lift Category. The examiner applicant shall have at least:
 - (1) A commercial pilot licence with a powered-lift category rating, any applicable class rating(s) and an Instrument –Powered-lift rating.
 - (2) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 1,000 hours in powered-lifts, of which 300 hours were accrued within the past year;
 - (ii) 100 hours at night in powered-lifts;
 - (iii) 100 hours if instrument flight time in actual or simulated conditions; and
 - (iv) For DCA to conduct skill tests in large or turbine-engine powered-lifts—
 - a) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought, and
 - b) 25 hours for each additional type of large aeroplane for which designation is sought.
 - (4) 500 hours as a flight instructor in powered-lifts, which include at least:
 - (i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts.

2.3.9.4 EXPERIENCE REQUIREMENTS FOR COMMERCIAL PILOT EXAMINERS (CE)

- (a) Experience: CE—Helicopter Category. The examiner applicant shall have at least:
 - (1) A commercial pilot licence with a helicopter category rating.
 - (2) A valid flight instructor certificate with an helicopter category rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 500 hours in helicopters, of which 100 hours were accrued within the past year;
 - (ii) For DCA to conduct skill tests in large helicopters—

- (iii) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought; and
 - (iv) 25 hours for each additional type of large helicopter for which designation is sought.
 - (4) 250 hours as a flight instructor in helicopters, which include at least:
 - (i) 50 hours of instrument flight instruction in helicopters.
- (b) Experience: CE—Airship Category. The applicant shall have at least:
 - (1) A CPL with airship category rating and any applicable class rating(s);
 - (2) A valid flight instructor licence with an airship category and any applicable class rating(s).
 - (3) 1,000 hours as PIC which includes at least:
 - (i) 500 hours in airships, of which 200 hours were accrued within the past year; and
 - (ii) 50 hours in airships at night.
 - (4) 100 hours as a flight instructor in airships.
- (c) Experience: CE—Balloon Category. The applicant shall have at least:
 - (1) A CPL balloon category and applicable class rating(s).
 - (2) A valid flight instructor licence with a balloon category and applicable class rating(s).
 - (3) 200 hours as PIC which includes at least:
 - (i) 100 hours in balloons; and
 - (ii) 20 hours in balloons in the class for which the designation is sought within the past year, including 10 flights in balloons of at least 30 minutes duration each.
 - (4) Held a commercial pilot licence with balloon category rating and applicable class rating for at least 1 year prior to designation.
 - (5) 50 hours as a flight instructor in balloons in the class for which the designation is sought, of which 10 hours were accrued within the past year.
- (d) Experience: CE—Glider Category. The applicant shall have at least:
 - (1) A CPL with glider category rating.
 - (2) A valid flight instructor licence with a glider category rating.
 - (3) 500 hours as PIC which includes at least:
 - (i) 250 hours in gliders; and
 - (ii) 20 hours in gliders within the past year that includes at least 50 flights in gliders.

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

2.3.9.5 EXPERIENCE REQUIREMENTS FOR AIRLINE TRANSPORT PILOT (ATPL) EXAMINERS (ATPE)

- (a) Experience: ATPE—Aeroplane Category. The examiner applicant shall have at least:
 - (1) An ATPL with an aeroplane category rating, appropriate class rating(s) and an Instrument—Aeroplane rating.
 - (2) A valid flight instructor certificate with an aeroplane category rating, the appropriate class rating(s) and an Instrument-Aeroplane rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 1,500 hours in aeroplanes, of which 300 hours were accrued within the past year.
 - (ii) 500 hours in the class of aeroplane for which the designation is sought.
 - (iii) 100 hours at night in aeroplanes.
 - (iv) 200 hours in complex aeroplanes.
 - (v) 100 hours of instrument flight time in actual or simulated conditions.
 - (vi) For DCA to conduct skill tests in large or turbine-powered aeroplanes:
 - a) 300 hours in large or turbine-powered aeroplanes, of which 50 hours are in the type of aeroplane for which designation is sought; and
 - b) 25 hours for each additional type of large aeroplane for which designation is sought.
 - (4) 500 hours as a flight instructor in aeroplanes which include at least:
 - (i) 100 hours of flight instruction given in the class of aeroplane applicable to the designation sought;
 - (ii) 250 hours of instrument flight instruction, of which 200 hours were given in aeroplanes; and
 - (iii) 150 hours flight instruction given for either a CPL(A) or ATPL(A) or an IR(A).
- (b) Experience: ATPE—Helicopter Category. The examiner applicant shall have at least:
 - (1) An ATPL with a helicopter category rating, appropriate class rating(s) and an Instrument –Helicopter rating.
 - (2) A valid flight instructor certificate with a helicopter category rating, the appropriate class rating(s) and an Instrument-Helicopter rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 1,200 hours in helicopters, of which 100 hours were accrued within the past year;

- (ii) 100 hours if instrument flight time in actual or simulated conditions; and
- (iii) For DCA to conduct skill tests in large helicopters –
 - a) 100 hours in large helicopters, of which 50 hours are in the type of helicopter for which designation is sought, and
 - b) 25 hours for each additional type of large helicopter for which designation is sought.
- (4) 250 hours as a flight instructor in helicopters, which include at least:
 - (i) 100 hours of flight instruction given in the helicopters; and
 - (ii) 50 hours of instrument flight instruction in helicopters.
- (c) Experience: ATPE—Powered-Lift Category. The examiner applicant shall have at least:
 - (1) An ATPL with a powered-lift category rating, any applicable class rating(s) and an Instrument –Powered-lift rating.
 - (2) A valid flight instructor certificate with a powered-lift category rating, any applicable class rating(s) and an Instrument-Powered-lift rating.
 - (3) 2,000 hours as PIC, which includes as least:
 - (i) 1,500 hours in powered-lifts, of which 300 hours were accrued within the past year;
 - (ii) 100 hours at night in powered-lifts;
 - (iii) 100 hours if instrument flight time in actual or simulated conditions; and
 - (iv) For DCA to conduct skill tests in large or turbine-engine powered-lifts —
 - a) 300 hours in large or turbine-engine powered-lifts, of which 50 hours are in the type of powered-lift for which designation is sought; and
 - b) 25 hours for each additional type of large aeroplane for which designation is sought.
 - (4) 500 hours as a flight instructor in powered-lifts, which include at least:
 - (i) 250 hours of instrument flight instruction, of which 200 hours were given in powered-lifts; and
 - (ii) 150 hours flight instruction given for either a CPL- powered-lift, ATPL – powered-lift or IR-powered-lift.

2.3.9.6 EXPERIENCE REQUIREMENTS FOR FLIGHT INSTRUCTOR EXAMINER (FIE)

- a) The examiner applicant shall have at least:
 - (1) The requirements for a commercial examiner or a commercial instrument rating examiner designation, as appropriate for the category and class of aircraft pertinent to the FIE designation sought; and

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

2.4 FLIGHT ENGINEER LICENCE, RATINGS, INSTRUCTORS AND DESIGNATED FLIGHT ENGINEER EXAMINERS

2.4.1 APPLICABILITY

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

2.4.2 GENERAL RULE CONCERNING FLIGHT ENGINEER LICENCES AND RATINGS

- (a) A person shall not act as a flight engineer of an aircraft registered in Lao PDR unless a valid licence or a validation certificate is held showing compliance with the specifications of this Part 2 and appropriate to the duties to be performed by that person.
- (b) For the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flights, special authorisation may be provided in writing to the licence holder by the DCA in place of issuing the class or type rating in accordance with this Part. This authorisation will be limited in validity to the time needed to complete the specific flight.
- (c) An applicant shall, before being issued with a flight engineer licence and class rating, meet such requirements in respect of age, knowledge, experience, skill, medical fitness and language proficiency as are specified for that licence or rating.
- (d) An applicant for renewal or re-issue of an FE licence and class rating shall meet the requirements as are specified for the licence and rating in this Part.

2.4.3 AUTHORITY TO ACT AS A FLIGHT CREWMEMBER.

- (a) A person shall not act as a flight crewmember of an aircraft registered in Lao PDR unless a valid licence or validation certificate is held showing compliance with the specifications of Part 2 and appropriate to the duties to be performed by that person.
- (b) No person may act as a FE of an aircraft unless that person holds the appropriate FE licence and class rating for the aircraft to be flown.

2.4.4 FLIGHT ENGINEER LICENCE, CLASS RATING, AND EXPERIENCE REQUIREMENTS

2.4.4.1 FLIGHT ENGINEER LICENCE

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

- (b) Medical. The applicant for a flight engineer licence and class rating shall have a Class 2 medical certificate.
- (c) Knowledge. The applicant for a flight engineer licence and class rating shall receive and log ground training from an authorised instructor on the following subjects:
 - (1) Air law:
 - (i) Rules and regulations relevant to the holder of a flight engineer licence; rules and regulations governing the operations of civil aircraft pertinent to the duties of a flight engineer.
 - (2) Aircraft general knowledge:
 - (i) Basic principles of 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; and
 - (ii) Use and practical application of performance data including procedures for cruise control
 - (4) Human performance:
 - (i) Human performance and CRM relevant to the flight engineer, including principles of threat and error management.
 - (5) Operational procedures:

- (i) Principles of maintenance procedures for the maintenance of airworthiness, defect reporting, pre-flight inspections, precautionary procedures for fuelling and use of external power; installed equipment and cabin systems.
 - (ii) Normal, abnormal and emergency procedures.
 - (iii) Operational procedures for carriage of freight and dangerous goods.
- (6) Principles of flight:
- (i) Fundamentals of aerodynamics.
- (7) Radiotelephony:
- (i) communication procedures and phraseology.
- (8) Navigation:
- (i) Fundamentals of navigation.
 - (ii) Principles and operation of self-contained systems.
- (9) Meteorology:
- (i) Operational aspects of meteorology.
- (d) Knowledge testing. The applicant for a FE shall:
- (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test.
- (e) Experience.
- (1) The applicant for a flight engineer licence and class rating shall have completed under the supervision of a person accepted by the DCA for that purpose, not less than 100 hours of flight time in the performance of the duties of a flight engineer, of which 50 hours may have been completed in a flight simulation training device approved by the DCAL. This experience shall have been obtained:
 - (i) On an aeroplane for which a flight engineer is required; and
 - (ii) On an aeroplane that has at least three engines that are rated at least 800 horsepower each or the equivalent in turbine engine powered aircraft.
 - (2) The holder of a CPL/IR(A) or ATPL(A) may be credited with 30 hours towards the 100 hours of flight time.
 - (3) The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the DCA for that purpose, in at least the following areas:
 - (i) Normal procedures:

- a) Pre-flight inspections.
- b) Fuelling procedures, fuel management.
- c) Inspection of maintenance documents.
- d) Normal flight deck procedures during all phases of flight.
- e) Crew coordination and procedures in case of crew incapacitation.
- f) Defect reporting.
- (ii) Abnormal and alternate (standby) procedures:
 - a) Recognition of abnormal functioning of aircraft systems
 - b) Use of abnormal and alternate (standby) procedures.
- (iii) Emergency procedures:
 - a) Recognition of emergency conditions.
 - b) Use of appropriate emergency procedures.
- (f) Skill. The applicant for a flight engineer licence and class rating shall:
 - (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test; and
 - (2) Have demonstrated by passing the required skill test, the ability to perform as flight engineer of an aircraft, the duties and procedures described i(c) above with a degree of competency appropriate to the privileges granted to the holder of a flight engineer licence, and to—
 - (i) 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 never in doubt; and
 - (vi) Communicate effectively with the other flight crewmembers.
 - (3) Requirements for the skill test are given at IS 2.4.4.4.
 - (4) The use of a flight simulation training device for training or testing any of the required manoeuvres shall be appropriate to the task and approved by the DCAL.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight engineer licence and class rating shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer licence and class rating is 5 years.

- (i) **Renewal.** The Flight Engineer Licence may be renewed by presenting to the DCA evidence of successfully passing a proficiency check on the areas of operation listed in IS: 2.4.4.4.
- (j) **Reissue.** If the Flight Engineer Licence has expired, the applicant shall have received refresher training acceptable to the DCAL.

2.4.4.2 FLIGHT ENGINEER CLASS RATINGS

- (a) The DCA may issue the following class ratings to be placed on a flight engineer's licence when the applicant completes the requirements in this Part for the rating sought:
 - (1) Reciprocating engine powered;
 - (2) Turbo propeller powered; and
 - (3) Turbojet powered.
- (b) **Additional ratings.** To be eligible for an additional class rating, an applicant shall:
 - (1) Successfully complete an approved flight engineer training course that is appropriate to the additional class rating sought;
 - (2) Pass the knowledge test that is appropriate to the class for which an additional rating is sought; and
 - (3) Pass the skill test that is appropriate to the class for which an additional rating is sought.

2.4.4.3 RECENT EXPERIENCE REQUIREMENTS

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

2.4.4.4 FLIGHT ENGINEER: SKILL TEST AND PROFICIENCY CHECK

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

2.4.5 INSTRUCTORS FOR FLIGHT ENGINEER LICENCES

2.4.5.1 REQUIREMENTS FOR FLIGHT ENGINEER INSTRUCTOR LICENCE AND CLASS RATING

- (a) **Age.** An applicant for a flight engineer instructor licence and class rating shall be at least 18 years of age.
- (b) **Medical.** An applicant for a flight engineer instructor licence shall hold a Class 2 medical certificate.

- (c) Knowledge.
 - (1) An applicant for a flight engineer instructor licence shall have met the instructor requirements in 2.2.6 of this part; and
 - (2) Any additional requirements as may be specified by the DCA.
- (d) Experience. The applicant for a flight engineer instructor licence and class rating shall hold at least a current and valid flight engineer licence and class rating for which the instructor licence is sought and have a minimum of 1,500 hours flight time as a flight engineer.
- (e) Flight Instruction. Received flight instruction from an authorised instructor in the areas of:
 - (1) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and
 - (2) Have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.
- (f) Privileges. The privileges of a flight engineer instructor licence and class rating are to give flight and ground instruction to flight engineer licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (g) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight engineer instructor licence is 2 years.
- (h) Renewal. A flight engineer instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the DCA evidence that he/she has within the past 12 months preceding the expiry date—
 - (1) Received refresher training acceptable to the DCA; or
 - (2) Conducted at least one of the following parts of an approved course for a flight engineer licence or class rating:
 - (3) One simulator session of at least 3 hours; or
 - (4) One flight exercise of at least 1 hour including at least 2 take-offs and landings.
- (i) Reissue. If the flight engineer instructor licence has expired, the applicant shall:
 - (1) Have received refresher training acceptable to the DCA; and
 - (2) Pass a skill test on the areas of operation listed in IS 2.4.4.4

2.4.5.2 INSTRUCTOR AUTHORISATION FOR FLIGHT SIMULATION TRAINING

- (a) Current or former holders of flight engineer licences, having instructional experience may apply for an authorisation to provide flight instruction in a flight simulation training device, provide the applicant has at least 1 year experience as instructor in flight simulation training devices.
 - (1) Skill. The applicant shall have demonstrated in a skill test, in the category and in the class or type of aircraft for which instructor authorisation privileges are

sought, the ability to instruct in those areas in which ground instruction is to be given.

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

2.4.6 DESIGNATED FLIGHT ENGINEER EXAMINERS

2.4.6.1 REQUIREMENTS

- (a) Age. An applicant for a designated flight engineer examiner shall be at least 21 years of age.
- (b) Medical. An applicant for a designated flight engineer examiner shall hold a Class 2 medical certificate.
- (c) Eligibility. An applicant for a designated flight engineer examiner shall:
 - (1) Hold at least the flight engineer licence and class rating for which examining authority is sought.
 - (2) Have a minimum of 1,500 hours flight time as a flight engineer.
 - (3) Have held a flight engineer instructor licence or company flight engineer check airman authorisation for preferably at least 1 year.
 - (4) Have a reputation for integrity and dependability in the industry and the community.
 - (5) Have a good record as a flight engineer in regard to accidents, incidents, and violations.
 - (6) Have flight engineer licence/class ratings and flight engineer instructor licence or check airman authorisation that have never been revoked for falsification or forgery.
- (d) Knowledge. The applicant for a designated flight engineer examiner shall pass a pre-designation knowledge test in the areas appropriate to the licence/class rating for which designation is sought.
- (e) Skill test. The applicant for a designated flight engineer examiner shall pass a skill test on the items in IS 2.4.6.2 conducted by an inspector of the DCA who holds a current and valid flight engineer licence with appropriate class rating.

- (f) Maintaining currency. After designation, a designated flight engineer examiner shall maintain currency by:
 - (1) Attending initial and recurrent training provided by the DCA; and
 - (2) Maintain a current and valid:
 - (i) Flight engineer licence and applicable class rating; and
 - (ii) Class 1 medical certificate.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the flight engineer examiner's designation are to conduct skill tests and proficiency checks for a flight engineer licence and applicable class rating as listed on the designated flight examiner's certificate of designation and identification card.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the designated flight engineer examiner's designation is 3 years.
- (i) Renewal.
 - (1) Renewal will be at the discretion of the DCA.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS 2.4.6.2.
- (j) Additional designations. When the DCA deems it necessary for a designated flight engineer examiner to receive additional class rating designations, the designated flight engineer examiner shall meet all the requirements in this Part for the designation.

2.4.6.2 SKILL TEST FOR DESIGNATED FLIGHT ENGINEER EXAMINERS

The requirements for the skill test for designated flight engineer examiners is included in IS 2.4.6.2

2.5 FLIGHT NAVIGATOR LICENCE,

2.5.1 FLIGHT NAVIGATOR LICENSE, INSTRUCTORS AND DESIGNATED EXAMINERS

2.5.1.1 APPLICABILITY

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

2.5.2 GENERAL RULE CONCERNING FLIGHT NAVIGATOR LICENCES

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

2.5.3 AUTHORITY TO ACT AS A FLIGHT CREWMEMBER

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

2.5.4 FLIGHT NAVIGATOR LICENCE

2.5.4.1 GENERAL REQUIREMENTS

- (a) Age. The applicant for a flight navigator licence shall be not less than 18 years of age.
- (b) Medical: The applicant for a flight navigator licence shall have a Class 2 medical certificate.
- (c) Knowledge. The applicant for a flight navigator licence shall receive and log ground training from an authorised instructor on the following subjects to the level of knowledge appropriate for the privileges of a flight navigator:
 - (1) Air Law:
 - (i) Rules and regulations relevant to the holder of a flight navigator licence; appropriate air traffic services practices and procedures.
 - (2) Flight performance and planning:
 - (i) Effects of loading and mass distribution on aircraft performance;
 - (ii) Use of take-off, landing and other performance data including procedures for cruise control; and
 - (iii) Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures.
 - (3) Human performance:
 - (i) Human performance relevant to the flight navigator, including principles of threat and error management.

