

# Democratic Socialist Republic of Sri Lanka



## Civil Aviation Authority of Sri Lanka

### Implementing Standards

(Issued under Sec. 120, Civil Aviation Act No. 14 of 2010)

### **Title: Personnel Licensing Requirements - Definitions and General Rules**

**Reference No:** IS - 1 - 1

**S.N:** 050

**Date:** 01<sup>st</sup> May 2018

Pursuant to Sec. 120 of the Civil Aviation Act No.14 of 2010, Director General of Civil Aviation shall have the power to issue, whenever he considers it necessary or appropriate to do so, such Implementing Standards for the purpose of giving effect to any of the provisions of the Civil Aviation Act, any regulations or rules made thereunder including the Articles of the Convention on International Civil Aviation which are specified in the Schedule to the Act.

Accordingly, I being the Director General of Civil Aviation do hereby issue the Implementing Standards as mentioned in the Attachment hereto (Ref. Attachment No. IS -1 -1-Att.), elaborating the requirements contained in Chapter -1 Definitions and General Rules Concerning Licences, ICAO Annex 1-“Personnel Licensing” which are specified in the Attachment.

This Implementing Standard shall come into force with immediate effect and remain in force unless revoked.

Attention is also drawn to sec. 103 of the Act, which states inter alia that failure to comply with Implementing Standard is an offence.

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Enclosure: Attachment No. IS -1 – 1- Att.

# Implementing Standards

## Personnel Licensing Requirements – Definitions and General Rules

Compliance to Annex 1 Chapter 1

### 01. GENERAL:

- i. Requirements contained in this document are based on the ICAO annex 1-“Personnel Licensing” Chapter 1 Amendment 174 -Definition and General Rules Concerning Licences.
- ii. This document supersedes the Aviation Safety Notice (ASN) 054 issued by the DGCA and ASN 054 and shall be treated as null and void.
- iii. The document may be amended from time to time and the amendments will be reflected with the vertical line on the right side of the text. This IS consists Amendment of 170,171,172,173 & 174 to Annex 1.
- iv. Amendment 173 denoted by \* will be applicable from 8<sup>th</sup> November 2018.
- v. Appendix ‘1’, Appendix ‘2’, Appendix ‘3’ & Attachment ‘A’ included in this IS.

### 02. APPLICABILITY:

The requirements contained in this document are applicable to

1. Holders or applicants for Personnel Licences
2. Holders or applicants for a licence for air Transport Operations
3. Air Navigation Service Providers
4. Civil Aviation Medical Examiners
5. All Knowledge Examiners
6. Flight Test Examiners
7. ATC Check Controllers
8. AML Practical/OJT Assessors
9. FOO Practical Examiners
10. ASO Practical Examiners
11. Holders or applicants for Approved Training Organizations and approved training

### 03. ORGANIZATION OF THE IMPLEMENTING STANDARD

The Implementing Standard is divided into two parts;

- PART I : Personnel Licensing Requirements - Definitions and General Rules (Compliance to Annex 1 Chapter 1)
- PART II : Additional requirements for Personnel Licences and Ratings

## PART I

### Personnel Licensing Requirements - Definitions and General Rules (Compliance to Annex 1 Chapter 1)

#### 1.0 Definitions and General Rules Concerning Licence

##### 1.1 Definitions

When the following terms are used in the Aviation Safety Notices/Implementing Standards for Personnel Licensing, they have the following meanings:

**Accredited medical conclusion.**

The conclusion reached by one or more medical experts acceptable to DGCA Sri Lanka for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.

**Aeroplane.**

A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces, which remain, fixed under given conditions of flight.

**Aircraft.**

Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

**Aircraft avionics.**

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

**Aircraft — category.**

Classification of aircraft according to specified basic characteristics, e.g. aeroplane, helicopter, glider, free balloon.

**Aircraft certificated for single-pilot operation.**

A type of aircraft, which the State of Registry has determined, during the certification process, can be operated safely with a minimum crew of one pilot.

**Aircraft required to be operated with a co-pilot.**

A type of aircraft that is required to be operated with a co-pilot, as specified in the flight manual or by the air operator certificate.

**Aircraft — type of.**

All aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.

**Airmanship.**

The consistent use of good judgment and well-developed knowledge, skills and attitudes to accomplish flight objectives.

**Airship.**

A power-driven lighter than air aircraft

**Approved maintenance organization.**

An organization approved by DGCA Sri Lanka, in accordance with the requirements of IS 017 Aircraft Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by him.

*Note.-*

Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.

**Approved training.**

Training conducted under special curricula and supervision approved by DGCA Sri Lanka.

**Approved training Organization.**

An organization approved by and operating under the supervision of DGCA Sri Lanka in accordance with the requirements of, paragraph 8.0 of this IS to perform approved training.

**ATS surveillance service.**

A Term used to indicate a service provided directly by means of ATS surveillance system.

**ATS surveillance system.**

A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground based system that enables the identification of aircraft.

*Note.-*

A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.

**Balloon.**

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

*Note.-*

For the purposes of this IS, this definition applies to free balloons.

**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

**Commercial air transport operation.**

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

**Competency.**

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

**Competency element.**

An action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.

**Competency unit.**

A discrete function consisting of a number of competency elements.

**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.

**Credit.**

Recognition of alternative means or prior qualifications.

**Cross-Country.**

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

**Dual instruction time.**

Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft.

**Error.**

An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.

*Note.*-See Chapter 1 of Annex 19 – Safety Management for a definition of operational personnel

**Error management.**

The process of detecting and responding to errors with counter measures that reduce or eliminate the consequences of errors, and mitigate the probability of further errors or undesired states.

*Note.*-

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

**Flight crewmember.**

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

**Flight plan.**

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

**Flight procedures trainer.**

See Flight simulation training device.

**Flight simulation training device.**

Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

*A flight simulator,*

which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;

*A flight procedures trainer,*

which provides a realistic flight deck environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;

*A basic instrument flight trainer,*

which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.

**Flight simulator.**

See Flight simulation training device.

**Flight time — Aeroplanes.**

The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

*Note.-*

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

**Flight time – Helicopters.**

The total time from the moment a Helicopter’s rotor blades start turning until the moment the Helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.

**Glider.**

A non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces, which remain, fixed under given conditions of flight.

**Glider flight time.**

The total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight.

**Helicopter.**

A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

**Human performance.**

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

**Instrument flight time.**

Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.

**Instrument ground time.**

Time during which a pilot is practicing, on the ground, simulated instrument flight in a flight simulation training device approved by DGCA Sri Lanka.

**Instrument time.**

Instrument flight time or instrument ground time.

**Licensing Authority.**

The DGCA Sri Lanka who is the designated authority by the state as responsible for the licensing of personnel.

*Note.-*

In the provision of this IS DGCA Sri Lanka is deemed to be given the following responsibilities by the state:

- a) assessment of an applicant's qualifications to hold a licence or rating;
- b) issue and endorsement of licences and ratings;
- c) designation and authorization of approved persons;
- d) approval of training courses;
- e) approval of the use of flight simulation training device and authorization for their use in gaining the experience or in demonstrating the skill required for the issue of a licence or rating; and
- f) validation of licences issued by other Contracting States.

**Likely.**

In the context of the medical provisions in IS 036, likely means with a probability of occurring that is unacceptable to the Medical Assessor.

**Maintenance.**

The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

**Medical Assessment.**

The evidence issued by DGCA Sri Lanka that the licence holder meets specific requirements of medical fitness.

**Medical assessor.**

A physician, appointed by DGCA Sri Lanka, qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance.

*Note 1.-*

Medical Assessors evaluate medical reports submitted to DGCA Sri Lanka by medical examiners.

*Note 2.-*

Medical Assessors are expected to maintain the currency of their professional knowledge.

**Medical examiner.**

A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by DGCA Sri Lanka to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed.

**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 prescribed by DGCA Sri Lanka.

*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.

**Performance criteria.**

A simple, evaluative statements 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.

**Pilot (to).**

To manipulate the flight controls of an aircraft during flight time.

**Pilot-in-command.**

The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

**Pilot-in-command under supervision.**

Co- pilot performing, under the supervision of the pilot-in-command, the duties and functions of a pilot-in-command, in accordance with a method of supervision acceptable to DGCA Sri Lanka.

**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 flight regimes and on non-rotating aerofoil (s) for lift during horizontal flight.

**Problematic use of substances.**

The use of one or more psychoactive substances by aviation personnel in a way that:

- a) Constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or
- b) Causes or worsens an occupational, social, mental or physical problem or disorder.

**Psychoactive substances.**

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

**Quality system.**

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

**Rated air traffic controller.**

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

**Rating.**

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

**Rendering (a licence) valid.**

The action taken by DGCA Sri Lanka, 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.

**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 IS Nos. 80/145.

**Significant.**

In the context of the medical provisions in IS 036, significant means to a degree or of a nature that is likely to jeopardize flight safety.

**Solo flight time.**

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

**State Safety Programme (SSP).**

An integrated set of regulations and activities aimed at improving safety.

**Threat.**

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

*Note.-*

See Chapter 1 of Annex 19 – Safety Management for a definition of operational personnel

**Threat management.**

The process of detecting and responding to the threats with countermeasures that reduce or eliminate the consequences of threats, and mitigate the probability of errors or undesired states.

*Note.-*

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

## 1.2 General rules concerning licences

*Note 1.-*

Although the Convention on International Civil Aviation allocates to the State of Registry certain functions which that State is entitled to discharge, or obligated to discharge, as the case may be, the Assembly recognized, in Resolution A23-13, that the State of Registry may be unable to fulfil its responsibilities adequately in instances where aircraft are leased, chartered or interchanged - in particular without crew - by an operator of another State and that the Convention may not adequately specify the rights and obligations of the State of an operator in such instances until such time as Article 83 bis of the Convention enters into force. Accordingly, the Council urged that if, in the above-mentioned instances, the State of Registry finds itself unable to discharge adequately the functions allocated to it by the Convention, it delegate to the State of the Operator, subject to acceptance by the latter State, those functions of the State of Registry that can more adequately be discharged by the State of the Operator. While Article 83 bis of the Convention entered into force on 20 June 1997 in respect of Contracting States which have ratified the related Protocol (Doc 9318), the foregoing action will remain particularly relevant for those Contracting States which do not have treaty relations under Article 83 bis. It was understood that pending entry into force of Article 83 bis of the Convention, the foregoing action would only be a matter of practical convenience and would not affect either the provisions of the Chicago Convention prescribing the duties of the State of Registry or any third State. However, as Article 83 bis of the Convention entered into force on 20 June 1997, such transfer agreements will have effect in respect of Contracting States

which have ratified the related Protocol (Doc 9318) upon fulfilment of the conditions established in Article 83 bis.