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

- (4) Meteorology:
 - (i) Interpretation and practical application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry; and
 - (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems;

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

- (5) Navigation.
 - (i) Dead-reckoning, pressure-pattern and celestial navigation procedures; the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
 - (ii) Use, limitation and serviceability of avionics and instruments necessary for the navigation of the aircraft;
 - (iii) Use, accuracy and reliability of navigation systems used in departure, en-route and approach phases of flight; identification of radio navigation aids;
 - (iv) Principles, characteristics and use of self-contained and external-referenced navigation systems; operation of airborne equipment;
 - (v) The celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights; calibration of sextants; the completion of navigation documentation; and
 - (vi) Definitions, units and formulae used in air navigation.
- (6) Operational procedures:
 - (i) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach.
- (7) Principles of flight: principles of flight.
- (8) Radiotelephony: radiotelephony procedures and phraseology.
- (d) Knowledge testing.
 - (1) An applicant for a flight navigator licence shall have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects.
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test on the subjects listed in item (c).
- (e) Experience. The applicant for a flight navigator licence:
 - (1) Shall present satisfactory evidence, such as a logbook, of the following experience:
 - (i) The applicant shall have completed in the performance of the duties of a flight navigator, not less than 200 hours of flight time acceptable to the DCA, in aircraft engaged in cross-country flights, using celestial and radio navigation and dead reckoning, including not less than 30 hours by night; and
 - (ii) The applicant shall produce evidence of having satisfactorily determined the aircraft's position in flight, and used that information to navigate the aircraft, as follows:

- a) By night – not less than 25 times by celestial observations; and
 - b) By day – not less than 25 times by celestial observations in conjunction with self-contained or external-referenced navigation systems.
- (2) May be credited with 30 hours of flight time as the holder of a pilot licence towards the 200 hours of flight time required in paragraph (e)(1).
- (f) Skill. The applicant shall have demonstrated by passing the required skill test on the items in IS 2.5.4.2 the ability to perform as flight navigator of an aircraft with a degree of competency appropriate to the privileges granted to the holder of a flight navigator licence, and to:
 - (1) Recognise and manage threats and errors;
 - (2) Exercise good judgement and airmanship;
 - (3) Apply aeronautical knowledge;
 - (4) Perform all duties as part of an integrated crew; and
 - (5) Communicate effectively with the other flight crewmembers.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight navigator licence shall be to act as flight navigator of any aircraft.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years.
- (i) Recent experience requirements. No person holding a flight navigator licence shall exercise the privileges of the flight navigator licence unless he/she has completed within the past 6 calendar months –
 - a) At least 30 hours of flight time as a flight navigator, or
 - b) Completed a proficiency check.
- (j) Renewal of the flight navigator licence. For renewal of the licence, the applicant shall pass a proficiency check on the areas of operation in IS 2.5.4.2
- (k) Reissue. If the Flight Navigator Licence has expired, the applicant shall have received refresher training acceptable to the DCA.

2.5.4.2 FLIGHT NAVIGATOR LICENCE: SKILL TEST AND PROFICIENCY CHECK

- (a) The areas of operation for the skill test and proficiency check, are included in IS 2.5.4.2.

2.5.5 INSTRUCTOR REQUIREMENTS FOR FLIGHT NAVIGATORS

2.5.5.1 REQUIREMENTS FOR FLIGHT NAVIGATOR INSTRUCTOR LICENCE

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

- (b) Medical. An applicant for a flight navigator instructor licence shall hold a Class 2 medical certificate.
- (c) Knowledge.
 - (1) An applicant for a flight navigator instructor licence shall have met the instructor knowledge requirements in 2.2.6 of this part; and
 - (2) Meet any additional requirements as may be specified by the DCA.
- (d) Experience. The applicant for a flight navigator instructor licence shall hold at least a current and valid flight navigator licence for which the instructor licence is sought and have a minimum of 1,500 hours flight time as a flight navigator.
- (e) Flight Instruction. Received flight instruction from an authorised instructor in the areas of:
 - (1) Flight instructional techniques including demonstration, student performance, student practices, recognition and correction of common student errors; and
 - (2) Have practised instructional techniques in those procedures in which it is intended to provide flight instruction.
- (f) Privileges. The privileges of a flight navigator instructor licence are to give flight and ground instruction to flight navigator licence applicants and to endorse those applicants for a knowledge or skill test as applicable.
- (g) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the flight navigator instructor licence is 2 years.
- (h) Renewal. A flight navigator instructor licence that has not expired may be renewed for an additional 24 calendar months if the holder presents to the DCA evidence that he/she has within the past 12 months preceding the expiry date —
 - (1) Conducted at least two flight exercises in an approved course for a flight navigator licence or class rating in which the aircraft position was determined by use of celestial, ground based and electronic navigational systems; or
 - (2) Received refresher training acceptable to the DCA.
- (i) Reissue. If the flight navigation instructor licence has expired, the applicant shall:
 - (1) Have received refresher training acceptable to the DCA; and
 - (2) Passed a skill test on the areas of operation listed in IS: 2.5.4.2.

2.5.6 DESIGNATED FLIGHT NAVIGATOR EXAMINERS

2.5.6.1 REQUIREMENTS

- (a) Age: An applicant for a designated flight navigator examiner shall be at least 21 years of age.
- (b) Medical. An applicant for a designated flight navigator examiner shall hold a Class 1 medical certificate.
- (c) Eligibility. An applicant for a designated flight navigator examiner shall:
 - (1) Hold the flight navigator licence for which examining authority is sought;

- (2) Have a reputation for integrity and dependability in the industry and the community;
 - (3) Have a good record as a flight navigator in regard to accidents, incidents, and violations; and
 - (4) Have a flight navigator licence that has never been revoked for falsification or forgery.
- (d) Knowledge. The applicant for a designated flight navigator examiner shall pass a pre-designation knowledge test in the areas appropriate to the licence rating for which designation is sought.
- (e) Skill test. The applicant for a designated flight navigator examiner shall pass a skill test on the areas of operation listed in IS 2.5.6.2 conducted by an inspector of the DCA who holds a current and valid flight navigator licence.
- (f) Maintaining currency. After designation, a designated flight navigator examiner shall maintain currency by:
- (1) Attending initial and recurrent training provided by the DCA; and
 - (2) Maintain a current and valid:
 - (i) Flight navigator licence; and
 - (ii) Class 2 medical certificate.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the flight navigator examiner's designation are to conduct skill tests and proficiency checks for a flight navigator licence as listed on the designated flight navigator examiner's certificate of designation and identification card.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the designated flight navigator examiner's designation is 3 years.
- (i) Renewal.
- (1) Renewal will be at the discretion of the DCA.
 - (2) An applicant for renewal shall pass the appropriate skill test on the areas of operation listed in IS 2.5.6.2.

2.5.6.2 SKILL TEST FOR DESIGNATED FLIGHT NAVIGATOR EXAMINER

- (a) The requirements for a skill test for designated flight navigator examiners is included in IS 2.5.6.2.

2.6 AVIATION MAINTENANCE LICENSING, INSTRUCTORS AND DESIGNATED EXAMINERS

2.6.1 GENERAL

2.6.1.1 APPLICABILITY

- (a) Subpart 2.7 prescribes the requirements for issuing the following licenses and associated ratings and/or authorisations for:

- (1) Aviation Maintenance Technicians
- (2) Inspection Authorisations.
- (3) Aviation Repairman.

2.6.2 AVIATION MAINTENANCE TECHNICIANS (AMT)

2.6.2.1 APPLICABILITY

- (a) This Subpart prescribes the requirements for issuance of an AMT license and associated ratings.

2.6.2.2 ELIGIBILITY REQUIREMENTS: GENERAL

- (a) An applicant for an AMT license and any associated rating shall—
 - (1) Be at least 18 years of age.
 - (2) Demonstrate the ability to read, write, speak, and understand the Lao language, and English if required by the DCA, by reading and explaining appropriate maintenance publications and by writing defect and repair statements.
 - (3) Comply with the knowledge, experience, and competency requirements prescribed for the license and rating sought.
 - (4) Pass all of the prescribed tests for the license and rating sought, within a period of 24 months.
- (b) A licensed AMT who applies for an additional rating must meet the requirements of 2.6.2.6 and, within a period of 24 months, pass the tests prescribed by 2.6.2.5 and 2.6.2.7 for the additional rating sought.

2.6.2.3 RATINGS

- (a) The following ratings are issued under this subpart:
 - (1) Airframe.
 - (2) Powerplant.
 - (3) Avionics.
 - (4) Other ratings as may be determined by the DCA.

2.6.2.4 KNOWLEDGE REQUIREMENTS FOR THE AMT LICENSE

- (a) The applicant for an aviation maintenance technician/engineer/mechanic licence shall have pass a general knowledge test covering at least the following areas:
 - (1) Air law and airworthiness requirements. Rules and regulations relevant to an aircraft maintenance technician licence holder including —
 - (i) Applicable airworthiness requirements governing certification and continuing airworthiness of aircraft ; and
 - (ii) Approved aircraft maintenance organization procedures.
 - (2) Natural science and aircraft general knowledge—

- (i) Basic mathematics;
 - (ii) Units of measurement; and
 - (iii) Fundamental principles and theory of physics and chemistry applicable to aircraft maintenance.
- (3) Aircraft engineering. Characteristics and applications of the materials of aircraft construction including—
- (i) Principles of construction and functioning of aircraft structures,
 - (ii) Fastening techniques;
 - (iii) Powerplants and their associated systems;
 - (iv) Mechanical, fluid, electrical and electronic power sources;
 - (v) Aircraft instrument and display systems;
 - (vi) Aircraft control systems; and
 - (vii) Airborne navigation and communication systems.
- (4) Aircraft maintenance. Tasks required to ensure the continuing airworthiness of an aircraft including—
- (i) Methods and procedures for the overhaul, repair, inspection, replacement, modification or defect rectification of aircraft structures, components and systems in accordance with the methods prescribed in the relevant Maintenance Manuals and the applicable requirements of airworthiness.
- (5) Human performance:
- (i) Human performance and limitations relevant to the duties of an aircraft maintenance licence holder.

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

2.6.2.5 KNOWLEDGE REQUIREMENTS FOR THE RATINGS

- (a) The applicant for an airframe rating shall pass a knowledge test covering at least the following areas:
- (1) Wood structures.
 - (2) Aircraft covering.
 - (3) Aircraft finishes.
 - (4) Sheet metal and non-metallic structures.
 - (5) Welding.
 - (6) Assembly and rigging.
 - (7) Airframe inspection.

- (8) Fuel systems.
 - (9) Aircraft landing gear systems.
 - (10) Hydraulic and pneumatic power systems.
 - (11) Cabin atmosphere control systems.
 - (12) Aircraft instrument systems.
 - (13) Communication and navigation systems.
 - (14) Aircraft fuel systems.
 - (15) Aircraft electrical systems.
 - (16) Position and warning systems.
 - (17) Ice and rain control systems.
 - (18) Fire protection systems.
- (b) The applicant for a powerplant rating shall pass a knowledge test covering at least the following areas:
- (1) Reciprocating systems.
 - (2) Turbine engines.
 - (3) Engine inspection.
 - (4) Engine instrument systems.
 - (5) Engine fire protection systems.
 - (6) Engine electrical systems.
 - (7) Lubrication systems.
 - (8) Ignition and starting systems.
 - (9) Fuel metering.
 - (10) Engine fuel systems.
 - (11) Induction and engine airflow systems.
 - (12) Engine cooling systems.
 - (13) Engine exhaust and reverser systems.
 - (14) Propellers.
 - (15) Auxiliary power units.
- (c) The applicant for an avionics rating shall pass a knowledge test covering at least the following areas:
- (1) Aircraft electrical systems;
 - (2) Aircraft instrument systems;

- (3) Automatic flight control systems;
 - (4) Aircraft radio and radio navigation systems,
 - (5) Aircraft navigation systems; and
 - (6) Aircraft systems/components – avionics.
- (d) The applicant shall pass each section of the test before applying for the skill tests prescribed by 2.6.2.7.