*Note 2.-*

This IS stipulates the standards for licensing the following personnel: (please refer para (2) of section 66 of Act no 14 of 2010.)

- a) Flight crew
  - private pilot - aeroplane; airship; helicopter or powered lift
  - commercial pilot - aeroplane; airship; helicopter; or powered lift
  - multi-crew Pilot - aeroplane
  - airline transport pilot - aeroplane; helicopter; or powered lift
  - glider pilot;
  - free balloon pilot;
  - flight navigator;
  - flight engineer.
- b) Other personnel
  - aircraft maintenance (technician/engineer/ Mechanic);
  - air traffic controller;
  - flight operations officer/ Flight dispatcher
  - aeronautical station operator

### **1.2.1 Authority to act as a flight crewmember**

(Refer Para (3) of section 66 of Act no. 14 Of 2010, ANR 48, 49 and 94)

A person shall not act as a flight crew member of an aircraft registered in Sri Lanka unless a valid licence is held showing compliance with the specifications of this regulation and appropriate to the duties to be performed by that person. The licence shall have been issued by DGCA Sri Lanka or by any other Contracting State and rendered valid by DGCA Sri Lanka.

*Note.-*

Article 29 of the Convention on International Civil Aviation requires that the flight crew members carry their appropriate licences on board every aircraft engaged in international air navigation.

### **1.2.2 Method of rendering a licence valid**

(Refer para (5) of section 66 of Act no.14 of 2010.)

- 1.2.2.1** When DGCA Sri Lanka renders valid a licence issued by another Contracting State, as an alternative to the issuance of its own licence, he will establish its validity by a suitable authorization to be carried with the former licence accepting it as the equivalent of the latter. When DGCA Sri Lanka limits the authorization to specific privileges, the authorization shall specify the privileges of the licence which are to be accepted as its equivalent. The validity of the authorization shall not extend beyond the period of validity

of the licence. The authorization ceases to be valid if the licence upon which it was issued is revoked or suspended.

*Note.-*

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

**1.2.2.2** When an authorization under 1.2.2.1 is issued for use in commercial air transport operations, DGCA Sri Lanka shall confirm the validity of the other Contracting State's licence before issuing the authorization.

**1.2.2.3** Rendering a licence valid pursuant to a formal agreement between Contracting States under common licensing regulations

**1.2.2.3.1** Notwithstanding the provisions in 1.2.2.1 and 1.2.2.2, DGCA Sri Lanka may automatically render valid each other's licences, provided that the States shall have:

- a) adopted common licensing regulations that are compliant with this Annex;
- b) entered into a formal agreement recognizing the automatic validation process;
- c) established a surveillance system to ensure the continuing implementation of the common licensing regulations; and
- d) registered the agreement with ICAO pursuant to Article 83 of the Convention on International Civil Aviation.

*Note 1.-*

The registry of agreements with their associated list of Contracting States can be found in ICAO's Database of Aeronautical Agreements and Arrangements.

*Note 2.-*

Common licensing regulations refer to a common licensing regulatory framework that is legally binding and directly applicable to Contracting States party to the agreement, recognizing the automatic validation process. Common licensing regulations used by those States contain identical requirements for licence issuance, maintenance of competency and recent experience. A regional aviation safety body can develop and maintain these common regulations for its member States.

**1.2.2.3.2** An endorsement shall appear on licences rendered valid under the process of 1.2.2.3.1 indicating that the licence is automatically validated under the agreement described in 1.2.2.3.1 and referencing the ICAO registration number of the agreement. The endorsement shall further include a list of all States that are party to the agreement. 1.2.2.3.2.1 provides a transition period for States that meet the requirements in 1.2.2.3.1 and have issued licences prior to the applicability of this Standard.

- 1.2.2.3.2.1** Until 31 December 2022, States that meet the requirements in 1.2.2.3.1 and have issued licences prior to 9 November 2017 may use other effective means, carried on board the aircraft or accessible, to indicate that the licences issued by the State are rendered valid in accordance with the agreement in 1.2.2.3.1.

*Note.-*

Guidance on the format for the endorsement is contained in Attachment C. The guidance also includes how to make use of an attachment to the licence, as part of the endorsement, for information that may change over time, i.e. the ICAO registration number of the agreement and the list of all States that are party to the agreement.

- 1.2.2.4 \*** A pilot licence issued by another Contracting State will be rendered valid by DGCA Sri Lanka for use in private flights.

*Note.-*

DGCA Sri Lanka, without formality, render valid a licence issued by another contracting state for use in private flights are encouraged to notify this facility in the Aeronautical information publications of Sri Lanka.

## **1.2.3 Privileges of the holder of a licence**

(Refer ANR 66(I))

- 1.2.3.1** DGCA Sri Lanka shall not permit the holder of a licence to exercise privileges other those granted by that licence.

## **1.2.4 Medical fitness**

(Refer ANR 59)

*Note 1.-*

Guidance material is published in the Manual of Civil Aviation Medicine (Doc 8984) and the Medical Procedure Manual (SLCAP 3020).

*Note 2.-*

To satisfy the licensing requirements of medical fitness for the issue of various types of licences, the applicant must meet certain appropriate medical requirements, which are specified as three classes of Medical Assessment. Details are given in 2, 3, 4 and 5 of IS 036 to provide the necessary evidence to satisfy the requirements of 1.2.4.1, DGCA Sri Lanka issues the licence holder with the appropriate Medical Assessment, Class 1, Class 2 or Class 3. This is done as a statement on the licence.

- 1.2.4.1** An applicant for a licence shall, when applicable, hold a Medical Assessment issued in accordance with the provisions of IS 036.

- 1.2.4.2** Sri Lanka shall apply, as part of its 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 increased medical risk.

*Note.-*

A frame work for the implementation and maintenance of a state safety programme is contained in Attachment A to Annex 19. Guidance on State safety programmes and safety management principles is contained in the Safety Management Manual (SMM) (Doc 9859) and the Manual of Civil Aviation Medicine (Doc 8984).

- 1.2.4.3** The DGCA Sri Lanka shall implement appropriate aviation-related health promotion for licence holders subject to a Medical Assessment to reduce future medical risks to flight safety.

*Note 1.-*

Standard 1.2.4.2 indicates how appropriate topics for health promotion activities may be determined.

*Note 2.-*

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

*Note 3.-*

Guidance on the relationship between the Licensing Authority and the implementation of Medical Assessment for licence holders is contained in the Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (Doc 9379).

- 1.2.4.4** The period of validity of a Medical Assessment shall begin on the day, the medical examination is performed, the duration of the period of validity shall be in accordance with the provisions of 1.2.5.2.

**\*\***

- 1.2.4.4.1** The period of validity of a Medical Assessment may be extended at the discretion of the DGCA Sri Lanka, up to 45 days.

*Note.-*

It is advisable to let the calendar day on which the Medical Assessment expires remain constant year after year by allowing the expiry date of the current Medical Assessment to be the beginning of the new validity period under the provision that the medical examination takes place during the period of validity of the current Medical Assessment but no more than 45 days before it expires.

- 1.2.4.5** Except as provided in 1.2.5.2.6, flight crew members or air traffic controllers shall not exercise the privileges of their licence unless they hold a current Medical Assessment appropriate to the licence.

- 1.2.4.6** DGCA Sri Lanka shall designate medical examiners, qualified and licensed in the practice of medicine, to conduct medical examinations of fitness of applicants for the issue or

renewal of the licences or ratings specified in (IS 051) and (IS 043), and of the appropriate licences specified in IS 55.

**\*** will be applicable on 8<sup>th</sup> November 2018

**\*\*** onwards is in Amendment 173

**1.2.4.6.1** Medical examiners shall have received training in Aviation Medicine and receive refresher training at regular intervals. Before designation, medical examiner shall demonstrate adequate competency in aviation medicine.

**1.2.4.6.2** Medical examiners shall have practical knowledge & experience such as flight experience simulator experience, on-site observation or any other hands-on experience as decided by DGCA Sri Lanka in which conditions, the holders of licences & ratings carryout their duties.

*Note.-*

Examples of practical knowledge and experience are flight experience, simulator experience, on-site observation or any other hands-on experience deemed by the DGCA Sri Lanka to meet this requirement.

**1.2.4.6.3** The competence of a medical examiner shall be evaluated periodically by the medical assessor.

**1.2.4.7** Applicants for licences or ratings for which medical fitness is prescribed shall sign and furnish to the medical examiner a declaration stating whether they have previously undergone such an examination and, if so, the date, place and results of the medical examiner of the last examination. They shall indicate to the examiner whether a Medical Assessment has previously been refused, revoked or suspended and if so, the reason for such refusal, revocation or suspension.

**1.2.4.7.1** Any false declaration to a medical examiner made by an applicant for a licence or rating shall be reported to DGCA Sri Lanka for such action as may be considered appropriate.

**1.2.4.7.2** The applicant for a Medical Assessment shall provide the medical examiner with a personally certified statement of medical facts concerning personal, familial and hereditary history. The applicant shall be made aware of the necessity for giving a statement that is as complete and accurate as the applicant's knowledge permits, and any false statement shall be dealt with in accordance with 1.2.4.7.1.

**1.2.4.8** Having completed the medical examination of the applicant in accordance with (IS 036), the medical examiner shall coordinate the results of the examination and submit a signed report, or equivalent, to DGCA Sri Lanka, in accordance with the requirements, detailing the results of the examination and evaluating the findings with regards to medical fitness.