2.6.2.6 EXPERIENCE REQUIREMENTS

- (a) An applicant for an AMT license and associated ratings may qualify by either practical experience or through completion of approved training in an ATO.
- (b) Practical experience. Each applicant for an AMT license and rating(s) relying on practical experience shall provide documentary evidence, acceptable to the DCA, of the following experience in the inspection, servicing and maintenance of aircraft or its components—
 - (1) Airframe rating – 30 months.
 - (2) Powerplant rating – 30 months.
 - (3) Airframe and Powerplant ratings – 48 months.
 - (4) Avionics rating – 36 months.
 - (5) Airframe, Powerplant and Avionics ratings – 60 months.
- (c) Approved Training. Each applicant for an AMT license relying on completion of training in an Approved Training Organization shall provide documentary evidence, acceptable to the DCA, of the following training:
 - (1) Airframe rating – 24 months.
 - (2) Powerplant rating – 24 months.
 - (3) Airframe and Powerplant ratings – 30 months.
 - (4) Avionics rating— 18 months in an ATO and 12 months practical work experience.
 - (5) Airframe, Powerplant and Avionics ratings – 42 months in an ATO and 12 months practical work experience.

2.6.2.7 SKILL REQUIREMENTS

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

2.6.2.8 PRIVILEGES AND LIMITATIONS

- (a) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AMT may perform or supervise the maintenance, preventive maintenance, or modification of, or after inspection, approve for return to service, any aircraft, airframe, aircraft engine,

propeller, appliance, component, or part thereof, for which he or she is rated, provided the licensed AMT has—

- (1) Satisfactorily performed the work at an earlier date;
 - (2) Demonstrated the ability to perform the work to the satisfaction of the DCA;
 - (3) Received training acceptable to the DCAL on the tasks to be performed; or
 - (4) Performed the work while working under the direct supervision of a licensed AMT or a licensed aviation repairman who is appropriately rated and has—
 - (i) Had previous experience in the specific operation concerned; or
 - (ii) Received training acceptable to the DCAL on the task to be performed.
- (b) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AMT with an airframe rating may after he/she has performed the 100-hour inspection required by Part 8 of this chapter on an airframe, or any related part or appliance, and approve and return it to service.
- (c) Except as specified in paragraphs (e) and (f) of this subsection, a licensed AMT with a powerplant rating may perform the 100-hour inspection required by Part 8 of this chapter on a powerplant or propeller or any related part or appliance, and approve and return it to service.
- (d) Except as specified in paragraph (e) of the subsection, a licensed AMT with an Avionics rating may inspect, repair, maintain, function test and return to service aircraft avionics systems and components.
- (e) An AMT with an airframe or powerplant or avionics rating may not—
- (1) Supervise the maintenance, preventive maintenance, or modification of, or approve and return to service, any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof, for which he/she is rated unless he/she has satisfactorily performed the work concerned at an earlier date.
 - (2) Exercise the privileges of the license unless the licensed AMT understands the current instructions for continued airworthiness and the maintenance instructions for the specific operation concerned.
 - (3) Perform a major repair or major modification of a propeller.
- (f) An AMT with an Airframe or Powerplant rating may not:
- (1) Perform or supervise (unless under the direct supervision and control of an AOC holder that is authorised to perform maintenance, preventative maintenance, or modifications under an equivalent system in accordance with 9.4.1.3(a)) any repair or alteration of instruments.
 - (2) Approve for return to service—
 - (i) Any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof after completion of a major alteration or major repair; or
 - (ii) Any instrument after completion of any repair or alteration.

2.6.2.9 DURATION OF AMT LICENCE

- (a) Validity. The duration of the AMT licence is five years.

- (b) **Renewal.** An AMT licence that has not expired may be renewed for an additional 5 years if the holder presents evidence to the DCA that he/she has within the past 24 months has exercised the privileges of the licence.
- (c) **Reissue.** If the AMT licence has expired, the applicant shall have received refresher training acceptable to the DCA.

2.6.2.10 RECENT EXPERIENCE REQUIREMENTS

- (a) A licensed AMT may not exercise the privileges of his/her license or rating unless, within the preceding 24 months—
 - (1) The DCA has found that he/she is able to do that work; or
 - (2) For at least 6 months within the preceding 24 months—
 - (i) Served as an AMT under his/her license and rating;
 - (ii) Technically supervised other AMTs;
 - (iii) Provided aviation maintenance instruction or served as the direct supervisor of persons providing aviation maintenance instruction for an AMT course or program acceptable to the DCA;
 - (iv) Supervised the maintenance, preventive maintenance, or alteration of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof; or
 - (v) Been engaged in any combination of paragraphs (a)(1)(i) through (a)(1)(iv) of this subsection.

2.6.2.11 DISPLAY OF LICENSE

Each person who holds an AMT license shall keep it within the immediate area where he/she normally exercises the privileges of the license and shall present it for inspection upon the request of the DCA or an authorised representative of the Director General, or any Federal, State, or local law enforcement officer.

2.6.3 INSPECTION AUTHORISATIONS

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

2.6.3.1 APPLICABILITY

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

2.6.3.2 ELIGIBILITY REQUIREMENTS: GENERAL

- (a) An applicant for an Inspection Authorisation shall:
 - (1) Hold a currently effective and valid AMT license with both an airframe and powerplant rating, each of which is currently effective and has been in effect for a total of at least 5 years.

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

2.6.3.3 KNOWLEDGE REQUIREMENTS FOR THE IA

- (a) The applicant for the IA shall pass a knowledge test covering at least the following areas:
- (1) Certification procedures for products and parts.
 - (2) Airworthiness standards – aircraft.
 - (3) Airworthiness standards – rotorcraft.
 - (4) Airworthiness directives.
 - (5) Maintenance, preventive maintenance, rebuilding, and alteration.
 - (6) Identification and registration marking.
 - (7) Certification – Maintenance licensing.
 - (8) General operating and flight rules.
 - (9) Aircraft weight and balance.

2.6.3.4 INSPECTION AUTHORISATION: DURATION

- (a) Each inspection authorisation expires on June 31 of each year.
- (b) An inspection authorisation ceases to be effective whenever any of the following occurs:
- (1) The authorisation is surrendered, suspended, or revoked.
 - (2) The holder no longer has a fixed base of operation.
 - (3) The holder no longer has the equipment, facilities, and inspection data required by 2.6.3.2(a)(3) and (4) for issuance of his/her authorisation.
- (c) The holder of an inspection authorisation that is suspended or revoked shall return it to the DCA.

2.6.3.5 RENEWAL OF AUTHORISATION

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

2.6.3.6 PRIVILEGES AND LIMITATIONS

- (a) When exercising the privileges of an IA, the holder shall keep it available for inspection by the aircraft owner and the AMT submitting the aircraft, repair, or alteration for approval (if any), and shall present it at the request of the DCA or an authorised representative of the Director General, or at the request of any Federal, State, or local law enforcement officer.
- (b) The holder of an Inspection Authorisation (IA) with a current and valid AMT license may:
 - (1) Inspect and approve for return to service any aircraft, airframe, aircraft engine, propeller appliance, component, or part thereof on any aircraft with a 5,700 kg maximum take-off weight or less, after completion of a major repair or major alteration performed in accordance with Part 5 and done in accordance with technical data approved by the DCA.
 - (2) Perform an annual inspection, or perform or supervise a progressive inspection, according to Part 5, on any aircraft with a 5,700 kg maximum take-off weight or less, except those aircraft on a continuous maintenance program, and approve the aircraft for return to service.
- (c) The holder of an IA with a current and valid AMT license may not:
 - (1) Exercise the privileges of the authorisation unless he or she holds a current and valid AMT license with airframe and powerplant ratings.
 - (2) Inspect and approve for return to service any aircraft over 5,700 kg maximum take-off weight.

- (3) Inspect and approve any airframe, aircraft engine, propeller, appliance, component, or part thereof which is subject to a maintenance program under Part 9.
- (4) Inspect and approve for return to service any aircraft maintained in accordance with a continuous maintenance program approved under Part 9.
- (5) Exercise any privilege of an Inspection Authorisation whenever that person no longer—
 - (i) Has a fixed base of operation; and
 - (ii) Has access to the equipment, facilities, or inspection data required by 2.6.3.2(a)(3) and (4).
- (6) Exercise the privileges of the authorisation until he or she has notified the DCA in writing of any changes in the fixed base of operation and equipment, facilities or inspection data and received approval in writing from the DCA for the proposed change.

2.6.4 AVIATION REPAIRMAN

Note: This license is not specified in ICAO Annex 1. Regulations contained in the subpart are based on shall Part 65 and are present here for States that wish to maintain closer supervision on individuals performing work in an Approved Maintenance Organisation.

2.6.4.1 APPLICABILITY

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

2.6.4.2 AVIATION REPAIRMAN LICENSES: ELIGIBILITY

- (a) An applicant for an aviation repair specialist license and shall—
 - (1) Be at least 18 years of age.
 - (2) Demonstrate the ability to read, write, speak, and understand the Lao language, and English if required by the DCA, by reading and explaining appropriate maintenance publications and by writing defect and repair statements.
 - (3) Demonstrate a level of knowledge relevant to the privileges to be granted and appropriate to the duties to be performed.
 - (4) Be specially qualified to perform maintenance on aircraft or components thereof, appropriate to the job for which he/she was employed.
 - (5) Be employed for a specific job requiring those special qualifications by a approved maintenance organisation certificated under Part 6 or a air operator certificated under Part 9 that is required by its operating certificate or approved specific operating provisions to provide maintenance, preventive maintenance, or modifications to aircraft approved with a continuous maintenance program according to its maintenance control manual.
 - (6) Be recommended for certification by his employer, to the satisfaction of the DCA, as able to satisfactorily maintain aircraft or components, appropriate to the job for which he is employed.
 - (7) Have either of the following:

- (i) At least 24 months of practical experience in the procedures, practices, inspection methods, materials, tools, machine tools, and equipment generally used in the maintenance duties of the specific job for which the person is to be employed and certificated; or
- (ii) Completed formal training that is acceptable to the DCA and is specifically designed to qualify the applicant for the job on which the applicant is to be employed.

2.6.4.3 RATINGS

- (a) The following ratings may be issued under this subpart:
 - (1) Propeller.
 - (2) Computer.
 - (3) Instrument.
 - (4) Accessory.
 - (5) Components.
 - (6) Welding.
 - (7) Nondestructive Testing (NDT).
 - (8) Other as may be designated by the DCA.
- (b) At no instance shall an aviation repairman license be issued with an airframe and/or powerplant or avionics rating to circumvent the process of obtaining an AMT license.
- (c) Ratings for an applicant employed by an approved maintenance organisation shall coincide with the rating(s) issued at the approved maintenance organisation limited to the specific job for which the person is employed to perform, supervise, or approve for return to service.
- (d) At no instance shall an aviation repairman license be issued a rating in which the AMO has not been issued.
- (e) Ratings for an applicant employed by an air operator shall coincide with the approved specific operating provisions and the approved maintenance control manual that identifies the air operator's authorisations limited to the specific job for which the person is employed to perform, supervise, or approve for return to service.

2.6.4.4 AVIATION REPAIRMAN LICENSES: PRIVILEGES AND LIMITATIONS

- (a) An aviation repairman specialist may perform or supervise the maintenance, preventive maintenance, or alteration of aircraft, airframes, aircraft engines, propellers, appliances, components, and parts appropriate to the designated speciality area for which the aviation repair specialist is licensed and rated, but only in connection with employment by an AMO approved under Part 6 or an AOC holder that is authorised to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with 9.4.1.3(a).
- (b) An aviation repair specialist may not perform or supervise duties unless the aviation repair specialist understands the current instructions of the employing certificate holder and the instructions for continued airworthiness, which relate to the specific operations concerned.

- (c) An aviation repair specialist license must be surrendered to the DCA at the time the license holder leaves the employ of the AMO or ACO.

2.6.4.5 DISPLAY OF LICENSE

Each person who holds a aviation repairman license shall keep it within the immediate area where he/she normally exercises the privileges of the license and shall present it for inspection upon the request of the DCA or an authorised representative of the Director General, or any Federal, State, or local law enforcement officer.

2.6.5 INSTRUCTORS FOR AVIATION MECHANIC LICENCES

2.6.5.1 REQUIREMENTS FOR AVIATION MECHANIC INSTRUCTOR LICENCE AND RATING

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

2.6.6 DESIGNATED AVIATION MECHANIC TECHNICIAN EXAMINERS

2.6.6.1 GENERAL REQUIREMENTS

- (a) Age. An applicant for a designated mechanic examiner shall be at least 23 years of age.
- (b) Medical. There are no medical requirements for a mechanic examiner.
- (c) General Eligibility.

- (1) Show evidence of a high level of aeronautical knowledge in the subject areas for AMT certification in both reciprocating and turbine engine aircraft.
- (2) Have held a valid AMT with the ratings for which a designation is to issue for five years.
- (3) Have been actively exercising the privileges of that AMT certificate in the previous three years.
- (4) Have a good record as an AMT and a person engaged in the industry and community with a reputation for honesty and dependability.
- (5) The applicant must have for test conducted using the skill test standard (STS) have a fixed base of operation adequately equipped to test at least 25 percent of all level 1, level 2, level 3 skill elements listed in Objective 3 of each subject area in the STS for the General, Airframe and Powerplant. Additionally, be equipped to perform all of the core competencies elements identified in Objective 2 of each subject area in the STS for General, Airframe and Powerplant ratings.
- (6) The applicant must have a fixed base of operation, equipment and materials, must be adequate for an applicant to demonstrate the basic skills of the rating sought.
- (7) The applicant must have an airworthy aircraft, other aircraft, aircraft subassemblies, operational mock-ups, and other aids that may be used for testing.
- (8) The applicant must have tools, equipment, material, current publications, and necessary apparatus required to complete a project assignment must be the type recommended by the aircraft manufactures or accepted in the aviation industry.

2.6.6.2 KNOWLEDGE

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

2.6.6.3 SKILL

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

2.6.6.4 CURRENCY

- (a) After designation, a Mechanic examiner shall maintain currency by
- (b) Attending initial and recurrent training conducted by the DCA, and
- (c) Maintaining a current and valid AMT licence and applicable ratings.

- (d) The AMT examiner shall conduct at least 6 skill tests during any 12 calendar month period in order to the designation remain current.
- (e) The AMT examiner shall be observed by the DCA in the conduct of skill test at least once each 12 calendar months.

2.6.6.5 PRIVILEGES

- (a) The AMT examiner may conduct skill test in accordance with the STS standards.

2.6.6.6 VALIDITY

- (a) The AMT examiner designation shall be valid for one year.

2.6.6.7 RENEWAL

- (a) The AMT examiner designation may be renewed by DCA if:
 - (b) The need for the designation remains valid.
 - (c) The performance of the AMT examiner has been satisfactory.
 - (d) The AMT examiner has attended the AMT examiner training conducted by the DCA in the previous 12 calendar months.

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

2.7.3 AIR TRAFFIC CONTROLLER LICENCE AND RATINGS

2.7.3.1 STUDENT AIR TRAFFIC CONTROLLER

- (a) Authority shall take the appropriate measures to ensure that student air traffic controllers do not constitute a hazard to air navigation.
- (b) Medical fitness: Authority shall not permit a student air traffic controller to receive instruction in an operational environment unless that student air traffic controller holds a current Class 3 Medical Certificate.

2.7.3.2 AIR TRAFFIC CONTROLLER LICENCE

- (a) Age. The applicant for an air traffic controller licence shall be not less than 21 years of age.

- (b) Medical. The applicant for an air traffic controller licence shall hold a Class 3 medical certificate issued under this Part.
- (c) Knowledge. The applicant for an air traffic controller licence shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an air traffic controller licence:
 - (1) Air law:
 - (i) Rules and regulations relevant to the air traffic controller.
 - (2) Air traffic control equipment:
 - (i) Principles, use and limitations of equipment used in air traffic control.
 - (3) General knowledge:
 - (i) Principles of flight; principles of operation and functioning of aircraft, powerplants and systems; aircraft performances relevant to air traffic control operations.
 - (4) Human performance: human performance relevant to air traffic control.

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

 - (5) Meteorology:
 - (i) Aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry.
 - (6) Navigation:
 - (i) Principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids.
 - (7) Operational procedures:
 - (i) Air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.- (d) Knowledge testing. An applicant for an air traffic controller licence shall:
 - (1) Have received an endorsement for the knowledge test from an authorized instructor who:
 - (i) Conducted the training on the knowledge areas; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test.
- (e) Experience. The applicant shall have completed an approved training course and not less than three months' satisfactory service engaged in the actual control of air traffic under the supervision of an appropriately rated air traffic controller. The experience requirements specified for air traffic controller ratings in paragraph 2.7.3.2 will be credited as part of the experience specified in this paragraph.

- (f) Validity. Subject to compliance with the requirement specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.4.

2.7.3.3 AIR TRAFFIC CONTROLLER RATINGS

- (a) Air traffic controller ratings shall comprise the following categories:

- (1) Aerodrome control rating.
- (2) Approach control rating.
- (3) Approach radar control rating.
- (4) Approach precision radar control rating.
- (5) Area control rating.
- (6) Area radar control rating.

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

- (b) Knowledge. The applicant for an air traffic controller rating shall receive knowledge instruction through an approved training course on the knowledge areas appropriate to the holder of an air traffic controller rating on the subjects as specified below for each rating sought:

- (1) Aerodrome control rating:
 - (i) Aerodrome layout, physical characteristics and visual aids.
 - (ii) Airspace structure.
 - (iii) Applicable rules, procedures and source of information.
 - (iv) Air navigation facilities.
 - (v) Air traffic control equipment and its use.
 - (vi) Terrain and prominent landmarks.
 - (vii) Characteristics of air traffic.
 - (viii) Weather phenomena.
 - (ix) Emergency and search and rescue plans.
- (2) Approach control 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.
 - (viii) Emergency and search and rescue plans.
- (3) Approach radar, approach precision radar and area radar control ratings. The applicant shall meet the requirements specified in (2) in so far as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:
- (i) Principles, use and limitations of radar, other surveillance systems and associated equipment; and
 - (ii) Procedures for the provision of approach, precision approach or area radar control services, as appropriate, including procedures to ensure appropriate terrain clearance.
- (c) Knowledge testing. An applicant for an air traffic controller rating shall:
- (1) Have received an endorsement for the knowledge test from an authorized instructor who:
 - (i) Conducted the training on the knowledge areas; and
 - (ii) Certifies that the person is prepared for the required knowledge test; and
 - (2) Pass the required knowledge test.
- (d) Experience. The applicant for an air traffic controller licence shall have:
- (1) Satisfactorily completed an approved training course.
 - (2) Provided, satisfactorily, under the supervision of an appropriately rated air traffic controller:
 - (i) Aerodrome control rating: an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought.
 - (ii) Approach, approach radar, area or area radar control rating: the control service for which the rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought.
 - (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 DCA. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought.
 - (3) If the privileges of the approach control surveillance rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator (ppi) approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated approach radar controller.
 - (4) The experience specified under (2)(ii) shall have been completed within the 6-month period immediately preceding application.

- (e) Skill. The applicant shall have demonstrated by passing the required skill test, at a level appropriate to the privileges being granted, the skill, judgement and performance required to provide a safe, orderly and expeditious control service, including the recognition and management of threats and errors.

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

- (f) Privileges and limitations.
- (1) Subject to compliance with the requirements specified in this Part, the privileges of the holder of an air traffic controller licence with the following applicable rating(s) shall be:
- (i) Aerodrome control rating: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated.
 - (ii) Approach control rating: to provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.
 - (iii) Approach radar control rating: to provide and/or supervise the provision of approach control service with the use of radar or other surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.