**1.2.4.8.1** If the medical examiner submits his medical report in electronic format, adequate information about his identity shall be established.

**1.2.4.8.2** If the medical examination is to be carried out by two or more medical examiners, one of these shall be appointed to be responsible for coordinating the results of the examination and evaluating the findings with regard to medical fitness & signing the report.

**1.2.4.9** DGCA Sri Lanka shall use the services of a medical assessor or assessors to evaluate reports submitted to DGCA Sri Lanka by medical examiners.

**1.2.4.9.1** The medical examiner shall be required to submit sufficient information to DGCA Sri Lanka to enable that DGCA Sri Lanka undertake Medical Assessments Audits.

*Note.-*

The purpose of such auditing is to ensure that medical examiners meet applicable standards for good medical practice and aero medical risk assessment. Guidance on aeromedical risk assessment is contained in the Manual of Civil Aviation Medicine (Doc 8984) & Medical Procedure Manual (SLCAP 3020)

**1.2.4.10** If the medical Standards prescribed in IS 036 for a particular licence are not met, the appropriate Medical Assessment shall not be issued or renewed unless the following conditions are fulfilled:

- a) accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;
- b) relevant ability, skill and experience of the applicant and operational conditions have been given due consideration; and
- c) the licence is endorsed 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.

**1.2.4.11** Medical confidentiality shall be respected at all times by all involved with relevant tasks.

**1.2.4.11.1** All medical reports and records shall be securely held with accessibility restricted to authorized personnel.

**1.2.4.11.2** When justified by operational considerations, the medical assessor shall determine to what extent pertinent medical information is presented to relevant officials of the CAASL.

**1.2.4.11.3** In the event that sufficient evidence exists to demonstrate that a designated medical examiner (CAME) has not performed his/her duties in accordance with the prescribed procedures, DGCA may take action against him/her as per the procedures laid down SLCAP 5200, Enforcement Procedure Manual.

## **1.2.5 Validity of licences** **(Refer ANR 68)**

**1.2.5.1** DGCA Sri Lanka, having issued a licence, shall ensure that the privileges granted by that licence, or by related ratings, are not exercised unless the holder maintains competency and meets the requirements for recent experience established by DGCA Sri Lanka.

**1.2.5.1.1** DGCA Sri Lanka should establish maintenance of competency and recent experience requirements for pilot licences and ratings based on systematic approach to accident prevention and should include a risk assessment process and analysis of current operations including accident and incident data appropriate to Sri Lanka.

**1.2.5.1.2** DGCA Sri Lanka having issued a licence, shall ensure that other Contracting States are enabled to be satisfied as to the validity of licence.

*Note 1.-*

The maintenance of competency of flight crewmembers, engaged in commercial air transport operations, might be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with IS 013.

*Note 2.-*

Maintenance of competency may be satisfactorily recorded in the operator's records, or in the flight crew member's personal logbook or licence.

*Note 3.-*

Flight crew members may, to the extent deemed feasible by DGCA Sri Lanka, demonstrate their continuing Competency in flight simulation training devices approved by DGCA Sri Lanka.

*Note 4.-*

See the Manual of Criteria for the qualification of Flight Simulation Training Devices (Doc 9625).

*Note 5.-*

See the Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (Doc 9379) for guidance material on the development of a risk assessment process.

**1.2.5.2** Except as provided in 1.2.5.2.1, 1.2.5.2.2, 1.2.5.2.3, 1.2.5.2.4, 1.2.5.2.5 and 1.2.5.2.6 a medical assessment issued in accordance with 1.2.4.7 and 1.2.4.8 shall be valid from the date of the medical examination for a period not greater than

- 60 months for the private pilot licence - aeroplane, airship, helicopter and powered lift.
- 12 months for the commercial pilot licence - aeroplane, airship, helicopter and powered lift
- 12 months for the multi crew pilot licence aeroplane;
- 12 months for the airline transport pilot licence – aero plane, helicopter and powered lift.

- 60 months for the glider pilot licence
- 60 months for the free balloon pilot licence
- 12 months for the flight navigator licence
- 12 months for the flight engineer licence
- 48 months for the air traffic controller licence

\* Amendment 173 will be applicable on 8<sup>th</sup> November 2018

*Note 1.-*

The periods of validity listed above may be extended by up to 45 days in accordance with 1.2.4.4.1.

*Note 2.-*

When calculated in accordance with 1.2.5.2 and its sub paragraphs, the period of validity will be 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.

- 1.2.5.2.1** The period of validity of a medical assessment may be reduced when clinically indicated.
- 1.2.5.2.2** When the holders of airline transport pilot licences – aeroplane, helicopter powered lift, and commercial pilot licences- aeroplane, airship, helicopter and powered lift who are engaged in single crew commercial air transport operations, carrying passengers have passed their 40<sup>th</sup> birthday, the period of validity specified in 1.2.5.2 shall be reduced to six months.
- 1.2.5.2.3** When the holders of airline transport pilot licences- aeroplane, helicopter and powered lift, commercial pilot licences - aeroplane, airship, helicopter and powered lift, and multi crew pilot licences – aeroplane, who are engaged in commercial air transport operations, have passed their 60<sup>th</sup> birthday , the period of validity specified in 1.2.5.2 shall be reduced to six months.
- 1.2.5.2.4** When the holders of private pilot licences – aeroplane, airship, helicopter and powered – lift, free balloon pilot licences, glider pilot licences and air traffic controller licences have passed their 40<sup>th</sup> birthday, the period of validity specified in 1.2.5.2 shall be reduced to 24 months.
- 1.2.5.2.5** When the holders of private pilot licences - aeroplane, airship, helicopter and powered – lift, free balloon pilot licences, glider pilot licences and air traffic controller licences have passed their 50<sup>th</sup> birthday, the period of validity specified in 1.2.5.2 should be further reduced to 12 months.

*Note.-*

The periods of validity listed above are based on the age of the applicant at the time of undergoing the medical examination.

**1.2.5.2.6** Circumstances in which a Medical Examination may be deferred. A prescribed re-examination of a licence holder, operating in an area distant from designated medical examination facility may be deferred at the discretion of DGCA Sri Lanka, provided that such deferment shall only be made as an exception and shall not exceed.

- a) a single period of six months in the case of a flight crew member of an aircraft engaged in non-commercial operations;
- b) two consecutive periods each of three months in the case of a flight crew member of an aircraft engaged in commercial operations provided that in each case a favorable medical report is obtained after examination by a designated medical examiner of the area concerned, or, in cases where such a designated medical examiner is not available, by a physician legally qualified to practice medicine in that area. A report of the medical examination shall be sent to the DGCA Sri Lanka where the licence was issued;
- c) in the case of a private pilot, a single period not exceeding 24 months where the medical examination is carried out by an examiner designated under 1.2.4.6 by the Contracting State in which the applicant is temporarily located. A report of the medical examination shall be sent to DGCA Sri Lanka where the licence was issued.

## **1.2.6 Decrease in medical fitness** (Refer ANR 63)

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

**1.2.6.1.1** DGCA Sri Lanka should ensure that all Sri Lankan licence holders are provided with clear guidelines on medical conditions that may be relevant to flight safety and when to seek clarification or guidance from a medical examiner or DGCA Sri Lanka.

*Note.-*

Guidance on physical and mental conditions and treatments that are relevant to flight safety about which information may need to be forwarded to DGCA Sri Lanka, is contained in the Manual of Civil Aviation Medicine (Doc 8984) given in Appendix 2.

**1.2.6.1.2** DGCA Sri Lanka should as far as practicable ensure that the licence holders do not exercise the privileges of their licences and related ratings during any period in which their medical fitness has, from any cause, decreased to an extent that would have prevented the issue or renewal of their Medical Assessment

## **1.2.7 Use of psychoactive substances** (Refer IS 035)

**1.2.7.1** Holders of licences provided for in this IS 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.

**1.2.7.2** Holders of licences provided for in this IS shall not engage in any problematic use of substances.

**\* Amendment 173 will be applicable on 8<sup>th</sup> November 2018**

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

*Note.-*

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

## **1.2.8 Approved Training and Approved Training Organization. (Refer ANR 74 to 80 & IS 67)**

*Note.-*

The qualifications required for the issue of personnel licences can be more readily and speedily acquired by applicants who undergo closely supervised, systematic and continuous courses of training, conforming to a planned syllabus or curriculum. Provision has accordingly been made for some reduction in the experience requirements for the issue of certain licences and ratings prescribed in IS 051, in respect of an applicant who has satisfactorily completed a course of approved training.

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

**1.2.8.2** The issuance of an approval for a training organization and the continued validity of the approval will depend upon the training organization being in compliance with the requirements 1.Appendix '2' of this IS and the relevant provisions contained in Annex 19.

*Note 1.-*

Annex 19 includes safety management provisions for an approved training organization that is exposed to safety risks related to aircraft operations during the provision of its services. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

*Note 2.-*

Guidance on approval of a training organization can be found in the Manual on the Approval of Training Organizations (Doc 9841).

- 1.2.8.3** Approved training for flight crew and air traffic controllers shall be conducted within an approved training organization.

*Note.-*

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

- 1.2.8.4** Competency based approved training for aircraft maintenance personnel shall be Conducted within an approved training organization

*Note.-*

A comprehensive training scheme for the aircraft maintenance (technician/ engineer/ mechanic) licence, including the various levels of competency, is contained in the Procedures for Air Navigation Services – Training (Doc 9868, PANS-TRG)

## **1.2.9 Language proficiency**

- 1.2.9.1** Aeroplane, airship, helicopter and powered - lift pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communication to the level specified in the language proficiency requirements in Appendix 1.
- 1.2.9.2** Flight engineers, and glider and free balloon pilots should have the ability to speak and understand the language used for radiotelephony communications.
- 1.2.9.3** Flight navigators required to use the radiotelephone aboard an aircraft shall demonstrate the ability to speak and understand the language used for radiotelephony communications.
- 1.2.9.4** Flight navigators required to use the radiotelephone aboard an aircraft should demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix '1'.
- 1.2.9.5** The language proficiency of Aeroplane, airship, helicopter and powered -lift pilots, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level.
- 1.2.9.6** The language proficiency of Aeroplane, airship, helicopters and powered lift pilots, flight navigators required to use the radiotelephone aboard an aircraft, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level

6) should be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level, as follows:

- a) Those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and
- b) Those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.