Note: Subject to compliance with the provisions of (d)(2)(iii), the privileges shall include the provision of surveillance radar approaches.

- (iv) Approach precision radar control rating: to provide and/or supervise the provision of precision approach radar service at the aerodrome for which the licence holder is rated.
 - (v) Area control rating: to provide and/or supervise the provision of area control service within the control area or portion thereof, for which the licence holder is rated.
 - (vi) Area radar control rating: to provide and/or supervise the provision of area control service with the use of radar, within the control area or portion thereof, for which the licence holder is rated.
- (2) Before exercising the privileges indicated in (d)(1), the licence holder shall be familiar with all pertinent and current information.
- (3) A holder of an air traffic controller licence and ratings(s) shall not provide instruction in an operational environment unless the licence holder has received proper authorisation from the DCA.
- (g) Validity of ratings. A rating shall become invalid when an air traffic controller has ceased to exercise the privileges of the rating for a period of 6 months. A rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

2.8 FLIGHT OPERATIONS OFFICER LICENCE, INSTRUCTORS, AND DESIGNATED EXAMINERS

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

2.8.1 APPLICABILITY

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

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

2.8.3.1 GENERAL REQUIREMENTS

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

(iv) Basic principles of computer-assisted planning systems.

(4) Human performance:

(i) Human performance relevant to dispatch duties.

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

(5) Meteorology:

(i) Aeronautical meteorology; the moment of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions.

(ii) Interpretation and application of aeronautical meteorological reports, charts and forecasts, codes and abbreviations; use of, and procedures for obtaining, meteorological information.

(6) Navigation:

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

(7) Operational procedures:

(i) Use of aeronautical documentation;

(ii) Operational procedures for the carriage of freight and dangerous goods;

(iii) Procedures relating to aircraft accidents and incidents; emergency flight procedures;

(iv) Procedures relating to unlawful interference and sabotage of aircraft; and

(8) Principles of flight:

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

(9) Radio communication:

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

(c) The applicant for the Flight Operations Officer licence shall:

(1) Have received an endorsement for the knowledge test from an authorised instructor who:

(i) Conducted the training on the knowledge areas; and

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

(2) Pass the required knowledge test.

(d) Experience.

(1) The applicant for a flight operations officer licence shall have gained the following experience:

(i) A total of 2 years' service in any one or in any combination of the capacities specified in (A) to (C) inclusive, provided that in any

combination of experience the period serviced in any capacity shall be at least one year:

- a) A flight crewmember in air transportation; or
 - b) A meteorologist in an organisation dispatching aircraft in air transportation; or
 - c) An air traffic controller; or a technical supervisor of flight operations officers or air transportation flight operations systems.
- (ii) At least one year as an assistant in the dispatching of air transport.
 - (iii) Have satisfactorily completed a course of approved training.
- (2) The applicant shall have served under the supervision of a flight operations officer for at least 90 working days within the 6 months immediately preceding the application.
- (e) Skill. The applicant shall have demonstrated the ability, by passing a skill test on the subjects listed in IS 2.8.3.2 to:
- (1) Make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports; provide an operationally valid briefing on weather conditions prevailing in the general neighbourhood of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates.
 - (2) Determine the optimum flight path for a given segment, and create accurate manual and/or computer generated flight plans.
 - (3) Provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions as appropriate to the duties of the holder of a flight operations officer licence.
 - (4) Recognise and management threats and errors.
- Note. Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services – Training, ICAO Doc 9869, PANS-TRG, Chapter 3, Attachment C, in Part II, Chapter 2, of the Human Factors Training Manual, ICAO Doc 9683.*
- (f) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a flight operations officer licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the requirements in ICAO Annex 6, as contained in Parts 8 and 9 of these regulations.
 - (g) Validity. The validity period of the licence is 5 years. A licence shall become invalid when a flight operations officer has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the flight operations officer's ability to exercise the privileges of the licence has been re-established.
 - (h) Renewal. The Flight Operations Officer Licence may be renewed by presenting to the DCA evidence of successfully passing a competency check on the areas of operation listed in IS: 2.8.3.2.
 - (i) Reissue. If the Flight Operations Officer Licence has expired, the applicant shall have received refresher training acceptable to the DCA.

2.8.3.2 SKILL TEST FOR THE FLIGHT OPERATIONS OFFICER LICENCE

- (a) Implementing Standard (IS) 2.8.3.2 contains the list of operations included in the flight operations officer licence skill test.

2.8.4 INSTRUCTORS FOR FLIGHT OPERATIONS OFFICERS

2.8.4.1 REQUIREMENTS FOR FLIGHT OPERATIONS OFFICER INSTRUCTOR LICENCE

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

2.8.5 DESIGNATED EXAMINERS FOR FLIGHT OPERATION OFFICERS

2.8.5.1 GENERAL REQUIREMENTS

- (a) Age. An applicant for a flight operations officer examiner license shall be at least 23 years of age.
- (b) General Eligibility.
 - (1) Show evidence of a high level of aeronautical knowledge in the subject areas for the Flight Operations Officer (FOO) certification.
 - (2) Have held a FOO license for at least five years prior to the designation.

- (3) Have been actively exercising the privileges of the FOO license in commercial air transport in the previous three years.
- (4) Have a good record as a FOO and a person engaged in the industry and community with a reputation for honesty and dependability.
- (5) Have satisfactorily completed the FOO examiner orientation program with the Authority.
- (6) The applicant must have available a test site that is fully capable of doing all items required for the proper dispatch of a commercial flight in accordance with the regulatory requirements. This may be the Flight Operations Office of an active commercial airline.

2.8.5.2 KNOWLEDGE

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

2.8.5.3 SKILL

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

2.8.5.4 CURRENCY

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

2.8.5.5 PRIVILEGES

- (a) The FOO examiner may conduct Skill test for the Flight Operation Officer license in accordance with approved STS standard.
- (b) The FOO examiner may conduct or monitor any portion of a computerized knowledge test.

2.8.5.6 VALIDITY

- (a) The FOO examiner licence shall be valid for one year.

2.8.5.7 RENEWAL

- (a) The FOO examiner designation may be renewed by the DCA if:
 - (1) The need for the designation remains valid;
 - (2) The performance of the examiner has been satisfactory; and

2.9 AERONAUTICAL STATION OPERATOR AND METEOROLOGICAL PERSONNEL

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

2.9.1 APPLICABILITY

- a) This section prescribes the requirements for the issue, renewal or re-issue of an aeronautical station operator licence.

2.9.2 GENERAL

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

2.9.3 AERONAUTICAL STATION OPERATOR LICENCE

- (a) Age. The applicant for an aeronautical station operator licence shall be not less than 18 years of age.
- (b) Knowledge. The applicant for an aeronautical station operator licence shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges of an aeronautical station operator:
 - (1) General Knowledge. Air traffic services provided within Lao PDR.
 - (2) Operational Procedures. Radiotelephony procedures; phraseology; telecommunication network.
 - (3) Rules and regulations. Rules and regulations applicable to the aeronautical station operator.

- (4) Telecommunication equipment. Principles, use and limitations of telecommunication equipment in an aeronautical station.
- (c) Knowledge testing. An applicant for an aeronautical station operator licence shall—
 - (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge areas; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test.
- (d) Experience. The applicant for an aeronautical station operator licence shall have:
 - (1) Satisfactorily completed an approved training course within the 12-month period immediately preceding application, and have served satisfactorily under a qualified aeronautical station operator for not less than 2 months; or
 - (2) Satisfactorily served under a qualified aeronautical station operator for not less than 6 months during the 12-month period immediately preceding application.
- (e) Skill. The applicant for an aeronautical station operator licence shall demonstrate, or have demonstrated, competency in:
 - (1) Operating the telecommunication equipment in use; and
 - (2) Transmitting and receiving radiotelephony messages with efficiency and accuracy.
- (f) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of an aeronautical station operator licence shall be to act as an operator in an aeronautical station. Before exercising the privileges of the licence, the holder shall be familiar with all pertinent and current information regarding the types of equipment and operating procedures used at that aeronautical station.
- (g) Validity: The validity period of the licence is 5 years. A licence shall become invalid when an aeronautical station operator has ceased to exercise the privileges of the licence for a period of 6 months. A licence shall remain invalid until the aeronautical station operator's ability to exercise the privileges of the licence has been re-established.
- (h) Renewal. An aeronautical station operator licence that has not expired may be renewed for an additional five years if the holder presents to the DCA evidence that he/she has within the past 6 months preceding the expiry date —
 - (1) Be actively engaged in the duties of an aeronautical station operator, or
 - (2) Received refresher training acceptable to the DCA.
- (i) Reissue. If the Aeronautical Station Operator licence has expired, the applicant shall have received refresher training acceptable to the DCA.

2.9.4 AERONAUTICAL METEOROLOGICAL PERSONNEL

- (a) The requirements for training and qualifications for all aeronautical meteorological personnel are the responsibility of the World Meteorological Organisation (WMO) in

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

2.10 RESERVED

2.11 MEDICAL PROVISIONS FOR LICENSING

2.11.1 GENERAL

Note: States shall apply, as part of their State safety programme, basic safety management principles to the medical assessment process of licence holders that as a minimum include:

- (a) Routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
- (b) Continuous re-evaluation of the medical assessment process to concentrate on identified areas of increases medical risk.

Note 1. Basic safety management principles, when applied to the medical assessment process, can help ensure that aeromedical resources are utilised effectively.

Note 2. Guidance on State safety programme and safety management principles is contained in Safety Management Manual (SMM) (Doc 9859) and the Manual of Civil Aviation Medicine (Doc 8984).

2.11.1.1 APPLICABILITY

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

2.11.1.2 MEDICAL FITNESS

- (a) The applicants for a flightcrew licence and air traffic controller licence shall hold a medical certificate issued in accordance with this Part.
- (b) The flight crewmembers or air traffic controllers shall not exercise the privileges of their licence unless they hold a current medical certificate appropriate to the licence.

2.11.1.3 AVIATION MEDICAL EXAMINERS (AME)

- (a) Subject to compliance with the requirements specified in this Part, the DCA will designate and authorise qualified and licensed physicians in the practice of medicine, to be authorised as an AME and conduct medical examinations of fitness of applicants for the issue, renewal or re-issue of the licences or ratings specified in this Part. AMEs may be designated outside of Lao PDR.
- (b) AMEs shall have had, or shall receive:
 - (1) Basic training in aviation medicine for Class 2 and 3 medical examinations on the subjects listed in IS 2.11.1.3. (a); and

- (2) Advance training in aviation medicine for Class 1 medical examinations on the subjects listed in IS 2.11.1.3(b).
- (c) AMEs shall acquire knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.
- (d) The AME shall be required to submit sufficient information to the Licensing Authority to enable that Authority to undertake Medical Assessments audits.
- (e) The authorisation of an AME is valid for 3 years. The AME shall have completed at least 10 examinations for a medical certificate per year. Renewal of the AME designation will be at the discretion of the DCA.
- (f) Having completed the medical examination of an applicant in accordance with this Section, the AME shall submit a signed report to the DCA, detailing the results of the examination.
- (g) If the medical examination is carried out by a constituted group of AMEs, the head of the group will be appointed by the DCA, who will be responsible for coordinating the results of the examination and signing the report.
- (h) The DCA retains the right to reconsider any action of an AME.
- (i) The AME shall respect medical confidentiality at all times.
- (j) The AME shall securely hold all medical reports and records with accessibility restricted to authorised personnel.

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

2.11.1.4 AVIATION MEDICAL EXAMINATIONS

- (a) Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the AME a declaration stating whether they have previously undergone such an examination and, if so, the date, place and results of last examination.
- (b) The applicant shall indicate to the medical examiner whether a medical certificate has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension.
- (c) Each applicant for a medical certificate shall provide the AME with a personally certified statement of medical facts concerning personal, familial and hereditary history.
- (d) Each applicant for a medical certificate shall produce proof of identification as specified in 2.2.5.5(c).
- (e) Any false declaration to an AME made by an applicant for a licence or rating shall be reported to the DCA for such action as may be considered appropriate.
- (f) The applicant shall complete the appropriate application form as prescribed by the DCA

2.11.1.5 SPECIAL CIRCUMSTANCES

- (a) If the medical requirements prescribed in Part 2 for a particular licence are not met, the appropriate medical certificate will not be issued, renewed or re-issued unless the following conditions are fulfilled:
 - (1) Accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;
 - (2) Relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and
 - (3) The licence is endorsed by the DCA with any special limitation or limitations when the safe performance of the licence holder's duties is dependent on compliance with such limitation or limitations.
- (b) The AME shall report to the DCA any individual case where, in the AME's judgement, an applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardize flight safety.

2.11.1.6 DECREASE OF MEDICAL FITNESS

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

2.11.1.7 USE OF PSYCHOACTIVE SUBSTANCES

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

2.11.1.8 MEDICAL CERTIFICATE

- (a) The medical certificate shall be in a form and manner prescribed by the DCA. The items required on the licence are indicated in IS 2.11.1.8.
- (b) Issue of medical certificates.
 - (1) A medical certificate will be issued to any person who meets the medical requirements prescribed in this Subpart, based on medical examination and evaluation of the applicant's history and condition.
 - (i) The issue of the Class 1 medical certificate may be specifically delegated to an AME.
 - (ii) The issue of Class 2 and 3 medical certificates may be delegated to any authorised AME.

- (2) Each person to be issued a medical certificate shall undergo a medical examination based on the physical and mental requirements contained in this Subpart.
 - (3) Any person who does not meet the medical requirements of this Subpart may apply for the discretionary issuance of a certificate under 2.11.1.5.
- (c) Validity:
- (1) The validity period of the medical certificate shall be:
 - (i) 12 months for the Class 1 for the CPL and ATPL licences.
 - (ii) 12 months for the Class 2 for the FE and FN licences.
 - (iii) 60 months for the Class 2 for the PPL licences.
 - (iv) 48 months for the Class 3 for the air traffic controller licence.
 - (2) The exceptions for the validity period of the medical certificate are:
 - (i) When the holders have passed their 40th birthday:
 - a) The 60 month interval specified for the PPL and air traffic controller licence shall be reduced to 24 months; and
 - b) The 12 month interval specified for the CPL and ATPL who are carrying passengers in single-pilot operations shall be reduced to 6 months.
 - (ii) When holders have passed their 50th birthday:
 - a) The 24 month interval specified for the PPL and air traffic controller licence shall be reduced to 12 months.
 - (3) For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. The period of validity shall for the last month counted, include the day that has the same calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.
 - (4) The period of validity of a Medical Certificate may be extended at the discretion of the Licensing Authority, up to 45 days.
- Note: It is advisable to let the calendar day on which the Medical Certificate expires remain constant year after year by allowing the expiry date of the current Medical Certificate to be the beginning of the new validity period under the proviso that the medical examination takes place during the period of validity of the current Medical Certificate but no more than 45 days before it expires.*
- (5) The period of validity of a medical certificate may be reduced when clinically indicated.
- (d) Renewal or re-issue of a medical certificate.
- (1) The requirements to be met for the renewal or re-issue of a medical certificate are the same as those for the initial certificate except where otherwise specifically stated.

- (2) The renewal of the Class 1, 2 and 3 medical certificate may be delegated to the authorised AME.
 - (3) Re-issue of the Class 1 medical certificate will be done by the DCA.
 - (4) Re-issue of the Class 2 and 3 medical certificate may be delegated to the authorised AME.
- (e) Limitation or denial.
- (1) The DCA may for medical reasons justified and notified to the applicant limit or deny a medical certificate.
- (f) Suspension or revocation of a medical certificate.
- (1) The DCA may in accordance with paragraph 2.2.9 suspend or revoke a medical certificate issued, if it is established that an applicant or a certificate holder has not met, or no longer meets the requirements of Part 2.

2.11.1.9 MEDICAL ASSESSOR

- (a) The DCA medical assessor will periodically evaluate the competence of each AME.
- (b) The DCA will use the services of physicians experienced in the practice of aviation medicine when it is necessary to evaluate reports submitted to the DCA by medical examiners.

2.11.2 MEDICAL REQUIREMENTS

2.11.2.1 GENERAL

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

2.11.2.2 PHYSICAL AND MENTAL REQUIREMENTS

- (a) An applicant for any class of Medical Assessment shall be required to be free from:
 - (1) Any abnormality, congenital or acquired; or
 - (2) Any active, latent, acute or chronic disability; or
 - (3) Any wound, injury or sequelae from operation; or
 - (4) Any effect or side-effect of any prescribed or non-prescribed therapeutic medication taken; such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.
- (b) An applicant with depression, being treated with antidepressant medication, shall be assessed as unfit unless the medical assessor, having access to the details of the case

concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

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

2.11.2.3 VISUAL ACUITY TEST REQUIREMENTS

- (a) Visual acuity tests must be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m²).
- (b) Visual acuity must be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

2.11.2.4 COLOUR PERCEPTION REQUIREMENTS

- (a) The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.
- (b) The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission of Illumination (CIE).
- (c) An applicant obtaining a satisfactory result as prescribed by the DCA 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.

2.11.2.5 HEARING TEST REQUIREMENTS

- (a) Applicants shall be required to demonstrate hearing performance sufficient for the safe exercise of their licence and rating privileges.
- (b) The hearing test may be conducted using a pure tone audiometer or alternate method that will provide equivalent results. This test shall be performed at the first medical examination and then at specified intervals according to the class of medical examination and age of the applicant.
- (c) If a pure tone audiometer is used, the reference zero for calibration is that of the International Organization for Standardization (ISO) Recommendation R389, 1964.
- (d) For hearing tests where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests under the following conditions.

- (1) A quiet room is a room in which the intensity of the background noise is less than 35 dB(A) when measured on “slow” response of an “A”-weighted sound level meter.
 - (2) the sound level of an average conversational voice at 1 m from the point of output is 60dB(A) and that of a whispered voice is 45dB(A). At 2 m from the speaker, the sound is 6 dB(A) lower.
- (e) The holder of a PPL with an instrument rating shall meet the hearing requirements for the Class 1 medical certificate.

2.11.2.6 CLASS 1 MEDICAL CERTIFICATE

(a) Certificate Issue and Renewal

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

Note. Guidance for Licensing Authorities wishing to reduce the emphasis on detection of physical disease, while increasing the emphasis on health education and prevention of ill health, in applicants under 40 years of age, is contained in the Manual Civil Aviation Medicine (Doc 8984).

- (5) A Class 1 medical certificate will be issued when the applicant complies with the requirements of this Part.

(b) Physical and Mental Requirements

- (1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
- (2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:
 - (i) An organic mental disorder;
 - (ii) A mental or behavioural disorder due to use of psychoactive substances ; this induces dependence syndrome induced by alcohol or other psychoactive substances;
 - (iii) Schizophrenia or a schizotypal or delusional disorder;
 - (iv) A mood (affective) disorder;

- (v) A neurotic, stress-related or somatoform disorder;
- (vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
- (vii) Mental retardation;
- (viii) A disorder of psychological development;
- (ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or
- (x) A mental disorder not otherwise specified.

Note: A history of acute toxic psychosis need not be regarded as disqualifying, provided that the applicant has suffered no permanent impairment.

- (3) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (i) A progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (ii) Epilepsy; or
 - (iii) Any disturbance of consciousness without satisfactory medical explanation of cause.
- (4) The applicant shall not have suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (5) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (6) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (7) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with the safe exercise of the applicant's licence or rating privileges.
- (8) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate.
- (9) Electrocardiography shall be included in re-examination of applicants over the age of 50 at least annually.

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

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

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

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

- (12) There shall be no significant functional nor structural abnormality of the circulatory system.
- (13) There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.
- (14) Radiography shall form a part of the initial chest examination.

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

- (15) Applicant's with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (16) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (17) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

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

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

- (20) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.
- (21) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.
- (22) Applicants with sequela of disease of, or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacity in flight, in particular any obstructions due to structure or compression shall be assessed as unfit.