*Note 1.-*

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

*Note 2.-*

The provisions of 1.2.9 refer to Annex 10, Volume II, Chapter 5, whereby the language used for radiotelephony communications may be the language normally used by the station on the ground or English. In practice, therefore, there will be situations whereby flight crew members will only need to speak the language normally used by the station on the ground.

### **1.3.1 Designated Examiners**

DGCA, Sri Lanka shall designate Examiners qualified and licenced appropriately to conduct knowledge tests and skill tests on applicants for issue, renewal or re-activation of a licence or a rating as required by IS 008, IS 036, IS 048, IS 049, IS 051, IS 055, IS 066, IS 067 and IS 71.

- 1.3.1.1** Before Designation, Designated Examiners shall demonstrate adequate competency in the appropriate tasks of their designation.
- 1.3.1.2** Designated Examiners shall have received training and refresher training related to their designation.
- 1.3.1.3** Designated Examiners shall exercise the privileges of their Authorization as designated Examiners according to the procedures specified in the appropriate manuals.
- 1.3.1.4** A Designated Examiner Authorization issued by DGCA shall remain valid for three (03) years from the date of issue unless it is suspended, revoked or cancelled.
- 1.3.1.5** Flight Test Examiner Authorization/ Practical Test Examiner Authorization / Medical Examiner Authorization / Knowledge Examiner Authorization / Practical Test Assessor Authorization / Check Controller Authorization issued by DGCA may be suspended or revoked, in the event that the DGCA has sufficient evidence to demonstrate that a Flight Test Examiner / Practical Test Examiner / Designated Medical Examiner (CAME) / Knowledge Examiner / Practical Test Assessor / Check Controller has not performed his/her duties in accordance with the prescribed procedures.  
DGCA may take action against him/her as per section 67 of Act no.14 of 2010 and the procedure laid down in SLCAP 0005 "Aviation Enforcement Policy and Procedures

Manual” in the event that sufficient evidence exists to demonstrate that a designated Flight Test Examiner / designated Practical Test Examiner / Designated Medical Examiner (CAME) / designated Knowledge Examiner / designated Practical Test Assessor / designated Check Controller has not performed his/her duties in accordance with the prescribed procedures.

- 1.3.1.6** The standard of designated flight test examiners, practical test examiners shall be monitored by an inspector or senior examiner specifically appointed by DGCA as per the guidance given in SLCAP 3050, SLCAP 3060, SLCAP 3070, SLCAP 3100.
- 1.3.1.7** Designated Flight Test Examiner shall ensure that flight crew meet knowledge and skills requirements specified for issuance of relevant licences and ratings during the skill test.

## **1.4.1 Records Management System**

- 1.4.1.0** CAASL shall maintain a personal file for each applicant and licence holder, which contains all correspondence, applications, assessments, examination results and other licensing documentation in accordance with the filing procedure established in SLCAP 3030 “PEL Office Procedure Manual” and SLCAP 5150 “ CAASL Record Management Manual”.

All medical reports and records shall be securely held with accessibility restricted to authorized personnel and CAASL shall ensure the highest level of security and confidentiality when handling the individual Medical Reports and files.

Generating copies, dissemination of medical information, divulging medical information, discussing medical information and limitations, extraction of medical reports shall be considered prohibited unless explicit approval is obtained from the individual concern, Medical Examiners concern, Medical Assessor’s concern or DGCA’s concern.

All records pertaining to personnel licences, and any other licences and certificates shall be archived in the following manner and shall ensure the closing and archiving the personal files and records as applicable in accordance with the procedure described in Chapter 5 of SLCAP 5150 CAASL Record Management Manual . The file for an individual applicant shall be closed when it will be no more required and Inactive files are identified for removal and then archived.

Inactive files are files that are no longer required or files on which no action has taken place for two years.

- 1.4.1.1** Any record pertaining to personnel licences shall be archived until the death of the holder or till the record is seventy-five (75) years old.
- 1.4.1.2** Records pertaining to lapsed licences up to two (02) years shall be placed in the Archives Unit of the Personnel Licencing Section.
- 1.4.1.3** Records pertaining to lapsed licences for more than two (02) years shall be placed in the Archives Unit (Record Room) of the CAASL.

- 1.4.1.4** Records on archiving as per paras 1.4.1.1, 1.4.1.2 and 1.4.1.3 above shall be maintained in the Personnel Licencing Section and copies of the records shall be provided to the Archives Unit and the Cooperate Division of CAASL.

## **PART II**

### **Additional requirements for Personnel Licences and Rating**

#### **1. Director General to issue Licences, relevant Ratings, Certificates of Competency or Permits**

Director General may issue or render valid one or more of the following licences, relevant ratings, certificates of competency or permits to a person who is engaged in safety sensitive functions in civil aviation if the person has satisfied the relevant requirements specified in the applicable Implementing Standards.

a) Flight crew

- Student pilot licence
- private pilot — aeroplane, airship, helicopter or powered-lift;
- commercial pilot — aeroplane, airship, helicopter or powered-lift;
- multi-crew pilot — aeroplane;
- airline transport pilot — aeroplane, helicopter or powered-lift
- glider pilot;
- free balloon pilot;
- flight navigator;
- flight engineer.

b) Other personnel

- aircraft maintenance (technician/engineer/ mechanic);
- air traffic controller;
- flight operations officer/flight dispatcher
- aeronautical station operator
- Cabin crewmember

## **2. Requirements to be satisfied**

The qualifications and such other requirements as knowledge, flight instructions, experience, skill and medical fitness that should be satisfied, application procedure, terms and conditions to be complied with, fees to be paid, privileges to be granted to the holder of any such licence, relevant rating, certificate of competency or permit, and grounds for amendment of such licence, relevant rating, certificate of competency or permit and for their renewal or revalidation shall be as specified in the respective Implementing Standards.

## **3. Validation of foreign licence, relevant rating, certificate of competency or permit**

- I. The requirements to be satisfied and procedures to be followed for validation of a licence, relevant rating, certificate of competency or permit issued by another Contracting State, shall be as specified in the applicable Implementing Standards.
- II. The validity of the validation certificate shall not be extended beyond the period of validity of the licence, relevant rating, certificate of competency or permit and shall cease to be valid, if the licence, relevant rating, certificate of competency or permit upon which it was issued is revoked or suspended.

## **4. Privileges of the holder of a licence relevant rating, and certificate of competency or permit**

- I. A holder of a licence, relevant rating, and certificate of competency or permit shall not exercise privileges other than those granted by that licence, relevant rating, certificate of competency or permit as applicable, which is endorsed in the licence, relevant rating, and certificate of competency or permit.
- II. No holder of a licence, relevant rating, certificate of competency or permit shall exercise the privileges granted by that licence, rating, certificate of competency or permit unless the holder maintains competency and satisfies the requirements for recent experience specified in the applicable Implementing Standards.
- III. No holder of a licence, relevant rating, and certificate of competency or permit shall exercise the privileges of his licence, relevant rating, and certificate of competency or permit while under the influence of alcohol or any psychoactive substance which might render him unable to safely and properly exercise the privileges.
- IV. No holder of a licence, relevant rating, and certificate of competency or permit who is required to hold a Medical Assessment shall exercise the privileges of his licence, relevant rating, and certificate of competency or permit unless he holds a current Medical Assessment appropriate to the licence, relevant rating, and certificate of competency or permit which is specified in the applicable Implementing Standards.
- V. No holder of a licence, relevant rating, and certificate of competency or permit who is required to hold a Medical Assessment shall exercise the privileges of his licence, relevant rating, and certificate of competency or permit at any time when he is aware of any decrease in his medical fitness which might render him unable to safely and properly

exercise the applicable privileges.

- VI. A holder of a licence, relevant rating, and certificate of competency or permit shall be in possession of the licence, relevant rating, and certificate of competency or permit physically or electronically and be prepared to produce it on demand by a person authorized by the Director General, when he is exercising the privileges of the licence, relevant rating, and certificate of competency or permit.

## 5. Medical fitness

- I. An applicant for a licence, relevant rating, certificate of competency or permit shall, if required by the applicable Implementing Standards, hold a valid Medical Assessment as specified in the applicable Implementing Standards and issued by an aviation medical examiner approved by Director General.
- II. The period of validity of a Medical Assessment shall begin on the day the medical examination is performed and duration of the period of validity of the Medical Assessment shall be as specified in the applicable Implementing Standards.
- III. The period of validity of a Medical Assessment may be extended, at the discretion of the Director General up to 45 days.
- IV. Director General may designate medical examiners who are qualified and licensed in the practice of medicine and trained specifically in aviation medicine to conduct medical examinations of fitness of applicants for the issue, revalidate or renewal of the licence, relevant rating, and certificate of competency or permit.
- V. Director General may use the services of medical assessors who are qualified and licensed in the practice of medicine and trained specifically in aviation medicine to evaluate Medical Assessments submitted to him by medical examiners.
- VI. An applicant for licence, relevant rating, certificate of competency or permit for which medical fitness is required shall sign and furnish to the medical examiner a declaration stating whether he has previously undergone such an examination and, if so, the date, place and result of the last examination. The applicant shall indicate to the examiner whether a Medical Assessment has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension.
- VII. Every holder of a licence, relevant rating, certificate of competency or permit who is required to hold a Medical Assessment as specified in the applicable Implementing Standard and who suffers –
- (a) any personal injury as a result of any accident-
    - (i) either occurring during the performance of the duties for which he is authorized in terms of a licence, relevant rating, certificate of competency or permit ; or
    - (ii) occurring otherwise than during the performance of those duties and involving any incapacity for work ; or

- (b) any illness involving or likely to involve incapacity for work for a period of seven days or more ; or
- (c) any of the injuries or illnesses specified in the respective Implementing Standards

shall, as soon as may be practicable after the occurrence of the injury or illness, notify in writing, to the Director General, of the particulars of the injury or illness, and any incapacity resulting there from ; and shall forward with such notification a report upon the matter by a qualified medical practitioner approved by the Director General :-

- VIII. The Director General may require any person who furnishes a notification in accordance with paragraph (7) of this regulation to undergo a full or partial medical examination.
- IX. Any holder of a licence, relevant rating, certificate of competency or permit who is incapacitated for work in the circumstances specified in paragraph (7) of his regulation shall not resume duties for which he is authorized in terms of a licence, relevant rating, certificate of competency or permit until the medical practitioner whose services he has obtained or, a medical board appointed by Director General for the purpose, has certified that the incapacity has disappeared.
- X. A female holder of a licence, relevant rating, certificate of competency or permit under this Regulation who becomes aware that she is pregnant shall forthwith cease all flying duties and shall not resume flying until she has been medically examined and pronounced fit by a medical practitioner approved by the Director General.
- XI. The provisions herein before contained relating to medical examinations shall, so far as they are applicable, apply to every medical examination which any person is required by this regulation to undergo as though such person were an applicant for the renewal of a licence, relevant rating, certificate of competency or permit.