- (23) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the DCA medical authority designated for the purpose by Lao PDR and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.
- (24) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (25) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

Note: Guidance material on assessment of Type 2 insulin treated diabetic applicants, under the provisions of 2.11.1.5, is contained in the Manual of Civil Aviation Medicine (Doc 8984).

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

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

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

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

- (28) Applicants with renal or genitourinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (29) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

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

- (30) Applicants with sequelae of disease or surgical procedures on the kidneys or the genitourinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (31) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- (32) Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unit unless the applicant's conditions has been investigated and evaluated in accordance with the best practice and is assessed as not likely to interfere with the safe exercise of the applicant's license or rating privileges.

Note 1: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

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

- (33) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy. The fit assessment period may be limited from the end of the 12th week until the end of the 26th week of gestation.
- (34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.
- (35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

- (36) The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (37) There shall be:
 - (i) No disturbance of vestibular function;
 - (ii) No significant dysfunction of the Eustachian tubes; and
 - (iii) No unhealed perforation of the tympanic membranes.
- (38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

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

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

(c) Visual Requirements

- (1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an

extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

- (2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
- (i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note 1: Item (2) is the subject of Standards in Annex 6, Part 1.

Note 2: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the DCA. Both uncorrected and correct visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

- (3) Applicants may use contact lenses to meet the requirement of (b) provided that:
- (i) The lenses are monofocal and non-tinted;
 - (ii) The lenses are well tolerated; and
 - (iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the 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.

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

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

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

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

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

- (6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
- (7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in

the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correcting already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

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

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

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

- (8) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
 - (9) The applicant shall be required to have normal fields of vision.
 - (10) The applicant shall be required to have normal binocular function.
 - (11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.
- (d) Hearing Requirements.
- (1) The applicant shall be tested by pure-tone audiometry.
 - (i) At the initial medical examination.
 - (ii) At least once every five years up to the age of 40 years.
 - (iii) At least once every three years after the age of 40 years.
 - (2) The applicant shall not have a hearing loss in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz. However, an applicant with a hearing loss greater than the above may be declared fit provided that:
 - (i) The applicant has a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate the masking properties of flight deck noise upon speech and beacon signals; and
 - (ii) The applicant has the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner.

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

2.11.2.7 CLASS 2 MEDICAL CERTIFICATE

- (a) Certificate issue and renewal.
 - (1) An applicant for a PPL, a FE or FN licence shall undergo an initial medical examination for the issue of a Class 2 Medical Certificate.
 - (2) Except where otherwise stated in this subpart, holders of a PPL, a FE or a FN licence shall have their Class 2 Medical Certificate renewed at intervals not exceeding those specified in this subpart.
 - (3) A Class 2 Medical Certificate will be issued when the applicant complies with the requirements of this Part.
- (b) Physical and mental requirements.
 - (1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
 - (2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:
 - (i) An organic mental disorder;
 - (ii) A mental or behavioural disorder due to use of psychoactive substances; this induces dependence syndrome induced by alcohol or other psychoactive substances;
 - (iii) Schizophrenia or a schizotypal or delusional disorder;
 - (iv) A mood (affective) disorder;
 - (v) A neurotic, stress-related or somatoform disorder;
 - (vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
 - (vii) Mental retardation;
 - (viii) A disorder of psychological development;
 - (ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or
 - (x) A mental disorder not otherwise specified.

Note: A history of acute toxic psychosis need not be regarded as disqualifying, provided that the applicant has suffered no permanent impairment.

- (3) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, have access to the details of the case concerned, considers the applicants, condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

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

- (4) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (i) A progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (ii) Epilepsy; or
 - (iii) Any disturbance of consciousness without satisfactory medical explanation of cause.
- (5) The applicant shall not have suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (6) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (7) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (8) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate:
 - (i) After the age of 40; and
 - (ii) In re-examinations every two years after the age of 50.

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

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

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

- (11) The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion is compatible with the safe exercise of the applicant's licence and rating privileges.

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

- (12) There shall be no significant functional nor structural abnormality of the circulatory system.
- (13) There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.
 - (i) Radiography shall form a part of the initial chest examination.

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

- (14) Applicant's with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (15) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (16) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

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

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

- (19) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- (20) The applicant shall be completely free from those hernias that might give rise to incapacitating symptoms.
- (21) Applicants with sequelae of disease of, or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to structure or compression shall be assessed as unfit.
- (22) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the DCA medical authority designated for that purpose by Lao PDR and having

access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.

- (23) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (24) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- (25) Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

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

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

- (27) Applicants with renal or genitor-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (28) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

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

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

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

- (31) Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best practice and is assessed as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

Note 1: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

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

- (32) Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk, uncomplicated pregnancy.
- (33) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with item 32 above, the fit assessment should be limited to period from the end of the 12th week until the 26th week of gestation.
- (34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.
- (35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

- (36) The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (37) There shall be:
 - (i) No disturbance of vestibular function;
 - (ii) No significant dysfunction of the Eustachian tubes; and
 - (iii) No unhealed perforation of the tympanic membranes.
- (38) A single dry perforation of the tympanic membrane need not render the applicant unfit.

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

- (39) There shall no nasal obstruction and no malformation nor disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
 - (40) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.
- (c) Visual Requirements
- (1) The function of the eyes and their adnexae shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexae likely to reduce proper visual function to an

extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

- (2) Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
 - (i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

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

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

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

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

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

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

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

- (6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
- (7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near

correction is added to the spectacle correcting already prescribed in accordance with this paragraph; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

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

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

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

- (8) When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.
 - (9) The applicant shall be required to have normal fields of vision.
 - (10) The applicant shall be required to have normal binocular function.
 - (11) Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.
- (d) Hearing Requirements.
- (1) The applicant shall be tested by pure-tone audiometry.
 - (i) At the initial medical examination.
 - (ii) At least once every two years after the age of 50 years.
 - (2) When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz, shall be assessed as unfit.
 - (3) The applicant shall have the ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner, with the back turned to the examiner or be assessed as unfit.
 - (4) The applicant who holds a PPL with an IR shall meet the hearing requirements for a Class 1 medical certificate.

2.11.2.8 CLASS 3 MEDICAL CERTIFICATE

- (a) Certificate issue and renewal.
 - (1) An applicant for an Air Traffic Controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Certificate.

- (2) Except where otherwise stated in this subpart, holders of an Air Traffic Controller licence shall have their Class 3 Medical Certificate renewed at intervals not exceeding those specified in this subpart.
 - (3) A Class 3 Medical Certificate will be issued when the applicant complies with the requirements of this Part.
- (b) Physical and mental requirements.
- (1) The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
 - (2) The applicant shall have no established medical history or clinical diagnosis of any of the following such as might render the applicant unable to safely exercise the privileges of the licence applied for or held:
 - (i) An organic mental disorder;
 - (ii) A mental or behavioural disorder due to use of psychoactive substances; this induces dependence syndrome induced by alcohol or other psychoactive substances;
 - (iii) Schizophrenia or a schizotypal or delusional disorder;
 - (iv) A mood (affective) disorder;
 - (v) A neurotic, stress-related or somatoform disorder;
 - (vi) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
 - (vii) Mental retardation;
 - (viii) A disorder of psychological development;
 - (ix) A behavioural or emotional disorder, with onset in childhood or adolescence; or
 - (x) A mental disorder not otherwise specified.
 - (3) An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, have access to the details of the case concerned, considers the applicants, condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

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

Note: A history of acute toxic psychosis need not be regarded as disqualifying, provided that the applicant has suffered no permanent impairment.

- (4) The applicant shall have no established medical history or clinical diagnosis of any of the following:
 - (i) A progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
 - (ii) Epilepsy; or
 - (iii) Any disturbance of consciousness without satisfactory medical explanation of cause.
- (5) The applicant shall not have suffered any head injury, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (6) The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. A history of proven myocardial infarction shall be disqualifying.
- (7) An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (8) An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (9) Electrocardiography shall form part of the heart examination for the first issue of a medical certificate and in re-examinations every two years after the age of 50.

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

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

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

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

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

- (13) There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations. Radiography shall form a part of the initial chest examination.

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

- (14) Applicant's with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (15) Applicant's with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- (16) The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

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

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

- (19) Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- (20) Applicants with sequelae of disease of, or surgical intervention on any part of the digestive tract or its adnexae, likely to cause incapacity in flight, in particular any obstructions due to structure or compression shall be assessed as unfit.
- (21) An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, with a total or partial excision or a diversion of any of these organs shall be assessed as unfit until such time as the DCA medical authority designated for the purpose by Lao PDR and having access to the details of the operation concerned considers that the effects of the operation are not likely to cause incapacity in flight.
- (22) Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of the applicant's licence and rating privileges shall be assessed as unfit.
- (23) Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- (24) Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

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

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

- (26) Applicants with renal or genitor-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (27) Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

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

- (28) Applicants with sequelae of disease or surgical procedures on the kidneys or the genito-urinary tract, in particular any obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- (29) Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- (30) Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant's license or rating privileges.

Note 1: Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984)

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

Note 2: Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

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

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

- (32) During the gestational period, precautions should be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications
- (33) For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance (31) the fit assessment should be limited to the period until the end of the 34th week of gestation.
- (34) Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and has been assessed as fit to safely exercise the privileges of her licence and ratings.
- (35) The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

- (36) The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- (37) There shall 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.
- (38) Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

(c) Visual Requirements

- (1) The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, 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.
- (2) Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:
 - (i) Such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
 - (ii) In addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

Note: An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the DCA. Both uncorrected and correct visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity; any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

- (3) Applicants may use contact lenses to meet the requirement of (b) provided that:
 - (i) The lenses are monofocal and non-tinted;
 - (ii) The lenses are well tolerated; and
 - (iii) A pair of suitable correcting spectacles is kept readily available during the exercise of the 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.

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

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

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

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

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

- (6) Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.
- (7) The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by (b), the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correcting already prescribed in accordance with (b); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

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

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

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

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

Note: Defective stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.

(d) Hearing Requirements

- (1) The applicant shall be tested by pure-tone audiometry .
 - (i) At the initial medical examination.
 - (ii) At least once every four years up to the age of 40 years.
 - (iii) At least once every two years after the age of 40 years.
- (2) The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.
- (3) An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that will reproduces or simulates that experience in a normal air traffic control working environment.
- (4) Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.