#### **6. Re-examination of a holder of licence, relevant rating, and certificate of competency or permit**

- I. Whenever the Director General considers it necessary in the interests of the safety of air navigation for the holder of a licence, relevant rating, certificate of competency or permit to demonstrate his continued fitness or proficiency in the capacity for which the licence, relevant rating, certificate of competency or permit is held, the Director may require the holder of the licence, relevant rating, certificate of competency or permit to undergo a medical examination or practical test or theoretical examination as the case may require.
- II. Where the result of any such examination or test is unsatisfactory, the Director General may suspend or cancel the licence, relevant rating, certificate of competency or permit in such manner as he thinks fit.

#### **7. Problematic smoking, use of alcohol or psychoactive substances**

- I. No holders of licence, relevant rating, certificate of competency or permit issued or rendered

valid under these Regulations shall engage in any problematic use of alcohol, psychoactive substances or smoking whilst exercising the privileges.

- II. Whenever it is deemed expedient or necessary, Director General shall have the power to require any person who holds any licence, relevant rating, certificate of competency or permit issued under this Regulation, to undergo, prior to commencement, during or just after completion of a duty period, the required test, check or examination as specified in the respective Implementing Standards that is aimed at determining whether a person has been under the problematic use of substances that jeopardizes safety of functions to be performed by the person and it shall be the duty of such person to subject himself to such a test, check or examination. A refusal to comply shall be deemed to be an offence and the Director-General shall have the power, in addition to any punishment that may be imposed for such offence by a court, to cancel any licence, relevant rating certificate of competency or permit issued to such person by the Director General
- III. Director General should ensure, as far as practicable, that any holder of licence, relevant rating, and certificate of competency or permit who is identified to have engaged in any kind of problematic use of substances is and removed from his safety critical functions immediately.

## 8. Language Proficiency

A Holder of a licence, relevant rating, and certificate of competency or permit of aeroplane, airship, helicopter and powered-lift pilot, air traffic controller and aeronautical station operator shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in the applicable Implementing Standards.

## 9. Age Limits

An applicant for a licence, relevant rating, certificate of competency or permit under these Regulations shall have satisfied the following age requirements to qualify for such licence, relevant rating, certificate of competency or permit.

I.	Student Pilot Licence	- 16 years
II.	Private Pilot Licence	- 17 years
III.	Commercial Pilot Licence	- 18 years
IV.	Multi-Crew Pilot Licence	- 18 years
V.	Air Transport Pilot Licence	- 21 years
VI.	Glider Pilot Licence	- 16 years
VII.	Free Balloon Pilot Licence	- 16 years
VIII.	Flight Navigator Licence	- 18 years

IX.	Flight Engineer Licence	- 18 years
X.	Aircraft Maintenance Licence	- 18 years
XI.	Air Traffic Controller Licence	- 21 years
XII.	Flight Operations Officer Licence	- 21 years
XIII.	Aeronautical Station Operator Licence	- 18 years
XIV.	Cabin Crewmember Certificate	- 18 years

### **10. Application for a Licence relevant rating, and certificate of competency or permit**

Each application for a licence, relevant rating, certificate of competency or permit shall be supported by documentation to demonstrate compliance with the applicable theoretical knowledge, practical training and experience and other requirements at the time of submission of application satisfying the requirements specified in the applicable Implementing Standards and be accompanied with the fees as specified in the regulations on fees and charges.

### **11. Proof of Identity**

An applicant for a licence, relevant rating, certificate of competency or permit under these regulations may be required by an authorized person to provide satisfactory proof of his identity immediately prior to-

- a. Undergoing any examination, test or check : and
- b. The issue of any licence, relevant rating, certificate of competency or permit

### **12. Limitations and Endorsements**

- I. The Director General may impose any special limitations in connection with the exercise of privileges conferred by the licence, relevant rating, certificate of competency or permit and make endorsements as may be required on the licence, relevant rating, certificate of competency or permit at any time during the period, licence, relevant rating, certificate of competency or permit remain in force.
- II. Limitations endorsed on a licence, relevant rating, certificate of competency or permit may be removed upon satisfactory completion of requirements as specified by the Director General.

### **13. Aviation Training Institution and Approved Training**

- I. No person or organization shall conduct any training for grant of any licence, relevant rating, and certificate of competency or permit under these regulations without a licence or permit issued by Director General which is in force.

- II. Director General in granting a licence or permit for the establishment of Aviation Training Institution under section 69 of the Act, shall ensure that the applicant has satisfied the requirements in relation to organization, personnel, equipment, facility, services and procedures specified in the applicable Implementing Standards.
- III. With reference to section 2.1.3 and 3.2.2 of IS 055 DGCA shall approve training programme for Air Traffic Control Licence & Ratings as procedures specified in SLCAP 3060.
- IV. With reference to section 3.3.1 of IS 049 DGCA shall approve training programme for Flight Operations Officer Licence as procedures specified in SLCAP 3100.
- V. With Reference to IS 66 & IS 147, DGCA shall approve training programme for Aircraft Maintenance Licence as procedures specified in SLCAP 3070.

#### **14. Instructors**

- I. No person shall act as an instructor for the conduct of Approved Training or Approved Training Organization for the issue, revalidate & renew of a licence, relevant rating, certificate of competency or permit under these Regulations unless that person has received a licence, relevant rating, certificate of competency or permit from the Director General after satisfying the requirements specified in the applicable Implementing Standards
- II. The organization, qualification of instructors to be employed, the nature of the equipment, curriculum, record keeping and other facilities, services and other requirements that should be satisfied in order to be qualified for issue of a licence, relevant rating, certificate of competency or permit under subsection (1) to provide training courses and the fees payable for the issue, revalidate & renewal and amendment of such licence, relevant rating, certificate of competency or permit shall be as specified in the applicable Implementing Standards.

#### **15. Authority to act as an examiner**

No person shall act as an examiner for the conduct of any practical, theoretical medical or examination for the issue, revalidate or renewal of a licence, relevant rating, certificate of competency or permit under these Regulations unless he has been duly authorized by the Director General for the purpose and such examinations shall be conducted in conformity with the procedures, terms and conditions specified in the applicable Implementing Standards.

#### **16. Use of Synthetic Training Devices and use of Laboratories for Medical Examination**

- I. No person shall use a synthetic training device for the conduct of any physical training or practical check, test or examination for the issue, revalidate or renewal of a licence, relevant rating, certificate of competency or permit under these Regulations unless the Synthetic Training Device has been duly authorized by the Director General for the purpose.
- II. No person shall use any laboratory for the conduct of any medical examination for the issue, revalidate or renewal of a licence, relevant rating, certificate of competency or permit under these Regulations unless the laboratory has been duly authorized by the Director General for the purpose.

- III. Requirements to be satisfied by the synthetic training devices for the conduct of physical training or practical check, test or examination or laboratories for the conduct of medical examinations shall be as specified in the applicable Implementing Standards.

#### **17. Fees for an examinations, tests, licences rating, and certificate of competency or permit**

- I. The fees payable in respect of any preliminary medical examinations, theoretical examinations and practical tests of skill connected with the issue, revalidate or renewal of licence, relevant rating, certificate of competency or permit under these regulations shall be as specified in the regulations relating to fees and charges.
- II. The fees payable in respect of issue, revalidate or renewal of licence, relevant rating, certificate of competency or permit thereof to a person for the conduct of training under these regulations or for grant of issue, revalidate or renewal of licence, relevant rating, certificate of competency or permit thereof for a synthetic training devices or medical laboratory shall be as specified in the regulations relating to fees and charges.

#### **18. Recognition of military qualifications**

In the process of granting a licence, relevant rating, certificate of competency or permit to a military personnel, Director General may consider grant of certain exemptions in relation to standard requirements if he is satisfied that the applicant has satisfied the requirements specified in the applicable Implementing Standards

#### **19. Grant of Exemption**

Any person seeking exemption in relation to any of the provision contained in these Regulations or Implementing Standards shall submit an applications to the Director General in conformity with the applicable regulations relating to grant of exemptions. Director General may grant such exemption if he is personally satisfied that grant of such standards would not compromise safety in civil aviation or weaken the applicable safety standards.

#### **20. Suspension or Cancellation of a Licence relevant rating, certificate of competency or permit**

- I. The Director General may, on sufficient ground being shown to his satisfaction and after due investigation by him and with effect from such date as he may determine, cancel, suspend or endorse any Licence, relevant rating, certificate of competency or permit issued under these regulations, or cancel, suspend or vary and particulars or other matters entered by him in or on Licence, relevant rating, certificate of competency or permit and may, in any particulars case, provisionally suspend any such Licence, relevant rating, certificate of competency or permit pending investigation of any case.
- II. Every holder or other person having possession or custody of any licence, certificate, relevant rating, approvals, authorization or permit under these regulations, shall within a reasonable

time after a demand for the same has been made by the Director General, surrender the same to the Director of General any particulars case, provisionally suspend any such licence, relevant rating, certificate of competency or permit pending investigation of any case.

- III. The Director General may, on being satisfied that the original of any licence, relevant rating, certificate of competency or permit issued under these regulations, has been lost or destroyed, issue a copy thereof or a similar document in replacement thereof on receipt of the appropriate fee specified in the regulations relating to fees and charges.
- IV. Upon application being made to the Director General for the renewal of any licence, relevant rating, certificate of competency or permit issued under these regulations, after such licence, relevant rating, certificate of competency or permit has ceased to be in force, the Director may, if he is satisfied that the conditions applicable in accordance with the provisions of these regulations to the renewal of such licence, relevant rating, certificate of competency or permit have been complied with, either renew the same or, if he thinks fit, issue to the applicant a fresh licence, relevant rating, certificate of competency or permit, as the circumstances of the case may require.

## **21. Acceptable Means of Compliance**

- I. Director General may issue Acceptable Means of Compliance explaining how one or more requirements specified in the Act, Regulations or Implementing Standards could be satisfied in relation to the issue of a licence, relevant rating, certificate of competency or permit by a person applying to the Director General for the requisite authorization.
- II. An applicant has the option to comply with the Acceptable Means of Compliance in relation to a particular requirement and if he has chosen the option of complying, the Director General may issue the requisite authorization to which the Acceptable Means of Compliance relates.
- III. A person may, on his own initiative, propose other means of satisfying the requirements of the applicable requirement, provided any such proposal will be subject to separate assessment by Director General to determine whether the authorization can be issued.
- IV. Every Acceptable Means of Compliance issued by the Director General shall be readily available for the reference of members of the public and be published in the official website of the Civil Aviation Authority of Sri Lanka.

**APPENDIX '1'**  
**REQUIREMENTS FOR PROFICIENCY IN LANGUAGES USED FOR**  
**RADIOTELEPHONY COMMUNICATIONS.**  
(IS 1.1 - section 1.2.9, refers)

**1. General**

*Note.-*

The ICAO language proficiency requirements include the holistic descriptors at Section 2 and the ICAO Operational Level (Level 4) of the ICAO Language Proficiency Rating Scale in Attachment A. The language proficiency requirements are applicable to the use of both phraseologies and plain language.

To meet the language proficiency requirements contained in IS 035, Section 9, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the DGCA, compliance with the holistic descriptors at Section 2 and with the ICAO Operational Level (Level 4) of the ICAO Language Proficiency Rating Scale in Attachment A.

**2. Holistic descriptors**

Proficient speakers shall:

- a) communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations.
- b) communicate on common, concrete and work-related topics with accuracy and clarity.
- c) use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context.
- d) handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and
- e) Use a dialect or accent which is intelligible to the aeronautical community.

**APPENDIX '2'****APPROVED TRAINING ORGANIZATION**

(IS 1.1 - section 1.2.8, refers)

**2.1. Issue of Approval**

- (i) The Issuance of an approval for a training organization and the continued validity of the approval shall depend upon the training organization being in compliance with the requirements.
- (ii) The approval document shall contain at least the following:
  - a) Organizations' name and location;
  - b) Date of issue and period of validity (Where appropriate);
  - c) Terms of approval.

**2.2. Training and procedures manual**

- (i) The training organization shall provide a training and procedures manual for the use and guidance of personnel concerned. This manual may be issued in separate parts and shall contain at least the following information:
  - a) A general description of the scope of training authorized under the organization's terms of approval;
  - b) The content of the training programme offered including the courseware and equipment to be used;
  - c) A description of the organization's quality assurance system in accordance with paragraph 2.6;
  - d) A description of the organizations facilities;
  - e) The name, duties and qualification of the person designated as responsible for compliance with the requirements of the approval in paragraph 2.6(i)
  - f) A description of the duties and qualification of the personnel designated as responsible for planning, performing and supervising the training in paragraph 2.6(ii).
  - g) A description of the procedures used to establish and maintain the competence of instructional personnel as required by paragraph 2.6(iii)
  - h) A description of the method used for the completion and retention of the training records required by paragraph 2.7
  - i) A description, when applicable, of additional training needed to comply with an operator's procedures and requirements; and
  - j) When DGCA Sri Lanka has authorized an approved training organization to conduct the testing required for the issuance of a licence or rating in accordance with paragraph 2.9, a description of the selection, role and duties of the authorized personnel, as well as the applicable requirements established by DGCA Sri Lanka.

- (ii). The training organization shall ensure that the training and procedures manual is amended as necessary to keep the information contained therein up to date.
- (iii). Copies of all amendments to the training and procedures manual shall be furnished promptly to DGCA and all related organizations or persons to whom the manual has been issued.

### **2.3. Training Programmes**

- (i). DGCA Sri Lanka shall approve a training programme for a private pilot licence, commercial pilot licence or an instrument rating or an aircraft maintenance (technician /engineer / mechanic) licence that allows alternative means of compliance with the experience requirements established by IS 055 and IS 66 provided that the approved training organization demonstrates to the satisfaction of DGCA Sri Lanka that the training provides level of competency at least equivalent to that provided by the minimum experience requirements for personnel not receiving such approved training.

*Note.-*

A comprehensive training scheme for the aircraft maintenance (technician /engineer / mechanic) licence, including the various levels of competency, is contained in the Procedures for Air Navigation Services – Training (DOC 9868, PANS-TRG).

- (ii). DGCA Sri Lanka shall approve a training programme for multi-crew pilot licence, provided that the approved training organization demonstrates to the satisfaction of DGCA Sri Lanka that the training provides a level of competency in multi-crew operations at least equal to that met by holders of a commercial pilot licence, instrument rating and type rating for an aeroplane certificated for operation with a minimum crew of at least two pilot.

*Note.-*

Guidance on the approval of training programmes can be found in the Manual on the Approval of Training Organizations (Doc 9841)

### **2.4. Quality assurance system**

The training organization shall establish a quality assurance system, acceptable to DGCA Sri Lanka granting the approval, which ensures that training and instructional practices comply with all relevant requirements.

### **2.5. Facilities**

- i. The facilities and working environment shall be appropriate for the task to be performed and be acceptable to DGCA Sri Lanka.
- ii. The training organization shall have, or have access to, the necessary information, equipment, training devices and material to conduct the courses for which it is approved.

- iii. Synthetic training devices shall be qualified according to ICAO DOC 9625/AN 938 Manual of criteria for Qualification of Flight Simulation Training Devices and their use shall be approved to ensure that they are appropriate to the task.

*Note.-*

The Manual of Criteria for the Qualification of Flight Simulation Training Devices (Doc 9625) provides guidance on the approval of flight simulation training device.

## **2.6. Personnel**

- i. The training organization shall nominate a person responsible for ensuring that it is in compliance with the requirements for an approved organization.
- ii. The organization shall employ the necessary personnel to plan, perform and supervise the training to be conducted.
- iii. The competence of instructional personnel shall be according to procedures and to a level acceptable to DGCA Sri Lanka.
- iv. The training organization shall ensure that all instructional personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities. The training programme established by the training organization shall include training in knowledge and skills related to human performance.

*Note.-*

Guidance material to design training programmes to develop knowledge and skills in human performance can be found in the Human Factors Training Manual (Doc 9683)

## **2.7. Records**

- i. The training organization shall retain detailed student records to show that all requirements of the training course have been met as agreed by DGCA Sri Lanka.
- ii. The training organization shall maintain a system for recording the qualifications and training of instructional and examining staff where appropriate.
- iii. The records required by 2.7 (i) above shall be kept for a minimum period of two years after completion of the training. The records required by 2.7 (ii) shall be retained for a minimum period of two years after the instructor or examiner ceases to perform a function for the training organization.

## **2.8. Oversight**

DGCA Sri Lanka shall maintain an effective oversight programme of the approved training organization to ensure continuing compliance with the approval requirements.

## **2.9. Evaluation and checking**

When DGCA Sri Lanka has authorized an approved training organization to conduct the testing required for the issuance of a licensing or rating, the testing shall be conducted by personnel authorized by DGCA Sri Lanka or designated by the training organization in accordance with criteria approved by DGCA Sri Lanka.

### **APPENDIX '3'**

#### **MEDICAL FACTS FOR PILOTS.**

(IS 1.1 - Para 1.2.6.1.1 refers)

#### **SAMPLE BRIEFING GIVEN TO PILOTS**

##### **INTRODUCTION**

Just as an aircraft is required to undergo regular checks and maintenance, pilots are also required to undergo regular medical examinations to ensure fitness to fly. One does not have to be a perfect specimen to fly. Many deficiencies can be compensated: short sight, for example, by wearing spectacles or contact lenses. In some cases you may be required to demonstrate by a medical flight test that you can compensate for a certain defect of potential significance to flight safety.

It should be recalled that humans are essentially earth-bound creatures. However, if one is aware of certain aeromedical factors and pays attention to these, we can leave the earth's surface and fly safely. What follows concerns the more important factors with which you should be familiar prior to flying.

Modern industry's record in providing reliable equipment is very good. When the pilot enters the aircraft, he becomes an integral part of the man-machine system. He is just as essential to a successful flight as the control surfaces. To ignore the pilot in preflight planning would be as senseless as failing to inspect the integrity of the control surfaces or any other vital part of the machine. The pilot himself has responsibility for determining his fitness prior to entering the cockpit for flight.

##### **GENERAL HEALTH**

While piloting an aircraft, an individual should be free of conditions which are harmful to alertness, ability to make correct decisions, or affect reaction times. Persons with conditions that are apt to produce sudden incapacitation, such as seizures, serious heart trouble, uncontrolled diabetes or diabetes requiring insulin, and certain other conditions hazardous to flight, are medically unfit. Conditions such as acute infections, anaemias and peptic ulcers are disqualifying while they last. Consult your designated medical examiner when in doubt about any aspect of your health status, just as you would consult a licensed aviation mechanic when in doubt about the engine status.

## **SPECIFIC AEROMEDICAL FACTORS**

### **Fatigue**

Fatigue generally slows reaction times and causes errors due to inattention. In addition to the most common cause of fatigue, insufficient rest and loss of sleep, the pressures of business, financial worries and family problems can be important contributing factors. If your fatigue is marked prior to a given flight, don't fly. Ensure you obtain a good night's sleep before you fly and if scheduling prevents this, discuss your situation with an aviation medicine specialist.

### **Hypoxia**

Hypoxia, in simple terms, is a lack of sufficient oxygen to keep the brain and other body tissues functioning properly. Wide individual variation occurs with respect to susceptibility to hypoxia. In addition to a progressive lack of oxygen at higher altitudes, anything interfering with the blood's ability to carry oxygen can contribute to hypoxia (e.g. anaemias, carbon monoxide, certain drugs).

Your brain has no built-in alarm system to let you know when you are not getting enough oxygen. A major early symptom of hypoxia is an increased sense of well-being (referred to as "euphoria"). This progresses to slowed reaction, impaired thinking ability, unusual fatigue and a dull headache.

The symptoms are slow but progressive, insidious in onset, and become marked at altitudes above 10 000 ft (3 300 m). Night vision, however, can be impaired at altitudes even lower than that.

If you observe the general rule of not flying above 10 000 ft without supplemental oxygen, you are unlikely to get into trouble.

### **Alcohol**

Do not fly while under the influence of alcohol — in many countries this is a legal requirement. Find out what advice or regulations are provided by your Licensing Authority and abide by these. Your company may have more stringent requirements. Typical regulations demand a minimum of 8 to 24 hours of abstinence from alcohol before reporting for duty. Remember that if a significant amount of alcohol has been consumed, performance can be affected up to 48 or even 72 hours after the last drink, because of a hangover effect. Even small amounts of alcohol in the system can adversely affect judgement and decision-making abilities.

Your body metabolizes alcohol at a fixed rate, and coffee or medication does not affect this.

Do not fly with a hangover or a "masked hangover" (symptoms suppressed by aspirin or other medication).

### **Medication**

Self-medication when you are flying can be hazardous. Simple "over-the-counter" (obtained without prescription) remedies such as aspirin, antihistamines, cold tablets, cough mixtures,

laxatives, tranquillizers and appetite suppressors may have unwanted effects. Herbal remedies can also have significant adverse effects. The safest rule is to take no medicine while flying, except on the advice of your aeromedical advisor. The condition for which the medicine is required may of itself be hazardous to flying, even when the symptoms are suppressed by the medication.

Certain specific medicines which have been found in post mortem samples after fatal aircraft accidents are: antihistamines (widely prescribed for hay fever and other allergies); tranquillizers (prescribed for nervous conditions, hypertension, sleep disorders and other conditions); weight-reducing drugs (amphetamines and other appetite suppressing drugs can produce sensations of well-being which have an adverse effect on judgement); barbiturates or nerve “tonics” (barbiturates produce a marked suppression of mental alertness).

Following general anaesthesia, a period of at least 48 hours should be spent on the ground. Twelve hours is reasonable for a local anaesthetic. If in any doubt concerning the right time to resume flying, then seek appropriate medical advice.

### **Spatial disorientation**

On the ground we know which way is “up” by the combined use of three senses:

- a) Vision — we can see where we are in relation to fixed objects;
- b) Pressure — gravitational pull on muscles and joints tells us which way is down;
- c) Special parts in our inner ear — the otoliths — tell us which way is down by gravitational pull.

It should be noted that rotation of the head is detected by the fluid in the semi-circular canals of the inner ear, and this tells us when we change angular position. However, in the absence of a visual reference, such as flying into a cloud, the rotatory accelerations can be confusing, especially since their forces can be misinterpreted as gravitational pulls on the muscles and otoliths. The result is often disorientation.

Pilots should have an instructor demonstrate manoeuvres which will produce disorientation. Once experienced, later unanticipated incidents of disorientation can be overcome as long as instruments (for pilots trained to use them) or reliable ground references are available. Such a demonstration will show you how confusing the false inputs from the inner ear can be. Many accidents have occurred when pilots without adequate instrumentation in the cockpit or without proper training in instrument flying have flown into instrument meteorological conditions, and have become disorientated.

Pilots are susceptible to experiencing disorientation at night, and in any flight condition when outside visibility is reduced to the point that the horizon is obscured. An additional type of vertigo is known as flicker vertigo. Light, flickering at certain frequencies, from four to twenty times per second, can produce unpleasant reactions in some persons. These reactions may include nausea, dizziness, unconsciousness, or even reactions similar to an epileptic fit. In a single engine propeller aeroplane heading into the sun, the propeller may cut across the sun to give this flashing effect, particularly during landings when the engine is throttled back and propeller rotation is relatively slow. These undesirable effects may be avoided by not staring directly through the propeller for more than a moment, and by making frequent but small changes in RPM. The flickering light traversing helicopter blades has also been known to cause this effect, as has the reflection from rotating beacons on aircraft while flying in clouds. If the beacon

is bothersome, shut it off during these periods, advise air traffic control and remember to turn it back on when clear of clouds.

### **Carbon monoxide**

Carbon monoxide (CO) is a colourless, odourless, tasteless product of an internal combustion engine and is always present in exhaust fumes. The concentration in exhaust fumes from piston engines is much greater than from turbine engines — carbon monoxide poisoning from turbine engine exhausts is rare.

For biochemical reasons, carbon monoxide has a greater ability than oxygen to combine with the haemoglobin of the blood. Furthermore, once carbon monoxide is absorbed in the blood, it sticks “like glue” to the haemoglobin and actually prevents oxygen from attaching to the haemoglobin.

Most cockpit heaters in light aircraft work by air flowing over the exhaust manifold, being heated and then delivered to the cockpit. So if you have to use the heater, be very wary if you smell exhaust fumes — there may be a leak from the engine exhaust pipe into the air used for cockpit warming. The onset of symptoms is insidious, with “blurred thinking”, a possible feeling of uneasiness, and subsequent dizziness. Later headache occurs. Immediately shut off the heater, open the air ventilators, descend to lower altitudes, and land at the nearest airfield. Consult a designated medical examiner for advice. It may take several days to fully recover and clear the body of the carbon monoxide. Use carbon monoxide detectors in the cockpit, since affected pilots may otherwise be completely unaware that they are being exposed to CO.

### **Vision**

To avoid eye fatigue in bright light, use colour-neutral (rather than coloured) sunglass lenses as this will permit normal colour discrimination. If you need to use correcting lenses for good vision (for near or distant vision) make sure you keep a spare pair of spectacles within easy reach, so that you can easily find them if you lose or break your first pair, or develop problems with contact lenses if you wear them. Visit an eye care specialist if you notice a change in visual acuity.

### **Middle ear discomfort or pain**

Certain persons (whether pilots or passengers) have difficulty balancing the air pressure on either side of the ear drum while descending. Sometimes pressure equalization can occur at different times in each ear, resulting in a form of disorientation named “alternobaric vertigo”. Problems arise if a head cold or throat inflammation keeps the Eustachian tube (from the middle ear to the throat) from opening properly. If this trouble occurs during descent, try swallowing, yawning, or holding the nose and mouth shut and forcibly attempting to exhale (Valsalva manoeuvre — pilots should know how to do this manoeuvre, and if you do not, ask your medical examiner about it). If no relief occurs, climb back up a few thousand feet (if feasible) to relieve the pressure on the eardrum. Then descend again, using these measures. A more gradual descent may be tried, and it may be necessary to go through several climbs and descents to “stair step” down. If a nasal inhaler is available, it may afford relief. If trouble persists several hours after landing, consult your aeromedical advisor.

*Note.-*

If you develop symptoms of a cold when airborne, you may possibly avoid trouble by using a nasal spray, kept as part of the flight kit. Take aviation medicine advice before purchasing one.

Remember that if you fly with an upper respiratory infection, you are at increased risk of developing middle ear or sinus problems.

### **Panic**

The development of panic in inexperienced pilots is a process which can give rise to a vicious circle with unwise and precipitous actions resulting in increased anxiety. If lost or in some other predicament, forcibly take stock of yourself and do not allow panic to mushroom. Panic can be controlled. Fear is a normal protective reaction and occurs in normal individuals. If you believe it occurs frequently or too easily to you, seek medical advice — there are techniques that can be learned and used to reduce the effects.

### **Underwater diving**

If you go flying after scuba diving or any underwater activity using compressed air, you should be aware that if insufficient time has elapsed between surfacing and take-off, the medical consequences can be serious or even fatal. Due to greatly increased pressures underwater, nitrogen is absorbed into the blood and tissues. The amount depends on the depth and duration of exposure. If take-off follows the dive too soon to allow the body to rid itself normally of this excess nitrogen, the gas may form bubbles in the blood or tissues causing discomfort, pain, difficulty in breathing, or even death, at altitudes of 7 000 ft (2 135 m) or less, altitudes attained by most light aircraft. Older or overweight individuals are more susceptible to this condition. As a general rule, individuals should not fly within 12-48 hours following diving using compressed air, the difference depending mainly on the duration and how deep the dive(s) were.

Occasionally a medical emergency arises as a result of compressed air diving, when a diver has been unable to adequately decompress before surfacing. In some of these cases air-evacuation is the only feasible method of getting the patient to a recompression chamber in time to treat the condition. Flight should be at the lowest possible altitude to avoid aggravating the condition. Information concerning diving, decompression and flying is readily available from various diving organizations, such as the Professional Association of Diving Instructors (PADI): <http://www.padi.com/padi/default.aspx>.

### **Blood donations**

Following a blood donation, time off flying is needed for the body to readjust. Allow 24 hours before flying after donation unless you have received specific medical advice that this period can be safely shortened.

### **Hyperventilation**

Hyperventilation, or over-breathing, is a disturbance of respiration that may occur in individuals as a result of emotional tension or anxiety. Under conditions of emotional stress, fright or pain, the breathing rate may increase, causing increased lung ventilation. More carbon dioxide is exhaled from the lungs than is produced by the body and as a result, carbon dioxide is “washed out” of the blood. The most common symptoms of hyperventilation are: dizziness; hot and cold sensations; tingling of the hands, legs and feet; muscle spasms; nausea; sleepiness; and finally unconsciousness.

In an individual who is behaving in an unusual manner, and you suspect hyperventilation or hypoxia (the initial symptoms are similar), assume the condition is hypoxia and supply oxygen.

Select 100 per cent oxygen, check the oxygen supply, oxygen equipment and flow mechanism. If the condition was hypoxia, recovery is rapid. If the symptoms persist, consciously slow the breathing rate until symptoms clear and then resume normal breathing rate. Breathing can be slowed by breathing into a paper bag, and this increases the amount of carbon dioxide taken into the lungs, since expired carbon dioxide is re-breathed.

## **APPENDIX 4.**

### **REQUIREMENTS FOR THE ISSUE OF THE MULTI-CREW PILOT LICENCE — AEROPLANE**

*(IS 051 Section 5, refers)*

#### **1. Training**

- 1.1 In order to meet the requirements of the multi-crew pilot licence in the aeroplane category, the applicant shall have completed an approved training course. The training shall be competency-based and conducted in a multi-crew operational environment.
- 1.2 During the training, the applicant shall have acquired the knowledge, skills and attitudes required as the underpinning attributes for performing as a co-pilot of a turbine-powered air transport aeroplane certificated for operation with a minimum crew of at least two pilots.

#### **2. Assessment level**

The applicant for the multi-crew pilot licence in the aeroplane category shall have satisfactorily demonstrated performance in all the nine competency units specified in 3, at the advanced level of competency as defined in Attachment B.

*Note.— The training scheme for the multi-crew pilot licence in the aeroplane category, including the various levels of competency are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868).*

#### **3. Competency units**

The nine competency units that an applicant has to demonstrate in accordance with Chapter 2, 2.5.1.3, are as follows:

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

- 9) perform after-landing and aeroplane post-flight operations.

*Note 1.— Competency units are broken down into their constituent elements, for which specific performance criteria have been defined. Competency elements and performance criteria are contained in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868).*

*Note 2.— The application of threat and error management principles is a specific competency unit that is to be integrated with each of the other competency units for training and testing purposes.*

#### 4. Simulated flight

*Note.—The Manual of Criteria for the Qualification of Flight Simulation Training Devices (Doc 9625), Volume I -Aeroplanes, provides guidance on the qualification of flight simulation training devices used in training programmes. The manual defines seven examples of flight simulation training devices based on the specific training being conducted, including four examples for the four phases of multi-crew pilot licence training defined in Attachment B of Annex 1. The numbering system used in Doc 9625 is different from the numbering used in 4.2.*

- 4.1 The flight simulation training devices used to gain the experience specified in Chapter 2, 2.5.3.3, shall have been approved by the Licensing Authority.
- 4.2 Flight simulation training devices shall be categorized as follows:
- a) *Type I.* E-training and part tasking devices approved by the Licensing Authority that have the following characteristics:
- involve accessories beyond those normally associated with desktop computers, such as functional replicas of a throttle quadrant, a sidestick controller, or an FMS keypad; and
  - involve psychomotor activity with appropriate application of force and timing of responses.
- b) *Type II.* A flight simulation training device that represents a generic turbine-powered aeroplane.

*Note.—This requirement can be met by a flight simulation training device equipped with a daylight visual system and otherwise meeting, at a minimum, the specifications equivalent to FAA FTD Level 5, or JAA FNPT II, MCC.*

- c) *Type III.* A flight simulation training device that represents a multi-engined turbine-powered aeroplane certificated for a crew of two pilots with enhanced daylight visual system and equipped with an autopilot.

*Note.— This requirement can be met by a flight simulation training device equipped with a daylight visual system and otherwise meeting, at a minimum, the specifications equivalent to a Level B simulator as defined in JAR STD 1A, as amended; and in FAA AC 120-40B, as amended, including Alternate Means of Compliance (AMOC), as permitted in AC 120-40B. (Some previously evaluated Level A full flight simulators that have been approved for training and checking required manoeuvres may be used.)*

- d) *Type IV.* Fully equivalent to a Level D flight simulator or to a Level C flight simulator with an enhanced daylight visual system.

*Note.— This requirement can be met by a flight simulation training device meeting, at a minimum, the specifications equivalent to a Level C and Level D simulator as defined in JAR STD 1A, as amended; and in FAA AC 120-40B, as amended, including Alternate Means of Compliance (AMOC), as permitted in AC 120-40B.*

## ATTACHMENT 'A'

### ICAO LANGUAGE PROFICIENCY RATING SCALE

#### 1.1 Expert, extended and operational levels

<i>LEVEL</i>	<i>PRONUNCIATION</i> <i>Assumes a dialect and/or accent intelligible to the aeronautical community.</i>	<i>STRUCTURE</i> <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	<i>VOCABULARY</i>	<i>FLUENCY</i>	<i>COMPREHENSION</i>	<i>INTERACTIONS</i>
Expert  6	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.
Extended  5	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.
Operational  4	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.
<i>Levels 1, 2 and 3 are on subsequent page</i>						

### Pre-operational, elementary and pre-elementary levels

LEVEL	<p><i>PRONUNCIATION</i> Assumes a dialect and/or accent intelligible to the aeronautical community.</p>	<p><i>STRUCTURE</i> Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</p>	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
<i>Levels 4, 5 and 6 are on preceding page.</i>						
Pre- operational  3	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete, and work- related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
Elementary  2	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
Pre- elementary  1	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

*Note.— The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication. Levels 1 through 3 describe Pre-elementary, Elementary, and Preoperational levels of language proficiency, respectively, all of which describe a level of proficiency below the ICAO language proficiency requirement. Levels 5 and 6 describe Extended and Expert levels, at levels of proficiency more advanced than the minimum required Standard. As a whole, the scale will serve as benchmarks for training and testing, and in assisting candidates to attain the ICAO Operational Level (Level 4)*

## ATTACHMENT B

# MULTI-CREW PILOT LICENCE — AEROPLANE LEVELS OF COMPETENCY

### 1. Core flying skills

The level of competency at which the applicant shall have complied with the requirements for the private pilot licence specified in 3.0 IS 051, including night flight requirements, and, in addition, have completed, smoothly and with accuracy, all procedures and manoeuvres related to upset training and flight with reference solely to instruments. From the outset, all training is conducted in an integrated multi-crew, competency-based and threat and error management (TEM) environment. Initial training and instructional input levels are high as core skills are being embedded in the ab initio application. Assessment at this level confirms that control of the aeroplane is maintained at all times in a manner such that the successful outcome of a procedure or a manoeuvre is assured.

### 2. Level 1 (Basic)

The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such a manner that if the successful outcome of a procedure or manoeuvre is in doubt, corrective action is taken. Performance in the generic cockpit environment does not yet consistently meet the Standards of knowledge, operational skills and level of achievement required in the core competencies. Continual training input is required to meet an acceptable initial operating standard. Specific performance improvement/personal development plans will be agreed and the details recorded. Applicants will be continuously assessed as to their suitability to progress to further training and assessment in successive phases.

### 3. Level 2 (Intermediate)

The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such a manner that the successful outcome of a procedure or manoeuvre is assured. The training received at Level 2 shall be conducted under the instrument flight rules, but need not be specific to any one type of aeroplane. On completion of Level 2, the applicant shall demonstrate levels of knowledge and operational skills that are adequate in the environment and achieves the basic standard in the core capability. Training support may be required with a specific development plan to maintain or improve aircraft handling, behavioural performance in leadership or team management. Improvement and development to attain the Standard is the key performance objective. Any core competency assessed as less than satisfactory should include supporting evidence and a remedial plan

### 4. Level 3 (Advanced)

The level of competency required to operate and interact as a co-pilot in a turbine-powered aeroplane certificated for operation with a minimum crew of at least two pilots, under visual and instrument conditions. Assessment confirms that control of the aeroplane or situation is maintained at all times in such a manner that the successful outcome of a procedure or manoeuvre is assured. The applicant shall consistently demonstrate the knowledge, skills and attitudes required for the safe operation of an applicable aeroplane type as specified in the performance criteria.

*Note.— Material on the development of performance criteria can be found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868).*

## ATTACHMENT C

### ENDORSEMENT FOR AUTOMATICALLY VALIDATED LICENCES

This attachment contains an example of the licence endorsement required for those licences automatically validated as per 1.2.2.3 . It also provides an example for an attachment XXX to the licence that includes the necessary details required by 1.2.2.3 where XXX would be a number or a mark.

#### 1. Licence endorsement example

1.1 The following endorsement should be on those licences automatically validated under a formal agreement between States: “Rendered valid as per Attachment XXX”.

1.2 Attachment XXX to the licence must be accessible (in any format, such as electronic or hard copy) when using the privileges and the automatic validation of the licence.

1.3 Attachment XXX is published by the State issuing the licence or by the Regional Safety Oversight Organization that manages the common set of licensing regulations on behalf of the States party to the formal agreement, and may be identical for all issued licences.

1.4 When the Regional Safety Oversight Organization publishes Attachment XXX, it should list the member States of the Regional Safety Oversight Organization in Attachment XXX.

1.5 When Attachment XXX is issued in a language other than English, IS 68 is applicable as Attachment XXX is part of the endorsement on the licence.

#### 2. Example of Attachment XXX

*	State or Regional Safety Oversight Organization Attachment XXX to automatically validated licences	*
1. The licence is automatically validated by all the States listed in 2 under an agreement registered with ICAO. The ICAO Registration Number is: _ _ _ _ .		
2. The ICAO Contracting States that automatically validate this licence are: ..... ..... .....		
(Signature or stamp) .....		
**		

\* For use by the State of issuance of the licence or the Regional Safety Oversight Organization.

\*\* When Attachment XXX is issued by a Regional Safety Oversight Organization, this box should contain the following: “The Regional Safety Oversight Organization member States are: [list of States members of the Regional Safety Oversight Organization].”